TM 8-500

WAR DEPARTMENT

TECHNICAL MANUAL

HOSPITAL DIETS

October 13, 1941

UNIVERSITY OF CALIFORNIA
LIBRARY
SEP 17 1942
DOCUMENTS DIVISION

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

U113
.2
TM 8:500

TECHNICAL MANUAL
No. 8–500

WAR DEPARTMENT,
WASHINGTON, October 13, 1941.

HOSPITAL DIETS

Prepared under direction of
The Surgeon General

	Paragraphs
CHAPTER 1. General	1–4
CHAPTER 2. Normal diet and its modifications.	
Section I. Normal diet composition	5–7
II. Dietary requirements	8–11
III. Liquid diet	12–14
IV. Soft, light, and regular diets	15–17
CHAPTER 3. Therapeutic and special diets.	
Section I. General	18
II. Ulcer	19–23
III. Retention	24–27
IV. Anticonstipation	28–31
V. High caloric	32–36
VI. Low caloric (reducing) and high vitamin	37–38
VII. Disease of colon	39–42
VIII. Liver and gall bladder diseases	43–45
IX. Pellagra preventive (P. P.)	46–49
X. Ketogenic (K. P.)	50–53
XI. Calcium	54–55
XII. Cardiovascular-renal (C. V. R.)	56–58
XIII. Diabetes mellitus	59–67
XIV. Purin	68–69
XV. Arthritis	70–71
XVI. Pernicious anemia	72–80
XVII. Alkaline and acid	81–83
XVIII. Food allergy	84–89
XIX. Tuberculosis	90–93
XX. Surgery	94–99
XXI. Children	100–103
XXII. Chronic lead poisoning	104–105
XXIII. Addison's disease	106–114

408936°—41——1

Digitized by Google M532893 Original from UNIVERSITY OF CALIFORNIA

CHAPTER 4. Instruction pamphlet data for patients. Paragraph
Section I. Purpose of pamphlets 115–116
II. Convalescent ulcer 117–128
III. Dietary instructions for various cases 129–136
IV. Diabetes mellitus 137–163
V. Test diets 164–168
CHAPTER 5. Menus.
Section I. Construction 169–177
II. Liquid, light, and regular diets 178–179
III. Therapeutic and special diet sample menus .. 180–195
APPENDIX I. Tables of food composition, weights, and measures ..... Page 267
II. Liver recipes 284
III. Recipes for diabetics 297
INDEX 301

This manual is largely the reproduction of the material in "Hospital Diets" by Lt. Col. D. B. Faust, M. C. U. S. Army.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

CHAPTER 1

GENERAL

	Paragraph
Purpose	1
Scope	2
Ordering diets	3
Inspection	4

1. Purpose.—In the successful operation of any large hospital no more important or troublesome problem presents itself than that dealing with the proper feeding of sick and injured patients. Often it is the deciding factor in the success or failure of treatment. In military hospital practice nutritional experts or capable dietitians are few in number and even when at hand ward officers will never obtain maximum results in feeding their patients unless they themselves are able to direct such personnel. This manual will greatly simplify the diet problems for ward and mess officers, dietitians, mess sergeants, and cooks in ordering and preparing diets suitable not only for the average patient under usual conditions but also for almost any specific case which may be encountered. The manual has been prepared in the interest of standardization in the construction of menus and preparation of diets in military hospitals.

2. Scope.—*a.* The compilation of diets is designed to meet the normal requirements of station or general hospital. It is a recognized fact that dietary treatment of many diseases constitutes a most important part of the therapy employed. To obtain the best results from dietotherapy it is important that the diets be as simple as possible in composition, methods of preparation and administration. An ordinary dietary procedure adapted to simplicity in execution is far better than a superior diet so complicated that proper administration cannot be expected. The diets contained herein are in general collected from various sources and believed to be best suited for military hospitals. It is believed the selections made will be adequate for practically all cases if due care is used when ordering the diets.

b. No attempt is made in this manual to discuss diets in detail or even to mention all the innumerable diets that may be constructed. It is believed that data contained herein will be helpful to ward officers, mess officers, nurses, dietitians, and mess sergeants.

3. Ordering diets.—*a.* Ordering any diet required by a patient will not be prevented. However, in the interest of all, diets should be limited to those contained in this manual whenever possible. When ordering special diets, ward officers should remember that dietitians

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

require definite information and such information as the following should be included:

(1) *High caloric.*—State the number of calories desired.

(2) *High carbohydrate, low fat.*—State the number of grams of carbohydrate and fat desired. Unless otherwise stated, total calories will be approximately that of a normal diet.

(3) *Low caloric and obesity.*—State total calories desired and when ratio of protein, carbohydrate, and fat is to be altered, state the number of grams of each.

(4) *Cardiovascular-renal.*—State total calories, grams of protein desired, amount of fluid permitted, and whether salt is to be omitted or reduced or remain unchanged.

(5) *Diabetic and ketogenic.*—State total calories, number of grams of protein, carbohydrates, and fat desired. If the case requires special attention to fluid intake, state amount of liquids permitted.

(6) *High vitamin.*—When a special vitamin is desired, the name of the vitamin and quantity should be stated.

(7) *High caloric, high vitamin.*—State total calories and vitamins desired.

(8) *Ulcer.*—State at what period it is desired to start the diet, namely, first week, second week, etc.

(9) *Operative.*—State the name of the operation and day desired for the particular diet to be given, for instance, appendectomy, 2d day diet, etc.

(10) *Dental.*—State whether liquid, light, soft, or full.

b. There is no limit to the number of special diets that have been formulated, tried, and found to be of therapeutic value. The condition of the patient will indicate to the medical officer the type of diet best suited to the case. It is in the unlimited field of special diets that the medical officer can be of most help to the patient by proper application of dietary principles before writing orders for this group of diets.

c. Certain of these diets are briefly outlined in this manual. However, unlimited combinations may be made. Such changes in combination will frequently be more beneficial to the patient than any other therapeutic measure. For instance, a high carbohydrate, low fat diet indicates that a total caloric intake above normal is desired and at the same time fats must be reduced to a minimum. One may go further and prescribe a high carbohydrate, low fat diet, total calories 2,000 or 2,500, as may be desired. This gives the dietitian definite information.

d. One may prescribe a fat free diet, but such a name is a mis-

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

nomer, for it is practically impossible to furnish such a diet. It means a diet freed from every vestige of oily and fatty foods before and after cooking, and comprised of foods very low in fat.

e. Anticonstipation diet is frequently referred to as an A. C. diet. Such a diet, unqualified, calls for foods that increase indigestible residue or bulk at least 100 percent above the so-called normal diet, avoiding foods that do not furnish such bulk, and at the same time effecting no change in the total caloric intake.

f. If a high caloric diet is prescribed, the actual number of calories not being stated, the dietitian will figure the diet for approximately a 50-percent increase in total calories. It should be remembered that this increase will be made up of carbohydrates and fats. Proteins are not usually increased or decreased unless specified.

g. Vitamin deficiency diseases are recognized more frequently now than formerly, and the vitamin that is lacking is identified in most instances. In such cases, it is not sufficient to prescribe a high vitamin diet. The most important part is to state the kind and quantity of vitamin desired. For instance, high vitamin A and B diet or high vitamin B_2 diet, etc. By the application of these simple fundamental principles of dietetics in ordering food for patients, there should be no trouble in obtaining diets that will greatly aid in their recovery.

4. Inspection.—*a.* The responsibility of the ward officer does not cease when the order is written. Many mistakes can and do occur between the kitchen and the patient. As a matter of interest and efficiency, ward officers should inspect all diets on their services at least once daily. These diets should be inspected for palatability, appearance, and content. Errors will be found daily and these should be corrected at once.

b. The medical officer who is too busy to inspect diets or discuss them with his patients will miss entirely a most valuable therapeutic procedure. This responsibility belongs to the ward officers and cannot be delegated to other ward personnel.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

CHAPTER 2

NORMAL DIET AND ITS MODIFICATIONS

		Paragraphs
SECTION I.	Normal diet composition	5–7
II.	Dietary requirements	8–11
III.	Liquid diet	12–14
IV.	Soft, light, and regular diets	15–17

SECTION I

NORMAL DIET COMPOSITION

	Paragraph
Calories	5
Food elements	6
Vitamin data	7

5. Calories.—The normal diet contains the various elements of food in sufficient amount and in the proper ratio to maintain normal weight and to furnish energy required in routine or prolonged effort. The consumption of food is variable, depending on many personal factors, climatic changes, and type of work performed. The table below gives fairly accurately the average caloric intake under various states of activity:

State	Calories per pound
Basal	10
Bed rest	12
Light work	15
Moderate work	18
Hard work	22

6. Food elements.—Carbohydrates, proteins, and fats furnish the calories. Carbohydrates furnish about 50 percent of the entire amount needed, while proteins furnish about 15 percent and fats the remainder. The normal diet should contain approximately—

a. Protein.—1 gram per kilo of body weight.

b. Carbohydrates.—About 50 percent of total caloric intake.

c. Fats.—Remainder of total caloric intake after carbohydrates and proteins are subtracted. It is usually 30 to 40 percent of the total caloric intake.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

d. Minerals.—(1) *Requirements.*—(*a*) *Iron.*—0.015 gram daily. (*b*) *Phosphorus.*—1.2 grams daily. (*c*) *Calcium.*—0.7 gram daily.

(2) *Sources.*

Mineral	Source	
	Excellent	Good
Iron	Apricots, dried. Beans, common or kidney. Beans, lima. Beet greens. Broccoli leaves. Chard. Cowpeas. Eggs, whole. Heart. Kale. Kidney. Lentils, dry. Liver. Meats, lean. Molasses. Peaches, dried. Poultry, dark meat. Shrimp. Tongue. Turnip greens. Water cress. Wheat bran.	Barley, whole. Beans, green. Brains. Broccoli. Brussels sprouts. Cabbage greens. Cane syrup. Collards. Corn meal. Dates. Endive. Figs. Lettuce (leaf lettuce only). Meats, fat. Oatmeal. Poultry, light meat. Prunes, dried. Raisins, seedless. Rye flour. Wheat flour.
Phosphorus	Barley, whole. Beans, common or kidney. Beans, lima. Buttermilk. Cheese, Swiss. Cottonseed flour. Cowpeas. Crab. Eggs. Fish. Liver. Lobster.	Almonds. Barley, pearled. Broccoli. Brussels sprouts. Buckwheat flour. Cheese, American. Cheese, Cheddar. Cheese, cottage. Clams. Cocoa. Collards. Corn meal. Lentils, dry.
Phosphorus (Con.)	Meats, lean. Milk, all forms. Oysters. Poultry. Shrimp. Soybeans.	Oatmeal. Parsnips. Peanuts. Peas. Rye flour. Wheat flour. Wheat bran.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Mineral	Source	
	Excellent	Good
Calcium	Broccoli. Buttermilk. Cabbage. Chard. Cheese, Swiss. Clams. Collards. Dandelion greens. Kale. Milk, all forms. Molasses. Mustard greens. Turnip greens. Water cress.	Almonds. Beans, green. Beans, kidney. Beans, lima. Carrots. Celery. Crab. Cream. Eggs. Endive. Kohlrabi. Lettuce, head or leaf. Lobster. Maple syrup. Okra. Parsnips. Rutabagas. Soybeans. Turnips.

Other mineral constituents of the body will usually be furnished in adequate amounts without special attention to diet.

e. Water.—In sufficient quantity to maintain proper water balance.

f. Vitamins.—(1) These substances are essential to the diet. Actual quantities required cannot be measured. In fact, the body requirement is the result of much experimental work. Dosage in most cases has been increased from year to year. The treatment of vitamin deficiency diseases, especially of the subclinical types, is by proper diet. However, in some cases it becomes necessary to administer vitamin concentrates or the crystalline preparations.

(2) In discarding impure concentrates for the crystalline vitamins there is gradually occurring a change of dosage from the unit system to that based on the weight of the patient. While much progress has been made there is much to be desired from the laboratory in tests to determine the deficiency of some of these vitamins. Recognition of vitamin deficiencies by laboratory methods and the establishment of accurate effective dosage lags far behind the discovery of these vitamins. New ones are being discovered with incredulous rapidity. It is believed that in therapy effort should be made to

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

prevent vitamin deficiency diseases by the use of proper diet whenever possible and also to use this method in the treatment of these conditions unless concentrates and crystalline forms are absolutely required. There is much to suggest in many of these conditions that the pure vitamin isolated is more effective in the presence of possibly yet undiscovered vitamins or fractions that are present in certain foods. No doubt there are many well-developed vitamin deficiency diseases in every community and many more belonging to the subclinical groups.

(3) It should be remembered that vitamin consumption from bottles and boxes is the fad of the Nation. Fewer purchases from the drug store and proper attention to construction of the family menu and preparation of the meals will solve the Nation's vitamin deficiencies, except those due to economic causes. Any therapeutic diet should be carefully considered from the standpoint of preventing a vitamin deficiency. Consideration should be given to the length of time it will be necessary to maintain the patient on the diet. Most vitamins are stored in the body and there is sufficient stored in many instances to last several weeks or months. Others are depleted rather rapidly. Much of that written about vitamins today will have to be changed tomorrow. Concentrates should be restricted to actual need and this will be relatively infrequent if more attention is given to properly balanced diets in and out of hospital.

g. Residue.—Residue from foods should be sufficient in amount to insure normal bowel movements. Fruits and vegetables furnish this residue. Three to four average servings daily should be sufficient.

7. Vitamin data.—The following discussion and table give some pertinent information about some of the better-known vitamins.

a. Vitamin A.—Vitamin A is required for normal vision in dim light or darkness. Lack of, or a lowered intake, of this vitamin produces night blindness. More severe grades of deficiency of this vitamin produce changes in the skin and the lining membranes of the bronchial tubes, gastro-intestinal, urinary and genital tracts, and an opaque condition of the cornea of the eye. The vitamin can be produced in the human body by the splitting of a pigment substance present in the green leafy and yellow vegetables. It is present in high concentration in the oils expressed from the livers of various fishes. Green and yellow vegetables, such as kale, collards, yellow squash, broccoli, carrots, lettuce, turnip greens, and sweet potatoes are excellent vegetable sources of carotene, the precursor of vitamin A. Cream, butter, cheese, egg yolks, canned sardines and salmon, and the livers of animals are the best animal sources. Fish-liver oils contain tre-

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

mendous amounts of vitamin A and are used when it is necessary to treat severe deficiency.

b. Vitamin B_1 (thiamin).—This vitamin is necessary for the derivation of energy from sugars and starches. Together with riboflavin, nicotinic acid, pyridoxine, and pantothenic acid, it comprises the more familiar of the B vitamins. When the diet contains large amounts of sugar and starchy food and an inadequate amount of this protective nutrient, disturbances of metabolism due to thiamin deficiency and liability to infection are produced. The first effect is on the appetite; then various nervous symptoms appear, irritability, loss of interest in important matters, forgetfulness, ready fatigue, and finally total mental and physical inadequacy and reduced resistance to infection may result. Severe deficiency results in neuritis or the symptoms of heart failure. These constitute the disease known as beriberi. Good food sources of thiamin are lean meats, liver of any kind, whole grain cereals, enriched flour and bread, peas, dried beans, peanuts, and many of the green vegetables. Considerable loss of vitamin B_1 may occur in the preparation of food. Vitamin B_1 is soluble in water, hence, discarding the water in which foods are soaked or cooked results in an appreciable loss of the vitamin. Thiamin is destroyed by heat, especially in the presence of alkali. The losses from cooking meats are in the neighborhood of 40 percent, of vegetables 20 percent and, when the water used in cooking is discarded, an additional 25 percent may be lost.

c. Vitamin B_2.—Riboflavin, like thiamin, is required for the utilization of energy from sugars and starches and is probably involved in the metabolism of fat. Like thiamin, deficiency is produced by a diet containing excessive amounts of purified carbohydrate foods such as sugars and highly milled, unenriched flour, and inadequate amounts of protective foods. Lack of riboflavin is likely to cause soreness and cracking of the lips, especially at the corners of the mouth; vision may be disturbed from cloudiness of the cornea of the eye and the eyes may become unduly sensitive to bright light. Poor distant vision and inability to see distinctly in dim light are additional symptoms. Riboflavin is present in small amounts in many foods; the best sources are liver, lean meat, eggs, milk, cheese, and green leafy vegetables.

d. Nicotinic acid.—This vitamin, like thiamin and riboflavin, is necessary for the conversion of the sugars and starches into energy, and there is reason to believe that the three vitamins have interlocking functions in this process. Mild deficiency of nicotinic acid may result

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

in "nervousness," mental depression, lack of mental stamina, forgetfulness, loss of appetite, and diarrhea or constipation. Later there may be soreness and redness of the tongue and ulceration of the gums which may be mistaken for "trench mouth." Severe prolonged deficiency causes the disease called pellagra. Good sources of nicotinic acid are lean meats of all kinds, liver, fish, whole grain cereals, enriched flour and bread, and green leafy vegetables.

e. Vitamin C (ascorbic acid).—The function of ascorbic acid is to solidify the cement substance which holds the cells of various body tissues together; lack of the vitamin is usually first shown by evidence of undue fragility of the capillary blood vessels. The gums become swollen and tender, and bleed easily; minor injuries produce large bruises. Severe deficiency causes the disease scurvy in which there are large hemorrhages into the skin, muscles, joint cavities, and between the bones and the membranes of their skinlike covering. There is also, as with other vitamins, reduced resistance to infection. Ascorbic acid is present in large amounts in citrus fruits, tomatoes, cabbage, and leafy vegetables. Most fruits and green vegetables are good sources of this vitamin. It is easily destroyed by heat, destruction being accelerated in the presence of an alkaline reaction, so that no food containing ascorbic acid should be subjected to long boiling nor should soda be added to any green vegetable to preserve the color during cooking. The losses in preparation of food are approximately one-third of the original content.

f. Vitamin D (calciferol).—Vitamin D is necessary for satisfactory absorption of calcium and the precipitation of calcium and phosphorus in the proper proportions for the preservation of the normal structures of the bones and teeth. In normal adults this vitamin is produced in ample amounts by the action of ultraviolet rays of sunlight on compounds contained in the fat underlying the skin. While this vitamin is present in butter, cream, eggs, liver, and certain fish, for the soldier exposed to sunlight food sources are unimportant and signs of deficiency are not likely to appear.

g. Vitamin K.—This substance is necessary for the formation of one of the important factors in the clotting of blood. When it is deficient, excessive and prolonged bleeding may occur from trivial wounds. It is very unlikely that this vitamin could be deficient in a dietary of natural foods. The green leafy vegetables, tomatoes, and hog livers are the best sources of vitamin K.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Vitamin	Adult daily requirement	Normal blood level	Daily adult dose	Forms for use	Body storage	Test for deficiency
A (carotene)	2,000–6,000 IU	80–100 IU per 100 cc	Average, 10,000–25,000 IU. Advanced, 50,000–100,000 IU.	Fish liver oils. Hypo not satisfactory.	Good. Slow depletion.	Not satisfactory. Biophotometric, fair.
B complex B1, thiamin	330–660 IU or 1–2 mg.	Trace	10–25 mg or 3,300–8,250 IU.	Thiamin by mouth, parenterally or subcutaneously.	Limited. Rapid depletion.	Not satisfactory. Less than 12 IU in urine daily indicates deficiency.
B2 or G, riboflavin	1.5–3 mg or 600–1,200 B–S units.	Not known	5 mg daily or 2,000 B–S units.	Riboflavin orally	Good. Slow depletion.	Good. Urine excretion and blood.
Nicotinic acid, P. P. factor.	Not known	0.15 mg per 100 cc	500 mg orally. 50–100 mg per hypo.	Nicotinic acid orally, parenterally or subcutaneously.	Limited. Probably rapid depletion.	Not satisfactory.
B6, pyridoxine	Unknown	Unknown	Questionable. Possibly 50 mg orally.	Pyridoxine 50 mg ampules.	Unknown	Not satisfactory.
C, ascorbic acid	50–100 mg or 1,000–2,000 IU.	1–1.5 mg. per 100 cc	600–900 mg or 12,000–18,000 IU.	Ascorbic acid orally, subcutaneously or intravenously.	Questionable	Good. Photoelectric colorimetric method on blood. Urine excretion method.
D	600 IU	Not known	10,000–20,000 IU	Cod liver oil USP. Viosterol USP orally.	Limited	Good. Calcium, phosphorus, and phosphates in blood.
E	Unknown	Unknown	1 to 4 tsps	Wheat germ oil, orally	Unknown	None.
K	Unknown	Unknown	Cerophyl 10–15 gm. Klotogen 1–3 gm. Thyloquinone orally, 2 to 4 mg; intravenously, 1 to 2 mg.	Vitamin K orally; bile salts with thyloquinone orally and intravenously.	Unknown	Good. Use the prothrombin time.

It must be remembered that dosage of vitamins will vary from the above, especially in pregnant women, children, and in the type of diet consumed.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION II
DIETARY REQUIREMENTS

Paragraph
General 8
Serving portion standard 9
In disease 10
Classification of diets 11

8. General.—*a.* The requirements in diet are difficult to determine accurately. There are many factors concerned, especially when complications resulting from disease are considered. There must be a working basis upon which all menus are constructed and for this purpose the needs for the average size person on a full diet in the hospital are used. It is realized that many will find difficulty in consuming this amount, while others are large eaters and will require more. Average requirements in grams on full diet are—

(1) Protein	70–75
(2) Carbohydrate	300–350
(3) Fats	90–120
(4) Calcium	0.7
(5) Iron	0.015
(6) Phosphorus	1.2

b. Under ordinary conditions a diet satisfying these proportions will furnish to the body adequate energy from the carbohydrates, principally; adequate fat replacement and storage from the fatty elements and the protein will be sufficient for repair and maintenance of the muscular tissues. All minerals are important, but calcium, iron, and phosphorus may not be found in sufficient amounts in unbalanced diets. It is therefore wise to keep these three minerals in mind when menus are being prepared. Dietary deficiencies will not result on the above-mentioned requirements if the following articles are included in the menus and consumed daily:

(1) Meat, 3 to 3½ ounces.

(2) Milk, 1 pint on full or regular diets and 1 quart on all other diets.

(3) Eggs, at least one in some form.

(4) Vegetables, two to three servings of starchy vegetables such as potato. One to two servings of a raw leafy or watery vegetable.

(5) Fruit, one serving of a cooked and one serving of a raw fruit.

(6) Butter, 1½ ounces.

(7) Sugar, 2 ounces.

9. Serving portion standard.—Frequently there is a wide divergence of opinion as to the amount of a food in serving portions.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

When the opinion on the ward differs from that in the kitchen, either a wastage of food or complaints from the wards that insufficient food is sent, will result. The following serving portions are accepted as standard throughout hospitals:

Food	One portion
Bacon	3 strips.
Butter	1 square.
Bread	2 slices.
Cereal:	
Cooked	½ cup.
Dry	1 individual package.
Fruits:	
Cooked	½ cup.
Raw	1 medium size orange or its equivalent.
Jelly or jam	1 tablespoonful.
Meat	3″ x 2½″ x 1″.
Vegetable:	
Raw	1 average tomato or equivalent.
Cooked	½ cup.

10. In disease.—*a. General.*—In discussing the normal requirements of a diet, disease has not been considered. Therapeutic diets are merely modifications of normal requirements. Such modifications may be great or small. In all instances, however, they must fill the following requirements:

(1) Satisfy body demands for each disease or pathological condition.

(2) Adequate to sustain normal nutritional requirements.

(3) Prepared so that patient will be satisfied with the diet.

(4) So prepared that forced feedings may be employed if needed.

b. Change.—(1) *Purpose.*—Modified normal diets are known by certain names and in any institution uniform names must be used for identification purposes. Otherwise, improper diets will reach the patient. All of these modified diets have been changed for therapeutic reasons as follows:

(*a*) Changed consistency to promote tolerance by patient and aid digestion.

(*b*) To meet increased or decreased caloric intake.

(*c*) To increase or decrease individual elements required.

(2) *Name.*—Changes to meet these needs will naturally cause great changes in the appearance of the trays even though the total daily caloric intake is the same. Modifications mentioned above naturally

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

lead to naming these diets. Under (1) (*a*) above in which there is a change of consistency may be mentioned such diets as—

(*a*) Liquid.
(*b*) Soft.
(*c*) Bland.

(3) *Application.*—(*a*) In certain diseases it may be necessary to increase or decrease the total caloric intake. This may be done by supplementing the regular diet with certain foods when an increase is desired, and if a decrease is desired by limiting the portions served. In most instances, however, the menu must be changed to meet not only the desired caloric intake, but frequently the consistency of the food must also be changed. It may be desired to go even further and alter the individual elements of the food over that found in the normal diet. Examples of diets for increased caloric intake are those used in goiter and typhoid fever, while the diets representing the decreased caloric intake are those used in obesity, weight reduction, etc. Under (1) (*c*) above fall a large group of diets necessary as therapeutic measures in which there is a change in quantity and kind of elements used in the normal diet. In this large group of diets it may be necessary to combine with these changes modifications of consistency of the food, and also changes in the total caloric intake. The principal elements in this group that will have to be adjusted are—

1. Proteins.
2. Carbohydrates.
3. Fats.
4. Vitamins.
5. Minerals.

(*b*) It is in this group that most special diets arise. It is readily understood why an adjustment of these elements must be made in diabetes mellitus. The same may be said of certain forms of nephritis when it is desirable to reduce protein intake, or in some of the types of jaundice when fat is not well tolerated. It is also readily understood why individual constituents are changed to insure the necessary intake of the important minerals. In the vitamin deficiency diseases, the greatest therapeutic agent known is that found in diet which can be furnished when individual constituents are changed to insure the adequate intake of the proper vitamin. Variations or changes in constituents may be extended to include alteration in constituents of the diet to furnish more or less residue as desired. In such a case protein must remain the same, fats reduced, and certain forms of carbohydrates increased. *In special diets a normal vitamin intake should be assured.*

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

11. Classification of diets.—*a.* The diets available are—

(1) Liquid.
(2) Soft.
(3) Light.
(4) Regular (full or general).
(5) Special or therapeutic.

b. All of these are constructed on the basis of the regular diet. Liquid, soft, light, and special diets are prepared in and obtained from the general diet kitchen and regular diets only are prepared in the main kitchen.

SECTION III

LIQUID DIET

	Paragraph
Composition	12
Sample menus	13
Tube feeding	14

12. Composition.—*a.* Liquid diets are composed of fluids that are either liquid when taken into the mouth or become liquid before reaching the stomach. These foods afford little residue or indigestible material. They must be easily digestible, often concentrated, and free from irritating condiments and mechanical irritants. Such diets should be given in small portions, 60-400 cc, depending on the nature of the case. The feedings should be repeated every 2 hours unless there are contraindications. At least six to eight feedings are required daily. The caloric intake in this type of diet varies. In some cases it may be desirable to have the patient take considerably more than the basal requirement. It is not unusual for liquid diets in many cases to run as high as 2,000 or more calories, with a proper ketogenic-antiketogenic ratio.

b. Liquid diets are constituted from—

Clear broth.
Coffee or substitutes.
Tea.
Fruit juices.
Milk.
Cocoa milk.
Chocolate milk.
Malted milk.
Gelatin dessert.
Ice cream and ices.
Sherbet.
White of egg.
Bouillon.
Vegetable juices, strained.
Albumen.
Gruels.
Eggnog.
Albumenized drinks.
Cream soups.
Vegetable soups, strained.
Carbonated drinks.
Grape juice.
Junket.
Buttermilk.
Beef juice.
Boiled custards.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. When it is desired to convert the liquid into a high caloric liquid diet add, in considerable amounts, cream to all milk drinks; lactose, glucose, sugar, and jelly, used freely; and special ice cream giving a high fat and carbohydrate content.

13. Sample menus.—*a.* For suggested menus for liquid diets, amounts to be served omitted, see section II, chapter 5. Unless otherwise indicated average servings will be given as outlined in paragraph 9.

b. In addition to the three meals a day there should be a minimum of three extra feedings daily as follows:

At 10:00 AM, 3:00 PM, and 8:00 PM, an average serving of milk, eggnog, chocolate milk, malted milk, or grape juice should be given. It will not be unusual to feed the above menus at the regular meal hours in slightly smaller quantities and supplement with milk, eggnog, fruit juices, or other liquids every 2 hours between meals.

14. Tube feeding.—It frequently becomes necessary to force-feed patients by means of a stomach tube. This measure necessarily requires some form of concentrated liquids in order that the procedure will require repetition as infrequently as possible. The following tube diet formulas are suitable:

a. No. 1.

	Grams
Milk	1,000
Egg yolk	4
Evaporated milk	120
Karo syrup	200
Yeast. Two cakes dissolved in 200 cc hot water. Mix and cook in a double boiler. Cool, strain, and add tomato juice	120
Cod liver oil	16

b. No. 2.

	Grams
Milk	1,000
Egg yolk	4
Pastry cream, 40 percent	240
Karo syrup	100
Yeast. Two cakes dissolved in 200 cc hot water. Mix and cook in a double boiler. Cool, strain, and add orange juice	200
Cod liver oil	16

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

When tube feeding is not prolonged the following will be sufficient:

c. No. 3.

	Grams
Milk	1,000
Pastry cream, 40 percent	250
Glucose, 50 percent	250

Heat and use at body temperature.

d. No. 4.

	Grams
Malted milk	1,000
Pastry cream, 40 percent	250
Dextromaltose, 30 percent	300

Heat and use at body temperature.

When using tube diets care should be exercised to insure the administration of at least 2,000 calories daily to adults.

Section IV

SOFT, LIGHT, AND REGULAR DIETS

	Paragraph
Soft	15
Light	16
Regular (general or full)	17

15. Soft.—*a.* The soft diet is used in cases when it is desirable to eliminate or reduce mechanical irritation as much as possible. The distribution of the food elements is safe and the total caloric intake is ample for proper maintenance in health and disease. Because of the texture of these foods, patients tire of them quickly, and therefore should not remain on them any longer than necessary. The soft diet must be soft, readily digestible, and irritating indigestible residue small. Such a diet therefore is suitable for convalescent cases, some intestinal disorders, and certain stages of post-operative cases. In general, except where special diets are required, the soft diet bridges the gap between the liquid and regular diets, or liquid and light diets, or liquid and special diets.

b. Soft diets are constituted from the liquid diet plus—

Cooked cereals.
Toast.
Cream toast.
Soft-cooked eggs.
Purée of—
- Spinach.
- Peas.

Purée of—Con.
- Carrots.
- Asparagus.
- Lima beans.
- String beans.
- Summer squash.
- Baked white potatoes.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Mashed white potatoes.	Oysters.
Creamed white potatoes.	Broiled or baked white fish.
Cornstarch puddings.	Cottage cheese.
Cooked fresh fruits (except pineapple and berries).	Creamed sweetbreads.
	Plain cookies.
Minced white meat of chicken.	Soda crackers.
Scraped beef.	White bread.

c. For suggested menus for soft diet, see paragraph 181. Average servings are given unless requirements of the case indicate otherwise. A glass of milk or fruit juice may be given between meals and at 8:00 PM if the patient is hungry.

16. Light.—*a.* Light diet is a stepping stone filling the gap between the soft and full or regular diets. It is composed of easily digested foods and is low in indigestible residue. The total caloric intake is adequate and the supply of carbohydrate, protein, and fat is liberal.

b. Light diet is obtained from all liquid and soft diets plus—

Miscellaneous	*Vegetables*	*Desserts*
Rice.	Asparagus.	Fruits.
Macaroni.	Beets.	Puddings.
Spaghetti.	Carrots.	Plain cookies.
Noodles.	Eggplant.	Angel cake.
Meats.	Lettuce.	Sponge cake.
Fish.	Lima beans.	Gelatin desserts.
Oysters.	Peas.	Ice cream.
Clams.	White potatoes.	Ices.
Bacon.	Pumpkin.	
Chicken.	Spinach.	
Turkey.	Squash.	
Lamb chops.	String beans.	
Roast lamb.	Tomatoes.	
Tenderloin steak.	Cauliflower.	
Brains.	Parsnips.	
Sweetbreads.	Avoid cabbage, corn, onions, turnips, and rutabagas.	

c. Sample menus are given in section II, chapter 5.

17. Regular (general or full).—*a.* The general diet in hospital is very liberal. Ordinarily the regular diet of a hospital provides for about 2,500 calories per patient. The food in this diet is readily digestible. The articles selected for the menus insure proper antiketogenic-ketogenic ratio, adequate minerals, and vitamins A, B, C, D, E,

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

and G. The regular diet used fills the above requirements, except that it is considered "heavier," providing from 3,000 to 3,500 calories per person. It should be remembered that it is the regular diet that forms a basis for all the other diets. The construction of the regular diet menu is very important. In paragraph 170 is a table that is useful in making up the regular diet menus. In institutions where patients and personnel are subsisted from separate kitchens this form should be modified somewhat to fit better the needs of the regular diets for patients.

b. For suggested menus which may be modified easily to suit conditions, see section II, chapter 5.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

CHAPTER 3

THERAPEUTIC AND SPECIAL DIETS

		Paragraphs
SECTION I.	General	18
II.	Ulcer	19–23
III.	Retention	24–27
IV.	Anticonstipation	28–31
V.	High caloric	32–36
VI.	Low caloric (reducing) and high vitamin	37–38
VII.	Disease of colon	39–42
VIII.	Liver and gall bladder diseases	43–45
IX.	Pellagra preventive (P. P.)	46–49
X.	Ketogenic (K. P.)	50–53
XI.	Calcium	54–55
XII.	Cardiovascular-renal (C. V. R.)	56–58
XIII.	Diabetes mellitus	59–67
XIV.	Purin	68–69
XV.	Arthritis	70–71
XVI.	Pernicious anemia	72–80
XVII.	Alkaline and acid	81–83
XVIII.	Food allergy	84–89
XIX.	Tuberculosis	90–93
XX.	Surgery	94–99
XXI.	Children	100–103
XXII.	Chronic lead poisoning	104–105
XXIII.	Addison's disease	106–114

SECTION I

GENERAL

	Paragraph
Prescribing	18

18. Prescribing.—*a.* Great care should be exercised in prescribing therapeutic diets. Remember all these diets are designed for the disease or condition based on consistency, constituents, and caloric content of the items of food permitted in the diets. Constituents, consistency, and caloric content should always be foremost in mind when ordering a therapeutic diet, rather than ordering a diet named for some person. If the total caloric content is adequate, all the constituents present, and consistency changed as indicated to furnish not only normal requirements but increased or decreased in any of the above three essentials to fit the needs of the disease or condition

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

treated, the patient will then and only then receive the benefit of dietotherapy. Many therapeutic diets have to be continued indefinitely and many others over a long period of time. Examples are diabetic diets, diets for peptic ulcer, Addison's disease, etc. There are many conditions requiring therapeutic diets that should be returned to regular diet as soon as the need for a special diet has passed.

b. When therapeutic diets have been prescribed and it is necessary for their continuance after the patient leaves the hospital, the appropriate diet pamphlet should be furnished him.

c. It is believed that this manual contains sufficient therapeutic diets to cover the needs for most diseases treated without further modification. In the interest of efficiency in administration, ward officers as well as all other personnel concerned with dietary problems should familiarize themselves with this manual so that further modifications of these diets and entirely new ones may be prescribed as infrequently as possible.

SECTION II

ULCER

	Paragraph
General	19
Modified Sippy diet	20
Convalescent ulcer diet	21
Smithie method	22
Bland diet	23

19. General.—*a.* Gastric and duodenal ulcers that are to be managed by medical measures and those to be prepared for surgery by a period of dietary management should follow a well-outlined plan. In general, nonsurgical cases may be benefited by a combination of accepted remedial measures. They are listed in the order of their importance:

(1) Rigidly enforced diet.
(2) Absolute mental rest.
(3) Absolute physical rest.
(4) Medicines.

b. There are many diets used in the treatment of gastric and duodenal ulcers. Practically all of them employ milk and cream in the beginning, and by stages soft-cooked eggs, cereal gruel, custards, and vegetable purées are added. It is difficult to say that one of these diets is superior to another. It is a fact that some are administered with greater ease than others. Since an important factor in all these

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

diets is the manner of regularity of the feedings, it is to be expected that a diet that permits proper execution will be selected.

c. It must be remembered that a single diet will not be satisfactory in all cases. It is therefore necessary to have other nonsurgical measures available.

d. It is believed that most cases not requiring surgery will respond to a modified Sippy diet. The few cases not responding should then be tried on Smithie's nonsurgical management. If both these diets have been given honest trials, it will be well worthwhile to recheck by X-ray, for in most instances it will be found they were really surgical cases in the beginning. One cannot expect proper response on any diet unless the cases have been properly diagnosed and classified. The modified Sippy diet outlined below should be continued until something is proven superior.

e. The modified Sippy, convalescent, and post-hospitalization ulcer diets are all deficient in some vitamins, especially B and C. It is advisable to supplement them with orange juice, yeast, and cod liver oil. It is not uncommon to find that orange juice is not well tolerated for the first few days after an acute exacerbation. In such cases orange juice should be omitted for a few days and then tried again. Tobacco should be prohibited indefinitely.

f. Convalescent ulcer diet should be continued indefinitely after hospitalization. Peptic ulcer is a systemic disease and all the principles embraced in its management must be continued indefinitely if success in treatment is obtained. Salt, spices, pepper, or other condiments must not be used. Postum is permitted in the convalescent ulcer diet but coffee and tea should be avoided. At the end of the third week of the modified Sippy diet, the patient should be put on the convalescent ulcer diet. During the first 3 weeks of treatment Sippy powders should be used every hour midway between feedings, and after the patient is on the convalescent ulcer diet the A powders should be taken ½ hour before meals and B powders ½ hour after meals. These powders may be alternated as required for correction of constipation or diarrhea.

20. Modified Sippy diet.—*a. Powders.*—Sippy powders are made as follows:

(1) *A powder.*
Calcined magnesia, 10 grains.
Sodium bicarbonate, 10 grains.

(2) *B powder.*
Calcium carbonate, 10 grains.
Sodium bicarbonate, 30 grains.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Outline.

1st to 7th day	Cream and milk (half and half, 3 ounces every hour).
7:00 AM to 9:00 PM	Powders as directed. 60 cc orange juice three times a day if tolerated. Fish liver oil concentrate and yeast tablets daily.
7th to 14th day. 7:00 AM to 9:00 PM	Cream and milk every hour from 7:00 AM to 9:00 PM, except 7:00 AM and 5:00 PM. Cooked cereal, 6 ounces at 7:00 AM. Custard or junket, 4 ounces. Powders as directed. 60 cc orange juice three times a day if tolerated. Navitol or substitute and yeast tablets daily.
14th to 21st day 7:00 AM to 9:00 PM	Cream and milk every hour from 7:00 AM to 9:00 PM, except 7:00 AM, 11:00 AM, and 5:00 PM (see menu below). 60 cc orange juice three times daily if tolerated. Fish liver oil concentrate and yeast tablets daily.

Breakfast, 7:00 AM	*Dinner, 11:00 AM*	*Supper, 5:00 PM*
Cereal, 6 ounces.	Creamed soup, 6 ounces.	Apple sauce or junket, 4 ounces.
One soft-boiled or poached egg.	Custard junket or apple sauce, 4 ounces.	Creamed rice, 6 ounces.
		One teaspoonful sugar.
		Cream, 2 ounces.

21. Convalescent ulcer diet.—Written instructions should be provided all ulcer cases when discharged from the hospital. This is known as the convalescent or post-hospitalization ulcer diet. A pamphlet is furnished the patient on discharge (see sec. II, ch. 4).

a. Food selection.—Construct menus from the following:

Food	Permitted	Avoid
Beverages	Chocolate every second day, chocolate malted milk, cocoa, cream and hot water, eggnog, milk, milk with cream, half and half, or with raw egg, milk shake, postum.	Acid drinks, alcohol, any drink too hot or too cold, coffee, fruit drinks except sweet orange juice, tea.
Bread	Toast, well done from stale white or graham bread, zwieback.	Bran breads, fresh bread, hot biscuits; muffins.
Butter	Moderate amount. Salt-free preferable.	

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

a. Food selection—Continued.

Food	Permitted	Avoid
Cereal	Cream of wheat, Farina, Oatmeal (cook in double-boiler at least 1 hour, oatmeal 2 hours). Corn flakes, puffed rice, rice krispies. Limit sugar to 1 teaspoonful.	All bran cereals, corn meal mush.
Cheese	Cottage cheese, fresh; cream cheese.	All others.
Dessert	Blanc mange, bread pudding, custards, gelatin (plain), ice cream, rice pudding, sponge pudding.	Desserts containing acid, all pastries, rich puddings.
Eggs	Baked, boiled (soft), coddled, creamed, soufflé, poached.	Fried; omelets.
Meat, fish, and fowl.	Instructions regarding these usually state they should be avoided for the first 3 months, except two scraped beef balls alternating with a meat jelly once a day, and twice weekly, two slices of crisp bacon. After 4 months and for a period of 10 months a small serving of white meat of chicken, creamed or baked, or broiled tender lamb chops or tenderloin, or baked or stewed young fowl or local fresh river or brook fish, boiled or baked, are permitted. It is believed, however, that meats should be avoided for 1 year after discharge from hospital after which time the above regime may be instituted. If symptoms return, these meat dishes should again be dropped from the menu.	Any fish except as listed in the permitted classification.
Fruit	Apple sauce (strained), baked apple without seed and skins, baked bananas, baked or stewed peaches or pears, stewed prune purée.	All uncooked fruits containing a large amount of acid and those to which much sugar has been added.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

a. Food selection—Continued.

Food	Permitted	Avoid
Nuts		All.
Salad and salad dressing.	Mayonnaise occasionally after 3 months.	All others.
Salt and condiments.	Very sparingly	All others.
Soup	Cream of vegetable and purées only.	Bouillon, beef broths and meat soups.
Sweets		All candy, jams, sundaes, etc.
Vegetables	Asparagus (fresh tender). Beans. Rutabagas. Carrots. Spinach. Peas. Turnips. These must be well cooked and fiber removed and strained. Potatoes, plain boiled, creamed, mashed, riced. Steamed rice is permitted.	All raw or coarse vegetables. Tomatoes should be avoided for at least 1 year.

b. Sample menus.—For sample menus, see paragraph 182.

c. Midmeal nourishment.—10:00 AM, 3:00 PM, and 9:00 PM, glass of milk or malted milk.

22. Smithie method.—This is the nonsurgical management of peptic ulcer by physiological rest and diet, modified after the method of Smithie. This method of treatment is very helpful in some cases that do not respond to other methods. Hemorrhage will cease in most bleeding ulcers and at the conclusion of 2 days on hemorrhage treatment a point has been reached when a decision has to be made on the form of medical management used. If hemorrhage has ceased and the patient shows improvement by this time the usual Sippy management will suffice. If there is continuation of hemorrhage either massive or slow, better results are usually obtained by the use of the Smithie's nonsurgical management if it has already been decided that surgery is not to be instituted. Response may be expected by this treatment in a few cases when there are no apparent reasons for surgery and after all other methods of management have failed. The objections to its use are all connected with its administration and because of this, a switch back to the Sippy management is frequently made after the condition of the patient justifies it.

a. Days, 1 to 7.—(1) *By mouth.*—(*a*) Give 15 cc of warm water every 2 hours when awake. Follow this each time by chewing paraffin wax 15 minutes.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(*b*) Orange juice, 60 cc at 9:00 AM, 2:00 PM, and 7:00 PM.

(2) *By rectum.*—(*a*) Nutrient enema at 8:00 AM, 12:00 noon, 4:00 PM, and 8:00 PM. Enema will consist of alcohol, 50 percent, 30 cc; glucose syrup, 30 cc; normal saline, 180 cc.

(*b*) These enemas will be preceded by a cleansing enema of normal saline solution. The nutrient enema will follow by the drip method at the rate of 30 to 60 drops per minute. If there is pain or spasm 10 drops of tincture of opium may be added to the nutrient enema the first 2 days.

(3) *General.*—If there is much epigastric soreness, hot compresses should be applied constantly to the abdomen with the following solution:

Alcohol, 50 percent, 500 cc.
Saturated solution boric acid, 1,000 cc.

b. Days, 7 to 14.—(1) *By mouth.*—(*a*) Chew paraffin wax 15 minutes before each oral feeding.

(*b*) Give feedings of 180 cc at 7:00 AM, 11:00 AM, 3:00 PM, and 7:00 PM. Feedings to consist of gruel at a temperature 180° F., taken slowly through a glass tube. Gruel is made into an emulsion by the addition of a small amount of arrowroot or cornstarch and flavored with coffee, vanilla, or chocolate. Make gruels from any of the following:

Rice.	Sago.
Cream of wheat.	Peas.
Oatmeal.	Cauliflower.

(*c*) Sixty cc warm water or orange juice at 9:00 AM, 1:00 PM, and 5:00 PM.

(2) *By rectum.*—(*a*) *First and second days.*—Nutrient enema 9:00 AM, and 5:00 PM.

(*b*) *Third and fourth days.*—Nutrient enema at 8:00 AM.

(*c*) *Fifth, sixth, and seventh days.*—No rectal feedings in average cases.

c. Days, 14 to 21.

5:00 AM. A glass of hot water and one teaspoonful noneffervescent sodium phosphate.

6:00 AM. Sweet orange or grapefruit juice, 30 cc.
Thin cream of wheat, farina, or well-cooked rice, 60 cc.
Hot milk, 60 cc.
One zweiback with a thin layer of butter.
Parboiled skimmed milk, 60 cc, containing 60 cc of lime water, flavored with vanilla, chocolate, or coffee, 120 cc.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

9:00 AM. Thin water gruel from cereals, or fresh vegetables, strained, served hot, 180 cc.
One zweiback.
11:00 AM. Vegetable purée, 180 cc (from asparagus, beans, peas, or potatoes).
Salisbury steak, 4 ounces (moderately cooked). To chew only.
Pudding, 2 ounces (from rice, sago, tapioca, or cornstarch, using parboiled milk and egg yolk).
Parboiled milk, 150 cc, lime water, 30 cc to 180 cc.
2:00 PM. Malted milk or whipped egg with parboiled milk, or cornstarch pudding, or simple custard, 120 cc.
4:00 PM. Water gruel from cereal, 120 cc.
One egg, soft poached or boiled.
Milk, hot, 120 cc.
Zweiback, one.
6:00 PM. Hot milk, 120 cc.
Zweiback, two.
9:00 PM. Cereal gruel, 180 cc.
Graham crackers, two.

d. Days, 21 to 42.

5:00 AM. Two teaspoonsful noneffervescent sodium phosphate in a glass of warm water.
6:00 AM. Juice from one sweet orange.
Thin cereal, 60 cc, with 60 cc skimmed milk.
One soft poached or boiled egg.
Zweiback, two, or—
Graham bread, two slices, well toasted.
Hot skimmed milk (¼ of which is lime water), 240 cc.
9:00 AM. Parboiled milk (¼ of which is lime water), 240 cc.
Graham crackers, two.
11:00 AM. Strained vegetable soup, 120 cc.
Rare steak to chew, 4 to 6 ounces.
Well-mashed potato, baked potato, carrot, beans, peas, or cauliflower strained, and 15 grams of butter added, 120 cc.
Pudding of rice, sago, or cornstarch, or cream of wheat, custard or prune whip, 120 cc.
Skimmed milk, 240 cc.
2:00 PM. Hot milk, malted milk, or weak cocoa, 240 cc.
Lime water, 60 cc.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

4:00 PM. Zweiback, two, or—
Graham bread, toasted, two slices.
Two eggs, soft-poached.
Apple sauce, baked apple, or sweet orange juice, 100 cc.
Hot milk, 240 cc.
9:00 PM. Hot milk, malted milk, or weak cocoa, 240 cc.
Lime water, 60 cc.

e. After finishing the above diet, if not relieved the patient should go back to the 7- to 21-day diet. If symptom-free, the general diet below should be strictly followed for 3 months.

6:00 AM. Toast without butter, two slices.
Juice of an orange, apple sauce, or baked apple.
One dish cooked cereal.
Two soft-poached eggs.
9:00 AM. Whole milk, to which has been added 45 cc cream, 240 cc.
11:00 AM. To be heavy meal of the day. May have average serving with choice of one meat, vegetable, and dessert of the following:

Meat	*Vegetable*	*Dessert*
White meat of fowl.	Spinach.	Simple puddings.
Rare beef.	String beans.	Gelatin.
Rare hamburger.	Brussels sprouts.	Simple cakes.
Lamb chops.	Baked or mashed potato.	Well-cooked fruit purées.

Graham bread.
Hot skimmed milk, 240 cc.
2:00 PM. Bouillon, one cup.
Graham crackers, two.
4:00 PM. Light meal.

Vegetable soup.	Soft-cooked eggs.
Simple salad.	Plain pudding or cake.
Toast.	Hot skimmed milk, 240 cc.

9:00 PM. Hot skimmed milk, 240 cc.

It is often satisfactory to put the patient on the convalescent ulcer diet after finishing the 42-day Smithie diet.

23. Bland diet.—*a. General.*—(1) This diet is used in many gastro-intestinal conditions. It is also useful in certain stages of recovery from many diseases. The fruits and vegetables should always be well cooked and those used should contain only a small amount of indigestible residue. This diet is not a substitute for ulcer diets at

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

any stage of the treatment of ulcer. It should be remembered that the diet must be kept bland. Avoid all fried, greasy, highly spiced, and seasoned foods. Mustard, pepper, vinegar, ketchup, horseradish, and relishes are not permitted. Canned, smoked, and preserved meats and fish must not be used. Pork and all raw vegetables and fruits, pastries, preserves, and candies have no place in this diet. Alcohol in all forms, carbonated waters, tea, and coffee must also be avoided, and do not use bran in any form.

(2) If diet is to be continued after hospitalization a diet pamphlet outlining the diet should be furnished the patient.

b. Food selection.

Food	Permitted	Avoid
Bread	White bread if not too fresh, toast, hard rolls, white crackers, spaghetti, macaroni, and noodles.	All others including those containing bran.
Cereal	All well-cooked cereals and the ready-cooked ones, except those containing bran.	All cereal preparations containing bran.
Cheese	Cream and cottage	All others.
Dessert	Plain puddings of rice, tapioca, bread, cornstarch, and gelatin, sponge cake, plain cookies, junket, and ice cream.	All others, including those containing nuts, dates, coconut, and raisins.
Drinks	Milk, malted milk, orange juice, and postum.	All others.
Eggs	Boiled, poached, or scrambled.	Fried, and in any form if cooked with fat.
Fruit	Cooked pears, prunes, peaches, plums, apple sauce, and apricots. Use the juice of at least 1 orange daily.	All uncooked fruits and all fruits with seeds and heavy skins.
Meat	Veal steak, lamb chop, and steak if broiled, roast beef, broiled or roast chicken, plain sweetbreads, baked or broiled fish, and crisp bacon.	All others.
Milk and butter	At least a pint of milk daily. Butter and cream may be taken as desired.	
Soup	Cream soup and meat broth	All others.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection—Continued.

Food	Permitted	Avoid
Vegetables	Potatoes, peas, asparagus tips, spinach, squash, beets, and carrots. All must be well cooked. May have very finely chopped lettuce.	All vegetables containing much indigestible residue, cabbage, onions, turnips, cauliflower, and parsnips, and also all uncooked vegetables except very finely chopped lettuce.

c. Sample menus.—See paragraph 194.

SECTION III

RETENTION

Paragraph
Requirements 24
Foods suitable 25
Use 26
Types of diet 27

24. Requirements.—*a.* Foods constituting a retention diet should be of such consistency that they can be aspirated if necessary. Milk, especially boiled milk, and cream are likely to form large curds unless diluted with other materials such as malted milk, chocolate, or egg white.

b. The protein needs will be sufficient if eggs and milk, or its products, are used adequately.

c. The total caloric intake will be variable, depending on ability of patient to retain the food ingested, and amount, type, and concentration of food given. If a high caloric diet is desired pastry cream, 40 percent, and lactose may be added to the feedings frequently enough to bring the total caloric intake to the desired amount.

d. The nurse should prepare these diets and exercise care in amounts served. The amount consumed at each serving should be charted. Foods should be served at hours specified, and effort made to serve the food in an attractive manner. The patient's preference should be followed when it does not conflict with the diet order. Hot food should be served very hot, and cold food very cold. Retention diets furnish very little residue and constipation is the rule. No attempt should be made to correct this by dietary measures. Feedings should be limited to 200 cc each and repeated every 2 hours during the day. Most patients requiring retention diets are dehydrated and poorly nourished, having lost their appetites and considerable weight. If it

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

becomes necessary to continue a retention diet over a prolonged period, orange juice, fish liver oil concentrates and two cakes of yeast dissolved in hot water should be given daily.

25. Foods suitable.—The following foods are suitable for retention diets when properly prepared:

Strained, cooked cereals with cream and sugar.
Postum with cream and sugar.
Cocoa when made with half milk and half 20-percent cream.
Malted milk when made with half milk and half 20-percent cream.
Chocolate milk when made with half milk and half 20-percent cream.
Eggnog when made with half milk and half 20-percent cream.
Plain ice cream.
Plain gelatin dessert with 20-percent cream.
Junket with 20-percent cream.
Strained cream soups.

26. Use.—Retention diets are useful in many gastro-intestinal diseases, especially those presenting evidence of partial functional or organic obstruction anywhere in the gastro-intestinal tract. These diets are most often used where there is partial obstruction in the duodenum and pyloric end of the stomach.

27. Types of diet.—The following retention diets* are satisfactory for ordinary purposes:

a. No. 1.

Time	Food	Amount				Calories (approximate)
		CC	*C*	*P*	*F*	
6:00 AM	Postum with cream	200	2	1	6	66
8:00 AM	Gruel with cream and sugar	200	21	4	21	289
10:00 AM	Gelatin with cream	200	15	6	20	264
12:00 M	Cream soup	200	11	6	24	284
2:00 PM	Malted milk	200	15	7	24	305
4:00 PM	Cocoa	200	16	7	28	340
6:00 PM	Gruel, cream and sugar	200	21	4	21	289
8:00 PM	Eggnog	200	15	12	30	387
	Total	1, 600	116	47	174	2, 215

*Courtesy of Department of Nutrition, St. Mary's Hospital, Rochester, Minn.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. No. 2.

Time	Food	Amount				Calories (approximate)
		CC	*C*	*P*	*F*	
6:00 AM	Cocoa	200	16	7	28	340
8:00 AM	Gruel, cream and sugar	200	21	4	21	289
10:00 AM	Malted milk	200	15	7	24	305
12:00 M	Cream soup	200	11	6	24	284
2:00 PM	Postum and cream	200	2	1	6	66
4:00 PM	Eggnog	200	15	12	30	378
6:00 PM	Gruel, cream and sugar	200	21	4	21	289
8:00 PM	Junket	200	15	6	8	156
	Total	1, 600	116	47	162	2, 107

c. No. 3.

Time	Food	Amount				Calories (approximate)
		CC	*C*	*P*	*F*	
6:00 AM	Hot chocolate	200	21	8	28	365
8:00 AM	Gruel, cream and sugar	200	21	4	21	289
10:00 AM	Cocoa	200	16	7	28	340
12:00 M	Cream soup	200	11	6	24	284
2:00 PM	Junket	200	15	6	8	156
4:00 PM	Postum with cream	200	2	1	6	66
6:00 PM	Gruel, cream and sugar	200	21	4	21	289
8:00 PM	Gelatin with cream	200	15	6	20	264
	Total	1, 600	122	42	156	2, 053

SECTION IV

ANTICONSTIPATION

Paragraph
General 28
Anticonstipation (A. C.) diet 29
Irritable colon (A. C. I. C.) diet 30
High fat, low residue diet 31

28. General.—*a.* Anticonstipation diets are intended for use in correction of constipation that is caused by many factors. They should be used in their proper places after the cause of constipation has been determined.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Habit becomes a factor in constipation even though some organic lesion is present, and may be corrected by the proper diet after the organic lesion has been removed. It is therefore important to determine definitely the cause of the constipation first and to correct removable etiological factors after which a proper diet, medication, and hygienic living should give relief. Some anticonstipation diets will call for a large amount of cellulose or indigestible residue. The total protein intake is not changed. If the patient is under weight, it is necessary to prescribe another type of anticonstipation diet. Such a diet would contain less cellulose, a large amount of fat, with no change in carbohydrate and protein intake. The total caloric intake would be increased about 50 percent. Diets containing a large amount of indigestible residue would not be prescribed when the constipation is due to an irritable colon.

29. Anticonstipation (A. C.) diet.—*a. General.*—This type of diet is used when no cause for the constipation can be found. It is high in cellulose content with no change in total caloric and protein intake. The diet for the first 1, 2, or 3 months should consist chiefly of cooked fruits, cooked vegetables, coarse breads, and coarse cereals. Raw fruits, and raw vegetables may be added gradually after 2 or 3 months. If this diet becomes objectionable the amount of fruits and vegetables may be decreased gradually as the constipation is relieved. Otherwise, it should be continued until there is proper response. Continuation of this diet will be required after hospitalization and the appropriate diet pamphlet should be furnished when discharged.

b. Food selection.

Food	Permitted	Avoid
Beverage	Fruit juice, postum, coffee, tea, milk, buttermilk.	
Bread	Graham, bran, rye, whole wheat, raisin, nut bread or muffins.	Cornbread, white breads, and crackers.
Butter and olive oil.	As much as desired; the more eaten the better unless the patient is inclined to be obese.	
Cereals	Oatmeal, pettijohn, bran breakfast foods, any of the coarse cereals. Cream and sugar with all cereals.	Cream of wheat, farina, and grapenuts.
Cheese	Fresh creamed cottage cheese	All others.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection—Continued.

Food	Permitted	Avoid
Desserts	Gelatin desserts, sherbets, ices, ice cream, and all kinds of fruit desserts. Desserts may be served with whipped cream.	All custards, pies, and puddings containing a large amount of crackers, bread, and eggs.
Eggs	One or two soft-boiled eggs daily.	Eggs in large quantities.
Fruit	Stewed, all kinds, especially prunes, figs, apples. Raw, especially figs, dates, plums, apples, prunes, oranges, peaches, berries, pears, and grapes.	Bananas.
Meat	Crisp bacon, lamb chops, steaks, chops, chicken, or fish; moderate servings.	
Nuts	A few (any kind), daily.	
Salads	All kinds of fruit and vegetable.	Chicken, lobster, fish, cheese, egg, and meat.
Salad dressing	Any kind and in as large quantities as desired.	Highly seasoned salads or dressings.
Soups	Vegetable, vegetable bouillon, purées, and cream soups.	Meat soups and meat bouillon.
Vegetables	All kinds and in as large quantities as desired. Those generally used are carrots, turnips, rutabagas, parsnips, beets, spinach, dandelion greens, string beans, green peas, eggplant, celery, lettuce, cucumbers, radishes, tomatoes and cabbage.	
Water	Drink three glasses before breakfast, between meals, and before retiring.	

c. Sample menus.—See paragraph 186.

30. Irritable colon (A. C. I. C.) diet.—*a. General.*—(1) This diet is for the purpose of correcting constipation observed in the irritable colon. It is also useful in cases of simple colitis. If there is marked irritability or the colitis is severe, omit—

(*a*) Meat, fish, and chicken.
(*b*) Cream cheese.
(*c*) Apple sauce.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(*d*) Plain cakes.
(*e*) Potatoes.
(*f*) Rice, spaghetti, noodles, etc.

(2) As soon as the acute stage has subsided, these items should be added to the diet. For the general case, the diet in *b* below will be found satisfactory. Avoid raw vegetables and fruits at all times. Highly seasoned foods should never be taken. A moderate amount of salt may be used. It should be remembered that fruits and vegetables containing a large amount of roughage are also irritating and must be avoided. Foods that contain considerable cellulose will be well tolerated if properly cooked and puréed. By this process most of the irritating particles are eliminated. Avoid all fried foods, vinegar, and highly seasoned food. The appropriate diet pamphlet outlining this diet should be furnished the patient on discharge from the hospital.

b. Food selection.

Food	Permitted	Avoid
Beverages	Orange juice, postum, coffee, tea, milk, buttermilk, chocolate, cocoa.	All others.
Bread	Toasted white bread, white bread, hot biscuits (crusts only).	Muffins, graham or whole wheat, rice, and all others containing bran.
Butter and olive oil.	Moderate amount.	
Cereal	Farina, food of wheat, cream of wheat, sieved oatmeal, or rolled oats.	Shredded wheat biscuits, bran flakes, or any other cereals containing a large amount of bran.
Cheese	Fresh cream cottage cheese	All others.
Dessert	Simple puddings custards, ice cream, gelatin, plain cake, and stewed fruits that have been sieved. Sugar is permitted but not too much. Stewed berries may be used by thickening the juice with cornstarch.	Cheese, nuts, raisins, jams, jellies, candies, raw fruits, and sugar in concentrated form.
Eggs	Soft-boiled, poached, coddled, or scrambled. Moderate quantities.	
Fruit	Stewed fruits that have been sieved.	Cantaloupes, melons, and bananas.
Meat	Moderate servings of meat, fish, oysters, chicken, or squab permitted (cook simply).	Fibrous particles of all meats, all smoked fish, canned fish, and pork.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection—Continued.

Food	Permitted	Avoid
Nuts	None	All.
Salad	None	All.
Soup	Broths, bouillon, cream soups, and chowder.	Those containing large particles of coarse vegetables and fibrous particles of meats.
Vegetables	Potatoes, rice, sweet potatoes, hominy, spaghetti, macaroni, noodles, Italian pastes, tender asparagus tips, purée of peas, lentils, lima beans, and artichoke hearts.	Spinach and older string beans.

c. Sample menus.

Breakfast	Dinner	Supper
Orange juice.	Cream of pea soup.	Scraped beef balls.
Food of wheat.	Roast beef.	Boiled rice.
Coddled eggs.	Baked potato.	Sieved peas.
Bacon.	Asparagus tips.	White bread, butter.
Toasted white bread, butter.	White bread, butter.	Ice cream.
	Gelatin dessert.	
Coffee.	Milk.	Milk.
	Tea or coffee.	Tea or coffee.
Orange juice.	Cream of potato soup.	Cream of celery soup.
Farina.	Creamed chicken.	Roast lamb.
Soft scrambled eggs.	Rice.	Mashed potato.
Bacon.	Purée of peas.	Purée of lima beans.
Toasted white bread, butter.	Toasted white bread, butter.	White bread, butter.
Coffee.	Boiled custard.	Milk.
	Milk.	Prune whip.
	Tea or coffee.	Tea or coffee.

31. High fat, low residue diet.—*a. General.*—Many patients suffering from chronic constipation due to an irritable colon are underweight. It is necessary to keep down to the minimum the amount of indigestible residue. There should be no marked change in protein intake. The carbohydrates are reduced somewhat below that in the diet for the irritable colon. Fats in the form of cream, butter, oils, and mayonnaise should be increased 250 to 300 grams daily. In other

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

respects these two diets are identical. This diet properly constructed will contain 2,800 to 3,500 calories. Since there is some reduction in the total carbohydrate intake and a marked increase of ingested fats, the antiketogenic-ketogenic ratio should be checked by the ward officer to assure himself the ratio is a safe one to use. In prescribing the diet the total caloric intake and the number of grams of carbohydrates desired should be stated.

b. Food selection.—Identical with that in paragraph 30*b*, except butter and olive oil which are used freely.

c. Sample menus.—The meals and servings should be arranged as follows:

Breakfast	Dinner	Supper
Orange juice, 1 glass.	Cream of pea soup, 1 serving.	Cream of celery soup.
Food of wheat.	Roast beef, 1 serving.	Scraped beef balls, two.
Coddled eggs, 2.	Baked potato, 1 serving.	Boiled rice, 1 serving.
Bacon, two slices.	Asparagus tips, 1 serving.	Sieved peas, 1 serving.
Toasted white bread, 1 slice.	White bread, 1 slice.	White bread, 1 slice.
Butter, use freely.	Gelatin, 1 serving.	Ice cream, 1 serving.
Cream (table), 30 cc.	Milk, 1 glass.	Butter, use freely.
Coffee, 1 cup.	Cream, 30 cc.	Milk, 1 glass.
	Butter, use freely.	Cream, 30 cc.
	Tea or coffee, 1 cup.	Tea or coffee, 1 cup.

SECTION V

HIGH CALORIC

Paragraph
General 32
Standard high caloric diet 33
Liquid high caloric diet 34
Soft high caloric diet 35
Regular high caloric diet 36

32. General.—High caloric diets are used for many purposes. The energy content of the food must be increased 30 percent to 100 percent, depending upon the disease, above that contained in the regular or full diet. This increase may be effected in several ways. The regular diet may be eaten in larger portions. Concentrated foods such as butter, cheese, candy, mayonnaise, jellies, jams, honey, syrup, etc., may be added to the regular diet or the number of meals eaten daily may be increased. The high caloric diet must be further modi-

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

fied to suit the requirements of the disease for which it is prescribed. A high caloric diet prescribed for typhoid fever is unlike in consistency one for underweight. Either of these diets would probably differ from a high caloric diet for an advanced stage of malnutrition. The protein content in this diet is increased about 10 percent to 15 percent in wasting diseases and active infections. The remainder of the high caloric content is made up of carbohydrates and fats. Carbohydrates will increase weight rather quickly as well as furnish immediate energy. In some diseases where intestinal fermentation is a factor, carbohydrates may have to be reduced and a large part of the increased caloric intake made up from fats. Here again, it is important that the antiketogenic-ketogenic ratio be checked, and the diet ordered by stating the total calories and the number of grams of carbohydrate desired in the diet.

33. Standard high caloric diet.—*a.* When the high caloric diet is prescribed without qualification the regular diet will be used plus the following in sufficient amount to increase the total caloric intake about 30 percent. This increase should be in carbohydrates and fats, principally, and each one increased approximately the same number of grams.

b. To obtain a high caloric diet add to the regular diet one or more of the following at each meal and between meals:

Breakfast	Dinner	Supper
Jams.	Extra cream.	Sweetened fruit juices.
Jellies.	Ice cream.	Extra cream.
Honey.	Lactose.	Rich puddings.
Syrup.	Custards.	Rich custards.
Extra cream.		Ice cream.
Sweetened fruit juices.	3:00 PM. Malted milk.	Glucose.
9:30 AM. Malted milk.		9:00 PM. Milk and cream, half and half.

c. The above diet is known as the standard high caloric diet. If there is no desire to change the consistency but a higher caloric intake is desired, state the calories wanted, for example, high caloric diet, calories 3,500, CHO, 250 grams. Such an expression calls for the regular diet plus enough of the above concentrated foods to make the 3,500 calories. The carbohydrates are limited to 250 grams; therefore the fats must be increased sufficiently to make up the balance.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

34. Liquid high caloric diet.—*a. Use.*—(1) This diet is used initially in some intestinal diseases such as typhoid fever and certain infections. The same may be said of this form of liquid diet as any other liquid diet, which is to remove patient from it as soon as it is safe. The logical stages a patient passes through when put on the high caloric liquid diet are—

(*a*) Liquid.
(*b*) Soft.
(*c*) Regular.

(2) In some acute infections and intestinal diseases of short duration it is safe to proceed from high caloric liquid to a regular diet.

b. Sample menus.—The following sample menus indicate construction and administration of the high caloric liquid diet. It will be noted that the usual liquid diet has been supplemented by other concentrated liquids.

Breakfast	Dinner	Supper
Strained orange juice. Milk and cream (half and half). Lactose, 15 grams. Kaffee hag or sanka. 9:00 AM. Malted milk. Lactose, 15 grams.	11:00 AM: Milk and cream (half and half). Lactose, 15 grams. Cream pea soup (strained). Boiled egg custard. 1:00 PM. Eggnog. 3:00 PM. Cocoa milk. Lactose, 15 grams.	5:00 PM: Cream potato soup (strained). Milk and cream (half and half). Lactose, 15 grams. Plain ice cream. 7:00 PM. Malted milk. 9:00 PM. Eggnog.

c. Modification.—Such a high caloric diet as the above will not fit all cases. It must be modified to suit the particular need. Items not permitted in a certain disease must be mentioned as forbidden articles when prescribing the diet. From the list below may be obtained articles suitable for variety to fit any need when combined with the usual liquid diet:

All strained cream soups.
Plain ice cream and ices.
Gelatin.
Fruit juices.
Carbonated drinks.
Cocoa and malted milk.
Whipped cream.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

35. Soft high caloric diet.—*a. Constituents.*—This diet contains the articles in the high caloric liquid diet plus the usual soft diet, except that all meats, cakes, and cookies should be omitted in those suffering from enteric diseases.

b. Sample menus.

Breakfast	Dinner	Supper
Puréed fruit.	Strained soup, crackers.	Strained soup.
Cream of wheat.	Roast chicken.	Scalloped sweetbreads.
Eggs.	Mashed potato.	Puréed buttered peas.
Crisp bacon.	Puréed carrots.	Mashed sweet potato.
Toast, butter.	Toast, butter.	Toast, butter.
Milk and cream.	Milk and cream.	Apple sauce with whipped cream.
	Ice cream.	
10:00 AM. Orange juice.		Milk and cream.
	3:00 PM. Tomato juice.	Custard.
		9:00 PM. Eggnog.

36. Regular high caloric diet.—*a. Constituents.*—Without further qualifications, this diet can be the regular house diet plus jams, jellies, honey, syrup, lactose, sweetened fruit juices, custards, extra cream, etc., sufficient to make an additional 30 percent total caloric increase above that in the normal diet. There are no items to be avoided, except that it is wise not to include too many items with high indigestible residue for their inclusion causes the patient to feel full and will not eat enough to make it a high caloric diet.

b. Sample menus.—See paragraph 183.

SECTION VI

LOW CALORIC (REDUCING) AND HIGH VITAMIN

	Paragraph
Low caloric (reducing) diet	37
High vitamin diet	38

37. Low caloric reducing diet.—*a. General.*—(1) The low caloric diet is synonymous with reducing diet. No one should be placed on such a diet unless a careful physical check has been made and it has been determined that it is safe to follow a reducing regime. There are several types of obesity. Some types respond to diet alone while others require diet and medicine. No one should be permitted to lose more than 3 pounds per week. Every patient on this diet should be rechecked once a week. Reducing diets are dangerous if the

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

patient is not under proper control. Many factors enter into the requirements of this diet. No one reducing diet can be written that will insure reduction of weight in all those overweight. Some are "easy keepers" and will gain weight on some reducing diets. Every case is a law unto itself and should be so treated. Practically all reducing diets will at first be under the patient's basal requirements in total caloric content, but just how far below no one can determine. It is much better to estimate too high and lower it later than to start out too low. It must be remembered that weight-reducing diets involve marked reductions in carbohydrates and fats. Therefore, minerals (especially calcium) and vitamins must be maintained.

(2) Too often, it is the custom of some who treat the obese to prepare three or four reducing diets ranging from about 800 to 1,400 calories and have them printed and ready for use. A general estimate of the patient's needs are made and the diet believed to be the suitable one is given for a trial. If this does not work the next lower one in calories is substituted until there is a loss of weight or until the lowest caloric diet has been tried. If the patient does not lose weight on any of them there is too often the desire to discharge the patient for failure to cooperate in the treatment. It is admitted that all patients do not cooperate but the largest number of failures to obtain the reduction desired are due to failure to construct a diet suited to the individual treated and ignorance of the patient in trying to estimate quantities of food permitted.

(3) Most overweight and obese persons have a real desire to reduce. When treated, they should be required to procure dietetic scales and taught to use them until proficient in estimating portions allowed. By this time much of the reduction, if not all, has been accomplished and it may then be safe to trust them with estimated servings.

(4) Most of those who do not cooperate, fail to do so because of hunger. This can be avoided in nearly all cases by providing the maximum bulk in the diet. This can be done by limiting vegetables and fruits to those with low carbohydrate content. Midmeal feedings of items of low caloric content also help in relieving hunger.

b. Construction.—(1) Low caloric diets are based upon the following general principles:

(*a*) Determine proper weight for patient based upon height, sex, and age.

(*b*) Determine activity of patient or other factors requiring energy and also appetite, whether a big eater, "easy keeper," etc.

(*c*) Determine basal requirement of the patient. Total calories

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

should be reduced 10 percent below basal requirements for a beginning.

(*d*) Give 1 gram protein per kilo of body weight. Subtract the caloric value of proteins from total calories allowed, and the remainder to be made up of carbohydrates and fats. This carbohydrate content is very important to combust properly the body fat it is anticipated the patient will lose. Fat is present to some extent in many items used in the reducing diets but ordinarily is not added as such, except about 10 grams of butter two to three times a day.

(*e*) Select lean meats, poultry, and fish for protein supply, and mostly 5-percent and 10-percent vegetables for the carbohydrate needs.

(*f*) If diet is deficient in calcium and vitamins give halibut oil, yeast, and calcium phosphate.

(*g*) Permit at least one egg and ½ pint of milk or skimmed milk daily.

(2) After a thorough physical examination, and keeping the above principles in mind, it is easy to determine a suitable diet. In prescribing these diets it is necessary to state total number of calories and number of calories and number of grams of protein, carbohydrates, and fats desired. It is also necessary to determine if the diet will result in a deficiency in minerals and vitamins and administer them on the ward if needed.

c. Sample menus.—Sample reducing or low caloric menus mean nothing to anyone except those for whom the diets are written. However, below are sample menus merely to indicate the relationship between protein, carbohydrates, and fats.

Breakfast	Dinner		Supper	
		Grams		*Grams*
Grapefruit ½.	Lean meat	75	Lean meat	80
Eggs, 2.	Vegetable, 3-percent cooked.	120	Vegetable, 6-percent	75
Toast, 1 slice.	Vegetable, 6-percent cooked.	75	Vegetable, 3-percent	120
Coffee (no sugar or cream).	Lettuce	60	Cottage cheese	5
	Apple, fresh	100	Grapefruit	10
Butter, 5 grams.	Milk, skimmed	240	Skimmed milk	240
	Tea or coffee, plain.		Tea or coffee, plain.	
	Butter	10		

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

d. Nonhospitalized patient.—In prescribing reducing diets, it is important that the patient not in hospital have definite instructions about the food permitted, both as to kind and quantity. A form is provided for this purpose. On one side the articles permitted are listed and on the other the amounts permitted of carbohydrates, protein, and fats for each meal are listed. Pamphlet outlining the diet should be furnished the patient on discharge from the hospital (see par. 132).

38. High vitamin diet.—*a. General.*—(1) A high vitamin diet without qualification simply means a diet composed of foods known to be rich sources of all vitamins known to be of value in maintaining health. It is known now that vitamins A, B, C, D, E, and G are required. Diets that are rich in all these vitamins have produced good results in many cases.

(2) Deficiency in a single vitamin is an uncommon clinical finding; many of these cases also have subclinical deficiencies in some or all the other vitamins. It is therefore expected that a "shotgun" diet prescription of this type would produce excellent results.

b. Foods.—See paragraph 7*b* for foods rich in the above-mentioned vitamins.

c. Sample menus.—Below is a sample menu for the above type of diet:

Breakfast	Dinner	Supper
Fresh banana.	Orange juice.	Tomato juice.
Grapefruit juice.	Barley soup.	Mushroom soup.
Cream of wheat.	Chicken with gravy.	Roast beef, gravy.
Eggs, 2.	Mashed potatoes.	Baked potato stuffed with ground liver.
Graham toast, butter, 2 patties.	Scalloped tomatoes.	Buttered string beans.
Milk and cream (half and half).	Spinach.	Graham bread, butter, 2 patties.
	Graham bread, butter, 2 patties.	Milk and cream (half and half).
	Milk.	Floating island pudding.
	Prune whip with whipped cream.	

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION VII

DISEASE OF COLON

Paragraph
General 39
Bland foods 40
Ulcerative colitis, high caloric, high vitamin, low residue diet 41
Diet for diverticulosis of colon 42

39. General.—The dietary management in diseases of the colon is difficult. Structural changes observed in diverticulosis, ulcerative colitis, and many other diseases affecting the large bowel demand an adjustment of the diet. Different stages of the same disease, and different diseases of the colon, do not require the same diet. The general principles in constructing the menus for all these diseases are similar. There are certain foods that must be avoided, others may be used when properly prepared, and still others that may be used cautiously in small quantities. There are four large groups of foods that deserve special consideration. Since they make up a large part of all diets, special attention is directed to these groups. All of them are "bland" foods. Others must be avoided. The appropriate diet pamphlet should be furnished the patient when discharged from the hospital.

40. Bland foods.—*a. Cereal.*—All cereals are used except those containing bran. The ones most commonly used are—

Farina.	Oatmeal.	Rice flakes.
Food of wheat.	Corn flakes.	Puffed rice.
Cream of wheat.	Rice krispies.	Puffed wheat.

b. Dessert.

Custards.	Gelatin desserts (without nuts).	Whips (use bland fruits).
Cornstarch puddings.	Ice cream.	Plain rice pudding.
Cakes and cookies, plain.		Bread pudding.
		Tapioca pudding.

c. Fruit.

Peaches, Pears, Apples, Apricots	Cooked.
Well-ripened bananas, Avocado, Orange juice	Raw.

d. Vegetables.

White potato.	Purée of—	Purée of—Con.
Rice.	Asparagus tips.	Pumpkin.
Macaroni.	String beans.	Carrots.
Spaghetti.	Peas.	Beets.
	Squash.	

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

41. Ulcerative colitis, high caloric, high vitamin, low residue diet.—*a. General.*—There are many stages of ulcerative colitis. In the acute stage, with or without toxic symptoms, a very bland diet should be used and as the symptoms subside in any stage, gradually increase the diet to include other nonirritating foods.

b. Requirements.—The diet for ulcerative colitis must—

(1) Be high caloric.

(2) Be high in vitamins.

(3) Contain very little indigestible residue.

(4) Contain a high protein content (about 25 percent above the normal intake for the patient).

(5) Omit irritating foods and condiments (except salt).

(6) Not contain raw milk in the acute stages.

c. Food selection.—These diets are prepared as outlined below:

Food	Permitted	Avoid
Beverages	Coffee, tea, and water. Milk and cream may be added later as symptoms are subsiding.	All iced drinks.
Bread	All types except those containing bran.	All types containing bran.
Cereal	All cooked cereals, early, except those containing bran. As symptoms subside may use all dry cereals, except bran cereals. Macaroni, spaghetti and Italian pastes are permitted.	All bran cereals at all times.
Cheese	Creamed cottage cheese	All others.
Dessert	Ice cream (if eaten slowly), boiled custard, rice pudding, gelatin desserts made with cream, junkets, sponge cake, or any strictly bland dessert. Add lactose to desserts instead of extra sugar, and cream instead of milk in making desserts.	All desserts containing fruits or berries, early. As symptoms subside bland fruits permitted.
Eggs	Soft-boiled, coddled, or poached. Use freely.	Fried.
Fats	Cream, butter, salad oil, mayonnaise, and bacon, in liberal amounts.	

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Food selection—Continued.

Food	Permitted	Avoid
Fruit	Orange juice liberally and very ripe bananas in acute cases. Later, bland fruits are permitted. The bland fruits are listed in paragraph 40c.	All coarse fruits with fiber, seeds or skins. Cooked fruits should be sieved.
Meat	All meats and meat broths except fried meats. Liver and sweetbreads liberally.	All highly seasoned and fried meats.
Soup	Cream soups made with vegetable purée and cream. Also meat broths.	All others.
Vegetables	Potato (except fried), purée of asparagus, peas, tender string beans, squash, tomatoes, turnips, eggplant, pumpkin, and beets. Use tomato juice liberally.	Any vegetable not puréed, cabbage, cauliflower, brussels sprouts, coarse string beans, and corn. Celery may be added if it is tender and chopped very fine.
Vitamins	Give cod liver oil, viosterol, brewers' yeast, and wheat germ preparations to furnish the vitamins. See paragraph 7*b* for list of foods high in vitamin value.	

d. Sample menus.—Below are suggested menus for the acute or severe and the convalescent stages. The increase in foods permitted should be gradual and the rapidity of increase dependent upon improvement in patient's condition.

(1) *Acute or severe cases.*

Breakfast	Dinner	Supper
Strained oatmeal, cream.	Cream tomato soup.	Cream pea soup.
Bacon.	Tenderloin steak.	Creamed sweetbreads
Coddled eggs.	Creamed potato.	Baked potato.
Zweiback, butter.	Bread, butter.	Puréed asparagus.
Coffee.	Boiled custard.	Bread, butter.
	Cream.	Tapioca pudding.
	Tea or coffee.	Tea or coffee.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Convalescent cases.*

Breakfast	Dinner	Supper
Orange juice. Strained oatmeal. Bacon. Coddled eggs. Toast, butter. Coffee.	Cream tomato soup. Tenderloin steak. Creamed potatoes. Purée of carrots. Lettuce (finely shredded), mayonnaise. Bread, butter. Boiled custard. Cream. Tea, coffee, or milk.	Cream pea soup. Creamed potato. Puréed asparagus. Bread, butter. Jelly. Tea, coffee, or milk.

42. Diet for diverticulosis of colon.—*a. General.*—This diet is similar to the diet for convalescent ulcerative colitis cases except—

(1) Vitamin concentrates may not be required.

(2) Fruit juices are used liberally with and between meals.

(3) Agar-agar or mineral oil or both may be required to relieve constipation.

b. Use.—Diet is probably the most important part of the treatment. Even though all of the symptoms have disappeared, the diet should be continued, because a return to some foods will in all probability cause a return of the symptoms. The diet should not be changed except upon the advice of a physician.

c. Food selection.—The following guide to be used in selecting the food for menus should be carefully observed.

Food	Permitted	Avoid
Beverage	Milk, coffee, tea, and water	Iced drinks.
Bread	All types except those containing bran.	All others.
Cereal	All cooked cereals, except those containing bran. As symptoms subside, may use all dry cereals except bran cereals. Macaroni, spaghetti, and Italian pastes are permitted.	All bran cereals at all times.
Cheese	Cream cottage cheese	All others.
Dessert	Ice cream (if eaten slowly), boiled custard.	

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Food selection—Continued.

Food	Permitted	Avoid
Vegetables	Potato (except fried), purée of asparagus, peas, tender string beans, squash, tomatoes, turnips, eggplant, pumpkin, and beets. Use tomato juice freely.	Any vegetable not puréed, cabbage, cauliflower, brussels sprouts, coarse string beans, and corn. Celery may be added later if it is tender and chopped very fine.
Vitamins	In addition to the vitamins in the diet, additional vitamins may be prescribed. Cod liver oil, viosterol, brewer's yeast, and wheat germ preparations are generally used.	

d. Sample menu.—In preparing the menu, the following general outline will insure a balanced diet that will meet the above requirements:

Breakfast	Dinner	Supper
Orange juice, 1 glass. Sieved oatmeal, 1 large serving. Bacon, 2 or 3 slices. Coddled eggs, 2. Toast, 2 slices. Butter, as desired. Coffee, 1 cup.	Cream of tomato soup, 1 serving. Tenderloin steak, 1 serving. Creamed potatoes, 1 serving. Purée of carrots, 1 serving. Lettuce, finely shredded (small serving). Mayonnaise, as desired. Bread, 2 slices. Boiled custard, 1 serving. Cream, 30 cc. Butter, as desired. Milk, 1 glass.	Cream of pea soup, 1 serving. Creamed sweetbreads, 1 serving. Baked potato, 1 serving. Purée of asparagus, 1 serving. Bread, 2 slices. Jelly, as desired. Butter, as desired. Milk, 1 glass.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION VIII

LIVER AND GALL BLADDER DISEASES

	Paragraph
General	43
Low fat diets	44
Low fat sample menus	45

43. General.—*a.* Diseases of the liver and its drainage tracts call for modifications of the normal diet. These variations are numerous, depending on pathology found and the stage of the disease. They usually embrace—

(1) Change in consistency, namely, liquid, soft, and regular.

(2) Reduction in protein content.

(3) Marked reduction of fats, or a fat-free diet.

(4) A high caloric diet (usually increased caloric intake over the normal for the patient by 15 percent to 25 percent).

(5) A high carbohydrate intake.

b. It must be remembered that most liver and gall bladder pathology is either chronic when found, or becomes chronic. Dietary measures are necessary over long periods and frequently the remainder of the patient's life. Because fats and proteins must be reduced, the remainder of the caloric intake must be made up of carbohydrates. Many names have been given to such diets, namely, high carbohydrate, low fat, fat-free, diet for gall bladder disease, etc. For the purpose of simplicity it is believed that all these can be arranged under four groups known as low fat diets. If it were possible to obtain a fat-free diet, it is doubtful if it would be used. The term high carbohydrate diet is not within itself suggestive enough of the conditions for which it is used. Low fat diet is suggestive at least of the pathological condition, and it is unnecessary to add the carbohydrate to the name for these diets must contain it anyway. The patient should be furnished with the pamphlet outlining this diet on discharge.

44. Low fat diets.—*a.* The low fat diets are—

(1) Liquid.

(2) Soft.

(3) Salt-free.

(4) Regular.

b. Such diets may be adapted to the various stages of all the pathological processes found in the liver and gall bladder. They are constructed from the foods listed below:

(1) *Bread.*—No restriction.

(2) *Beverage.*—Tea, coffee, skimmed milk.

(3) *Cereal.*—No restriction.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(4) *Crackers.*—White and graham.

(5) *Dessert.*—No restriction on plain desserts made without fats and eggs. Jams, jellies, and hard candies permitted freely.

(6) *Eggs.*—Restrict to one daily.

(7) *Fruit.*—No restriction.

(8) *Italian paste.*—No restriction.

(9) *Meat.*—Beef, chicken, or turkey (trim all visible fat).

(10) *Soup.*—Permit only skimmed meat, chicken, and vegetable broths.

(11) *Vegetables.*—No restriction.

Avoid all fried and salty foods, butter, cream, mayonnaise, and other concentrated fats.

c. Unless otherwise specified by the medical officer, menus will be constructed as follows:

(1) Total caloric increase, 20 percent.

(2) Protein reduction, 15 percent.

(3) Fatty foods and concentrated fats and oils eliminated.

d. The low fat, salt-free diet is in the true sense of the word a misnomer because all food normally contains some salt. By this term is meant food prepared without the addition of salt. Such a diet is used in advanced liver pathology accompanied by ascites. Because of the ascites, fluid intake is limited. Foods making up this diet must be carefully selected to avoid those that contain much water or salt. Carbohydrates remain increased, and fats and proteins reduced. These diets should be weighed, permitting about 30 percent to 50 percent above the basal diet, depending on the activity of the patient. Weighing the food insures proper restriction of salt and water digested. Retain the fat-soluble vitamins.

45. Low fat sample menus.—*a. Liquid diet.*

Breakfast	Dinner	Supper
Grapefruit juice. Farina. Skimmed milk. Sugar. Coffee. 10:00 AM. Orange juice. Gelatin dessert.	Skimmed chicken broth. Canned pineapple juice. Skimmed milk. Tea or coffee. 2:00 PM. Orange juice.	Grape juice. Cream of wheat. Skimmed milk. Sugar. Tea or coffee. 9:00 PM. Canned pear juice. Hard candy.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Soft diet.

Breakfast	Dinner	Supper
Purée of fresh figs. Food of wheat. Skimmed milk. Toast, jam. Coffee. 10:00 AM. Orangeade. Hard candy.	Skimmed beef broth. Poached egg, 1. Mashed potato. Purée of peas. Bread, jelly. Plain custard. Tea or coffee. 3:00 PM. Lemonade. Hard candy.	Riced potatoes. Asparagus tips. Toast, jam. Purée stewed prunes. Tea or coffee. 9:00 PM. Skimmed milk or grapefruit juice.

c. Salt-free diet.— Prepare all foods without addition of salt.

Breakfast	Dinner	Supper
Fresh figs. Banana. Coddled egg, 1. Toast, jam. Sugar. Milk, 120 cc.	Fresh lamb chops. Baked potato. Fresh asparagus. Pineapple. Bread. Hard candy.	Scrambled egg, 1. Mashed potato. String beans. Fresh plums. Bread, jelly. Candy.

d. Regular diet.

Breakfast	Dinner	Supper
Orange juice. Muskmelon. Coddled egg, 1. Toast, jam. Skimmed milk. Coffee. 10:00 AM. Lemonade. Hard candy.	Skimmed chicken broth, crackers. Broiled chicken. Baked potato. String beans. Pineapple-lettuce salad. Bread, jelly. Plain pudding. Tea or coffee. 3:00 PM. Orangeade. Hard candy.	Steamed rice. Peas. Toast. Skimmed milk. Canned peaches. Plain cake. Tea or coffee. 9:00 PM. Skimmed milk or pineapple juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION IX

PELLAGRA PREVENTIVE (P. P.)

Paragraph
General 46
Foods tested quantitatively 47
Diet construction 48
Sample menus 49

46. General.—*a.* The symptoms usually ascribed to pellagra result from a deficiency of a specific vitamin, nicotinic acid, sometimes called P. P. factor, and probably other members of the vitamin B complex. For this reason, in the treatment of pellagrous symptoms, it is not always sufficient to provide nicotinic acid alone. It is considered desirable to supply in addition the other members of the vitamin B complex. Valuable information was obtained and released by the British Research Commission in 1932 and the United States Public Health Commission in 1934. These reports form a basis for the pellagra preventive factors in the tables below, and for the establishment of menus known to be adequate in the prevention and treatment of pellagra.

b. The diet should be high caloric, namely, 40 to 45 calories per kilo of body weight. The ratio between protein, fats, and carbohydrates should be approximately that of the normal diet of a healthy person. Enough of these foods have been tested for the pellegra preventive factor to insure adequate P. P. factor and still have a variety in the menu. Of the foods tested only those classed as "good" or "rich" for pellegra prevention are given. If they are arranged in the menu properly, adequate P. P. factor will be consumed.

47. Foods tested quantitatively.—*a. Class "good."*—This classification means that in the quantities indicated, if eaten in 24 hours, the food contains enough pellagra preventive factor to prevent the disease.

Food	Amount, grams	Food	Amount, grams
Beef, fresh	200	Peas, green (can)	450
Beef, corned (can)	200	Tomato juice (can)	1, 200
Chicken (can)	325	Turnips, green (can)	482
Liver, pork (dried)	64	Liver, Minot's extract (equivalent 10 gms liver)	343
Pork, shoulder, lean	200	Peanut meal	200
Rabbit	184	Wheat germ, ether extract	150
Salmon (can)	168	Bakers' dried yeast	30
Buttermilk	1, 200	Brewers' dried yeast	30
Collard (can)	482	Yeast vitamin powder	15
Kale (can)	534		

NOTE.—The above classification is taken from U. S. Public Health Report, June 29, 1934.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Unclassified.—The following table is a list of foods either good or rich in vitamin G but quantitative test of amount to be ingested to prevent pellagra has not been done.

Food	Source	Food	Source
Wheat, bran	Good.	Spinach, raw	Good.
Wheat, embryo	Do.	Mutton	Do.
Peas, dried	Do.	Ox kidney	Rich.
Cabbage, green, fresh	Do.	Ox liver	Do.
Cabbage, green, dried	Do.	Pork	Good.
Spinach, cooked	Do.	Hens' eggs	Do.
Spinach, dried	Do.	Cow's milk, whole, fresh	Do.

48. Diet construction.—In the construction of a diet to be used in the treatment of pellagra, select enough foods from the table showing the pellagra-preventive factor to insure a diet providing twice the amount of P. P. factor necessary to prevent pellagra if eaten in 24 hours. For instance, if it requires 1,200 grams of tomato juice in 24 hours and only 200 grams are given, then there is provided only one-twelfth as much as should be provided per day. In addition, to round out the diet, other foods selected should be from the list showing good and rich sources as far as possible.

49. Sample menus.—*a. Suggested menus.*—Suggested menus which give amounts of servings, evaluated pellegra-preventive factors*, and calories are given below:

	Food	Amount (grams)	P. P. factor	Calories
Breakfast	Tomato juice	200*	$\frac{G}{1,200}$	40
	Eggs, two	74		148
	Whole wheat toast	30		72
	Butter	20		154
	Milk, sweet	200		138
Dinner	Creamed spinach soup	200		218
	Rabbit	70*	$\frac{G}{184}$	200
	Peas	100	$\frac{G}{450}$	68
	Rutabagas	100		36
	Soy bean bread	30		73

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

a. Suggested menus—Continued.

	Food	Amount (grams)	P. P. factor	Calories
Dinner (Con.)	Butter	20		154
	Baked banana	100		120
	Buttermilk	200*	G / 1,200	72
Supper	Canned salmon	100*	G / 168	196
	Cabbage	100		25
	Carrot	100		40
	Tomato juice	200*	G / 1, 200	40
	Whole wheat bread	30		76
	Butter	20		154
	Blackberries, fresh	100		46
	Extras:			
	Cream, table	100		208
	Sugar	26		104
Midmeal nourishments.	Buttermilk or tomato juice	400*	G / 1, 200	144
Breakfast	Orange juice	10		39
	Broiled liver	100*	G / 100	124
	Crisp bacon	15		77
	Whole wheat toast	30		76
	Butter	20		154
	Milk, sweet	200		138
Dinner	Cream tomato soup	200		200
	Steak	100*	G / 100	293
	Turnip greens	200*	G / 482	64
	Onions, green	50		22
	Vegetable salad	100		64
	Mayonnaise	10		76
	Buttermilk	200*	G / 1, 200	72
	Whole wheat bread	30		76
	Butter	20		154
	Melon	200		58
Supper	Chicken	100*	G / 325	110
	Collards	100*	G / 482	22
	Baked potato	67		84
	Butter	30		216

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

a. Suggested menus—Continued.

	Food	Amount (grams)	P. P. factor	Calories
Supper (Con.)	Whole wheat bread	30		76
	Fresh tomato	100	$\frac{G}{1,200}$	20
	Buttermilk	200	$\frac{G}{1,200}$	72
	Peaches, fresh	150		60
	Extras:			
	Cream, table	100		208
	Sugar	26		104
Midmeal nourishments.	Buttermilk or tomato juice	400	$\frac{G}{1,200}$	144

b. Each daily menu furnishes about 2,800 calories and a P. P. content equal to twice the quantity required daily to prevent pellagrous symptoms. If a lower caloric intake is indicated, articles may be dropped from the menus but the total P. P. factor must not be decreased. Brewers' yeast, liver extract, and other vitamin concentrates will be ordered on the ward as indicated.

SECTION X

KETOGENIC (K. P.)

Paragraph
Ketone formation method 50
Diet requirements 51
Caution in formulating 52
Construction of menus 53

50. Ketone formation method.—*a. Glucose content.*—In epilepsy and some urinary tract infections, ketones exert a beneficial effect. Ketone bodies are produced from incomplete combustion of ingested fats. Fats ingested will combust completely only in the presence of adequate carbohydrate. It must be remembered that 10 percent of fat and 58 percent of protein become carbohydrate in the process of combustion; therefore in computing the total glucose content in grams of a diet it should be done as follows:

		Calories		*Total glucose intake, grams*
Protein:	70 gm×4=	280	58 percent of 70=	40.60
Carbohydrates:	120 gm×4=	480	100 percent of 120=	120.00
Fats:	180 gm×9=	1,620	10 percent of 180=	18.00
		2,380		178.60

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Fatty acid content.—To obtain the fatty acid content of the same diet it is necessary to deduct the 10 percent sugar content of the fat and allow for 46 percent of the protein being converted into fatty acids. The carbohydrates yield no fatty acids. The same diet should be figured as follows for the fatty acid bodies:

		Calories		*Total fatty acids, grams*
Protein:	70 gm ×4=	280	46 percent of 70=	32.90
Carbohydrates:	120 gm ×4=	480	1 percent of 70=	0
Fats:	180 gm ×9=	1,620	90 percent of 180=	162.00
		2,380		194.90

c. Ratio.—The fatty acid-glucose ratio of this diet is $\frac{FA}{G}=\frac{195}{179}$. Knowing that 1 gram of carbohydrate promotes complete combustion of 1.5 to 2 grams of fat, it is easily seen the above diet does not meet the requirements of a ketone producing diet.

51. Diet requirements.—*a.* The essentials of a ketogenic diet are—

(1) Total caloric intake to remain normal, or slightly increased for sex, proper weight, height, age, activity, etc.

(2) Begin diet by setting $\frac{FA}{G}$ ratio at $\frac{2}{1}$. Gradually (every second day), increase this ratio by increasing fat 5 percent and decreasing the carbohydrates sufficiently to maintain a constant caloric intake. Nausea develops when carbohydrates reach 40 to 50 grams. If it does not, hold at this point a few days; do not increase further. At whatever point it develops, give orange juice or a little sugar to relieve it temporarily and maintain the diet at this level, and the body will usually adjust itself to it. If nausea persists return to a regular diet for a few days and repeat the process.

(3) These diets must be weighed and each one is calculated to fit the patient being treated.

(4) Protein intake must be kept adequate. No one can state how much the $\frac{FA}{G}$ ratio will have to be increased before ketosis develops. The ratio is variable in different people and at different ages. Symptoms of ketosis will usually develop between $\frac{FA}{G}\ \frac{2}{1}$ to $\frac{4}{1}$.

(5) The urine must be examined daily for ketones.

b. When this diet is prescribed great care must be exercised to insure proper ratio between carbohydrates, proteins, and fats. The diet must be accurately weighed and each meal contain one-third of the

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

total daily intake. It is the practice by some to maintain a set of ketogenic diets variable in content, and when patients are admitted attempt to fit the patient to the diet that approximates the requirements. For practical purposes this is satisfactory. However, it is believed that the prescription should be written to fit the patient after basal and maintenance requirements have been properly checked, based upon age, sex, proper weight, height, activity, pathological processes present, etc., and have been given proper consideration. When requesting this diet it is necessary for the dietitian to have definite information and it should be expressed as follows: Ketogenic diet. Protein, 70 grams. Calories, 2,400. $\frac{FA}{G}-\frac{2}{1}$. Such a form should be repeated each time the $\frac{FA}{G}$ ratio is to be increased.

52. Caution in formulating.—Special attention is given to certain foods in the formation of ketogenic diets.

a. Use freely—

Butter. Oils. Fats. Cream, 40-percent.
Vegetables, low carbohydrate content.
Fruits, low carbohydrate content.

b. Avoid—

Sugar. Starches.
Vegetables, higher carbohydrate content.
Fruits, higher carbohydrate content.

53. Construction of menus.—*a.* The menu is constructed so that each meal will provide one-third of the total daily allowance, for example, protein, 23 grams; carbohydrates, 23 grams; fats, 68 grams; total, 800 calories.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Sample menus.—Sample menus are given below.

	Food	Amount, grams	Protein	Carbohydrates	Fats	Calories
Breakfast	Strawberries	94	0.8	4.7	------	22.
	Eggs, 2	100	12.0	------	10.0	138.
	Crisp bacon	20	3.3	------	10.0	103.2
	Bread	20	1.8	10.2	.4	51.6
	Butter	16	------	------	13.6	122.4
	Pastry cream	75	1.6	2.3	30.0	285.6
	Milk, whole	115	3.8	5.8	4.6	85.8
	Coffee	------	------	------	------	------
	Total	------	23.3	23.0	68.6	808.6
Dinner	Broiled salmon	87	19.1	------	11.3	178.1
	With butter	20	------	------	17.	153.0
	Summer squash	75	.5	3.7	------	16.8
	Eggplant	75	.7	3.7	------	17.6
	Celery hearts	75	.7	3.7	------	17.6
	Ripe olives	25	.3	1.2	5.	51.0
	Bread	10	.9	5.1	.2	25.8
	Butter	17	------	------	14.5	130.5
	Grapefruit	41	.2	4.1	------	17.2
	Pastry cream	50	1.1	1.5	20.	190.4
	Coffee	------	------	------	------	------
	Total	------	23.5	23.0	68.0	798.0
Supper	Steak	76	15.2	------	15.2	197.6
	String beans	75	1.1	3.7	------	19.2
	Table cream	33	1.0	1.3	6.6	68.6
	Stewed tomatoes	100	1.	5.0	------	24.0
	Celery hearts	75	1.	3.7	------	18.8
	French dressing	15	------	------	10.0	90.0
	Bread	17	1.5	8.7	.3	43.5
	Butter (all purposes)	33	------	------	28.1	252.9
	D. Zerto	1 serv.	.2	------	------	8.0
	Whipped cream	20	.4	.6	8.0	76.0
	Coffee	------	------	------	------	------
	Total	------	23.2	23.0	68.2	798.6

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Sample menus—Continued.

	Food	Amount, grams	Protein	Carbohydrates	Fats	Calories
Breakfast	Tomato juice	100	1. 0	5. 0	------	24. 0
	Eggs, 2	100	12. 0	------	10. 0	138. 0
	Bacon	20	3. 3	------	10. 0	103. 2
	Bread	20	1. 8	10. 2	. 4	51. 6
	Butter	16	------	------	13. 6	122. 4
	Pastry cream	75	1. 6	2. 3	30. 0	285. 6
	Milk	115	3. 8	5. 8	4. 6	79. 8
	Coffee	------	------	------	------	------
	Total	------	23. 5	23. 3	68. 6	804. 6
Dinner	Cream soup—spinach	50	1. 1	2. 5	------	14.
	Pastry cream	50	1. 0	1. 5	20. 0	190. 4
	Milk	100	3. 3	5. 0	4. 0	69. 2
	Ham	75	15.	------	16. 5	208. 5
	Stewed celery	100	1. 5	5. 0	------	26. 0
	With butter	8	------	3. 7	6. 8	61. 2
	Tomato salad	75	. 7	------	------	17. 6
	Mayonnaise	15	------	------	12. 8	115. 2
	Peach whip—					
	Peach	47	3. 3	4. 7	------	20. 0
	With cream	20	. 4	. 6	8. 0	76. 0
	Coffee	------	------	------	------	------
	Total	------	23. 3	23. 0	68. 1	798. 1
Supper	Roast lamb	86	18. 0	------	11. 2	172. 8
	Gravy	15	. 2	1. 2	2. 6	29. 0
	Cauliflower	50	1. 0	2. 5	------	14. 0
	Asparagus tips	100	2. 0	5. 0	------	28. 0
	Avocado salad	50	1.	3. 3	16. 2	163. 0
	French dressing	20	------	------	13. 4	120. 6
	Butter (all purposes)	29	------	------	24. 7	222. 3
	Oranges	110	1. 1	11. 0	------	48. 4
	Coffee	------	------	------	------	------
	Total	------	23. 3	23. 0	68. 1	798. 1

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION XI

CALCIUM

Paragraph
High calcium diet 54
Low calcium diet 55

54. High calcium diet.—*a. Use and construction.*—The high calcium diet is frequently used in the treatment of rickets, malnutrition, some parathyroid diseases, and other wasting diseases where an increase of calcium intake is desired. Because of the nature of the diseases for which this diet is so often used, special attention is also given to vitamin D. It is therefore often desirable to combine the high calcium diet with a high vitamin D diet. In some parathyroid disorders requiring a high calcium diet, it is necessary to administer parathyroid extract. There are many ways of constructing this diet. Usually liquid and soft diets are not required. Unless the patient's general condition is a contraindication the regular or full diet is easily modified by substitution or addition of articles that have a high calcium content. However, if liquid or soft diets are required the routine liquid and soft diets may be taken as a base and altered sufficiently to insure a high calcium intake.

b. Food selection.—(1) The following foods are high in calcium content. Only enough of the common ones are listed to give variety to the diet.

Amount (grams)	Food	Calcium (grams)	Amount (grams)	Food	Calcium (grams)
100	Beans, kidney	0. 160	100	Milk, condensed	0. 300
100	Buttermilk	. 105	100	Milk, evaporated	. 349
100	Cauliflower	. 123	100	Molasses	. 211
100	Chard	. 150	100	Okra	. 071
100	Cheese	. 931	100	Olives, green	. 122
100	Cottage cheese	. 208	100	Oysters	. 054
100	Cocoa	. 112	100	Parsnips	. 076
100	Eggs, two	. 067	100	Rutabaga	. 074
100	Milk, skim	. 122	100	Spinach	. 067
100	Milk, whole	. 120			

(2) If variety is not afforded in the above table others may be found in tables of composition of common foods in various books on dietetics. Milk and cheese should be used in this diet freely.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Sample menus.

Breakfast	Dinner	Supper
Sliced orange. Farina. Soft-boiled eggs, two. Bacon. Toast, butter. Milk.	Celery soup. Roast beef. Mashed potatoes. Chard. Pineapple-cottage cheese salad. Bread, butter. Tapioca pudding. Milk. Coffee.	Beef bouillon. Sliced cheese. Spinach. Potato salad. Green olives. Bread, butter. Milk. Coffee.

d. Vitamin D.—When vitamin D is desired in larger quantities the following foods rich in this vitamin may be added to the diet or if already given increase the amount taken:

Butter (summer).	Egg yolk.	Irradiated foods.
Beef liver.	Halibut oil.	Salmon.
Cod liver oil.		

55. Low calcium diet.—*a. Use and construction.*—This diet is useful in all cases where intake of calcium is to be limited. It is especially useful in lead poisoning when combined with the diet food containing a high acid base residue. To secure this diet, it is obviously necessary to avoid the foods under the high calcium diet that are rich in calcium. Because drinking water may contain relatively large amounts of calcium, it is advisable to have patients on this diet use distilled water.

b. Food selection.—The following guide may be used in preparing menus with a low calcium content. The total caloric intake and ratio between protein, carbohydrates, and fats should be that of the normal or regular diet.

Food	Permitted	Avoid
Cereal and bread	All forms except wheat bran.	
Fruit	Apples, apricots, avocados, bananas, blackberries, cherries, cranberries, grapefruit, grapes, peaches, pear, pineapple.	Dried dates, dried figs, lemons, oranges, dried prunes, raisins, raspberries, strawberries.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection—Continued.

Food	Permitted	Avoid
Meat	Poultry and dairy products	Dried beef, oysters, mincemeat, eggs, shrimp, buttermilk, all cheese, all ice cream, cream, milk.
Nuts	None	All.
Vegetables	Artichoke, asparagus, beets, cantaloupe, canned corn, cucumbers, eggplant, lettuce, onions, green peas, green peppers, white potatoes, sweetpotatoes, pumpkin, radishes, squash, (hubbard) tomatoes, watermelon.	Dry beans, green beans, baked beans, cabbage, carrots, cauliflower, celery, chard, kale, parsnips, dry peas, rhubarb, rutabagas, sauerkraut, spinach, turnips.

c. Sample menus.

Breakfast	Dinner	Supper
Pineapple juice.	Beef bouillon.	Roast beef.
Grapefruit.	Veal cutlets.	Steamed rice.
Crisp bacon.	Mashed potatoes.	Green peas.
Toast, butter.	Asparagus tips.	Artichoke-lettuce salad.
Coffee.	Tomato-lettuce salad.	Bread, butter.
	Bread, butter.	Cherries.
	Sliced pears.	Coffee.
	Coffee.	

SECTION XII

CARDIOVASCULAR-RENAL (C. V. R.)

	Paragraph
General	56
Disease and type of diet	57
Food selection	58

56. General.—*a.* This group of diseases requires a number of diets due to the nature of the pathological processes and the changes that have already occurred. There is no easy approach to the successful dietary management of this group of cases. Each patient must be properly considered after a careful examination, and the type of diet best suited to his condition prescribed. In ordering this diet the following factors must be given careful consideration:

(1) Total caloric intake.

(2) Total protein intake.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) Total liquids permitted.

(4) Absence of salt or other condiments.

b. In general these diets will average slightly above a basal diet, namely, 1,500 to 2,000 calories. Usually the protein will be 40 to 60 grams, and in most of these fluids are restricted and salt prohibited. There are various stages of cardiovascular-renal diseases, and many seem to do very well without a diet. However, the average case in hospital requires a diet and the others should have one.

57. Disease and type of diet.—*a.* For dietary management, these cases are divided into the following classification, important dietary principles also being included:

Disease	Diet			
	Calories	Protein (gm)	Salt	Fluids
Cardiac with decompensation.	800–1, 500	20–40	None	1,000 cc.
Cardiovascular with or without hypertension.	1, 500–2, 000	40–60	Limit	As indicated.
Nephritis with urea retention, no edema.	1, 500–2, 000	40–60	None	Freely.
Nephritis, without urea retention, with edema.	1, 800–2, 500	50–60	do	1,000 cc.
Nephritis with urea retention and edema.	1, 500–2, 000	40–60	do	About 1,500 cc.

b. (1) It is obvious the above figures on total calories and grams of protein permitted are only estimates and that each case must be considered by itself. As the general condition improves it will be necessary to change the diets. In acute or critical stages of the disease further restrictions may be required. It must be remembered that articles of diet contain salt. It is not practical to remove it. The addition of salt or other seasoning can be avoided. Foods that contain a rather liberal amount of salt can also be avoided. These are—

Bread (unless salt-free).
Caviar.
Cheese.
Clams.
Crackers.
Oysters.
Spinach.
Beef.
Beets.
Bran.
Cantaloupe.
Carrots.
Celery.
Chard.
Cress.
Dandelion.
Eggs.
Lima beans.
Milk.
Olives.
Pumpkin.
Raisins.
Strawberries.
Turnips.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) It may be necessary to use milk and eggs but their use should be limited. Butter should be salt-free.

c. When requesting these diets it is important that definite data are furnished. For instance, C. V. R. diet, calories, 1,800; protein, 40 gm, salt-free; fluids, 1,000 cc, will furnish the dietitian all the information needed. A water balance chart should be kept on the ward in all cases requiring limited fluid intake. A sample menu cannot serve all the above conditions. Since most of them show a fairly low caloric intake, a low protein and water intake, such a menu is listed below which must be further modified to meet the demands of the case. All food is prepared without the addition of salt, and patient is not permitted salt on the tray. For additional sample menus, see paragraph 189.

Breakfast	Dinner	Supper
Sliced orange. Puffed rice. Coddled egg, 1. Toast, butter. Jam.	Lamb chops. Baked potato. String beans. Sliced tomatoes. Bread, 1 slice, butter. Vanilla wafers.	Roast chicken. Rice. Green peas. Bread, 1 slice, butter. Baked apple. Sugar. Cream, 20 percent, 30 cc.

58. Food selection.—The following general principles in food selection for cardiovascular-renal cases are advised:

Food	Permitted	Avoid
Beverage	Kaffee hag, Sanka, milk, postum, and water to the limit of fluid intake permitted.	Cocoa, tea, coffee, and alcohol.
Bread and cereal	All breads and cereals may be used. However, in their preparation salt must not be added when used for salt-free diets.	Any prepared cereals that contain salt.
Butter	Salt-free (sweet).	Ordinary butter if a salt-free diet is used.
Cheese	Fresh cottage cheese prepared without salt may be used. Any cheese may be used if salt is not limited.	All except fresh cottage cheese that is prepared without salt if a salt-free diet is used.
Dessert	Plain desserts, cooked or fresh fruits such as fruit gelatin, rice pudding, vanilla wafers, plain sugar cookies, fresh pears, canned peaches.	All rich puddings, cakes, and pies.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Food	Permitted	Avoid
Fruit	Fresh, canned, and cooked fruits may be used freely.	Those mentioned in paragraph 57*b*(1) containing considerable salt.
Meat	Fresh meats for salt-free diets. Bacon, ham, and semicured meats may be used only to limit of protein permitted when diet is not to be salt-free.	
Milk	Milk in quantities justified by the permissible fluid intake. At least 300 cc should be taken daily in all cases.	
Soup	Vegetable if permissible by limited fluid intake. To be prepared without salt if on a salt-free diet.	All meat soups.
Vegetables	Fresh or canned to be used freely.	Whenever possible vegetables in list (par. 57*b* (1)) showing considerable salt content.

SECTION XIII

DIABETES MELLITUS

	Paragraph
General	59
Clinical types of diabetes	60
Types of diets	61
Test diet	62
Basal diet	63
Maintenance diet	64
Protein, carbohydrate, and fat ratio	65
Prescription	66
Training the diabetic	67

59. General.—Dietary problems of patients suffering from diabetes mellitus are unlimited. Many are difficult to solve. There are many ways of handling diabetic diets. A set of tables giving the amount of protein, carbohydrates, fats, and total caloric intake for several test, basal, and maintenance diets is fairly accurate and convenient for hospital use. However, it is impossible for any set of tables to furnish diets that will accurately fit all patients that may be admitted. For this reason and in the interest of training, it is considered best to write each prescription for food to fit the patient rather than attempt to fit the patient to a set of standard diets. The

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

mere treatment of the patient is only a part of his problem. He must have confidence in himself and his procedure. It is therefore necessary that a training school be maintained for this purpose.

60. Clinical types of diabetes.—*a.* There are many clinical types of diabetes mellitus encountered and some of them require special consideration when prescribing their diets. For this purpose the following classification is made:

(1) Potential diabetes mellitus.
(2) Prediabetes mellitus.
(3) Diabetes mellitus, mild; moderate; severe.
(4) Arteriosclerotic diabetes mellitus, mild; moderate; severe.
(5) Juvenile diabetes mellitus, mild; moderate; severe.
(6) Symptomatic diabetes mellitus.

b. Theoretically, some of these are not true diabetes mellitus. However, dietary management is required.

61. Types of diets.—*a.* The diets used in the various clinical types of the disease and in different stages of the same disease are necessarily variable. The objective should be, regardless of the type of the disease, to get the patient in the best possible condition physically, and undergo the greatest amount of instruction permissible as quickly as possible. All diabetics should be well trained, even the potential diabetic. From the standpoint of diet, this can be accomplished quicker by using the following diets in the order named when treating these cases:

(1) Test.
(2) Basal.
(3) Maintenance.

b. All of these diets vary, depending on the age, sex, height, occupation, general condition of the patient, etc. The test diet averages, as a rule, about 25 percent below the basal diet, and while on it the patient should remain in bed. The basal diet is that amount of food required to keep the patient at his normal weight in a basal state, and while on it should remain in bed. To find this refer to tables on basal metabolic requirements. The maintenance diet is one that will maintain the patient at his normal weight and furnish the necessary energy for his customary activity. The total caloric intake must necessarily vary widely.

62. Test diet.—*a. Purpose.*—This diet is used to—

(1) Aid in immediately ridding the patient of excess sugar in urine and blood.
(2) Assist in approximating the tolerance for carbohydrates.

b. Duration.—The test diet should not be used more than 5 or 6 days if it can be avoided.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

63. Basal diet.—The basal diet is seldom used. It may be necessary when some associated diseases and metabolic disorders are present.

64. Maintenance diet.—The next step after passing through the test and basal diets is the maintenance diet. By this time the urine should be free of sugar, blood sugar under control and a balanced state reached by insulin if needed, sella turcica X-rayed, and BMR obtained. Adequate time should be taken to learn pertinent information about the type of life the patients are living. Care must be taken not to make invalids of them. Occupation is important. Those leading an active, outdoor life or performing hard manual labor require more calories than those who are too old or crippled to move about actively. Only by a careful interview can a fair estimate be made of what the total caloric requirements should be. If this is done wisely it will save much trouble with later modifications of the diet. It is discouraging to patients to change their diets and insulin dosage frequently.

65. Protein, carbohydrate, and fat ratio.—In all diabetic diets the protein content of the food should be sufficient to maintain muscular mass in its proper state. In the adult this should be 1 gram per kilo of body weight. In the absence of associated diseases, it should be maintained at this level in the test, basal, and maintenance diets. When treating children the protein should be used at the rate of 2 to 3 grams per kilo of body weight, depending on general condition and weight of child. The ratio between carbohydrate and fat is somewhat variable. It is known that fat is completely combusted only in the presence of adequate carbohydrate. If carbohydrates are restricted too much the fat combustion is incomplete and ketone bodies result. It is believed that the ratio between carbohydrate and fat should not fall below 1/1 and it is frequently necessary to use 1¼ or 1½ grams of carbohydrates to 1 gram of fat.

66. Prescription.—*a.* Formerly, carbohydrate was almost eliminated in the diabetic diet. Simultaneously with the use of insulin there developed a boldness in the more liberal use of carbohydrate so that it was not unusual to find diabetics consuming almost as much carbohydrate as is contained in a normal diet. In general, the pendulum has swung back to what may be termed the "happy medium."

b. The maintenance diet for an adult diabetic will ordinarily contain from 100 to 300 grams of carbohydrate and not more than 160 grams of fat. A dogmatic statement regarding these factors cannot be

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

made. However, when diets do not conform to these limitations there should be patent reasons for it. Consider the following factors in the order mentioned when writing a prescription for a diabetic diet.

(1) *Total caloric requirement.*—Consider the type of diet required, whether a test, basal, or maintenance. If a maintenance diet, allow for activity of the patient, type of work performed, etc. It is not wise to discharge even fairly active adult patients on less than 2,400 calories.

(2) *Protein allowance.*—For persons who have reached maturity allow 1 gram per kilo of body weight. If nephritis is present it may be necessary to reduce the protein intake. Growing children require 2 to 3 grams of protein per kilo of body weight.

(3) *Carbohydrate allowance.*—(*a*) The amount of carbohydrate permitted is variable but in the adult is seldom less than 100 grams nor more than 300 grams. An estimate of the patient's general condition must be made. If there are already present ketone bodies or if the patient is obese and a reduction in weight is contemplated, adequate carbohydrate must be given to assure complete combustion of fat and elimination of the ketone bodies. If the patient is of normal weight or slightly underweight it will probably be unnecessary to increase the carbohydrate to a high ratio over the fat allowance. Usually the carbohydrate-fat ratios required are $\frac{\text{carbohydrate}}{\text{fat}} = \frac{1}{1}$ or $\frac{1.25}{1}$ or $\frac{1.5}{1}$. It is not wise to reduce the carbohydrate ratio below 1, but cases may arise when it should be greater than 1.5.

b. Sometimes it is necessary to know the total glucose intake of the patient. This is different from the carbohydrate content of the diet. To arrive at this it must be remembered that 58 percent of the protein and 10 percent of the fat are converted into glucose in the process of metabolism. Carbohydrate is 100 percent glucose. Assume the prescription is—

		Calories
Protein:	75 gm×4 =	300
Carbohydrate:	162 gm×4 =	648
Fat:	161 gm×9 =	1,449
Total		2,397

		Glucose (gm)
58 percent of 75 gm	= 43.50 or	44
100 percent of 162 gm	=	162
10 percent of 161 gm	=	16
Total		222

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(4) *Fat allowance.*—Usually the allowance for fat in the average diabetic diet does not exceed 160 grams, and when it does there should be a special reason. The actual amount of fat used is based on a ratio between fat and carbohydrate which has been described above. It is frequently necessary to know the total fat or ketogenic content of a diet and to find this it is necessary to remember that 46 percent of protein is converted into ketogenic material in the process of metabolism. There is no fat in carbohydrate. Fat itself is only 90 percent ketogenic, the remainder being glucose or antiketogenic. To find the total fat of the same diet prescription proceed as follows:

		Calories
Protein:	75 gm ×4 =	300
Carbohydrate:	162 gm ×4 =	648
Fat:	161 gm ×9 =	1,449
Total		2,397

	Fat (gm)
46 percent of 75 gm = 34.50 or	35
0 percent of 162 gm =	0
90 percent of 161 gm = 144.90 or	145
Total fat or ketone element	180

c. (1) After gaining the information afforded in a good history and physical examination, the requirements are apparent to the experienced, and the prescription can be written easily without reference to a set of tables. It is done as follows: Assume the patient weighs 165 pounds, which is normal for his height, sex, and age, and it has been found that 2,400 calories are sufficient for a maintenance diet, and there are no complicating factors. Convert pounds into kilos by dividing 165 by 2.2 which is 75 kilos. The patient will be given 1 gram of protein for each kilo of body weight, or 75 grams of protein. The 75 grams of protein produces 300 calories. Then 2,400 calories, total amount permitted, minus 300 calories leaves 2,100 calories that must be made up by carbohydrates and fats. At the same time a general estimation of the case is being made, consideration is being given to the carbohydrate-fat ratio and a decision as to what the ratio will be was made when an estimate of total calories was made. Assume it to be $\frac{\text{carbohydrate}}{\text{fat}} = \frac{1}{1}$. One gram of carbohydrate equals 4 calories, and 1 gram of fat equals 9 calories. At this ratio 1 gram each of these two elements equals 13 calories. Total calories left after protein calories are subtracted are 2,100.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Therefore 2,100÷13 equals 161.54 grams which is the number of grams of carbohydrate and fat permitted. Because of the fraction of grams it is decided to give 162 grams of carbohydrate, and 161 grams of fat. All this can be arrived at as fast as one can write. The prescription would then read as follows:

		Calories
Protein:	75 gm×4=	300
Carbohydrate:	162 gm×4=	648
Fat:	161 gm×9=	1,449
Total		2,397

(2) If a higher ratio of carbohydrate to fat is desired, for instance, carbohydrate 1.5 to fat 1, proceed as follows:

	Calories
1½ gm carbohydrate=	6
1 gm fat =	9
Total	15

Then 2,100 calories allowed after protein is subtracted, divided by 15 equals 140 grams of fat. Carbohydrate is 1.5 times that of the fat, so 140 times 1.5 equals 210 grams of carbohydrate. The prescription would then read:

		Calories
Protein:	75 gm×4=	300
Carbohydrate:	210 gm×4=	840
Fat:	140 gm×9=	1,260
Total		2,400

d. Keep in mind the following points when diabetic patients are examined:

(1) Total calories required.
(2) Protein requirement.
(3) Carbohydrate requirement.
(4) Fat requirement.
(5) Carbohydrate-fat ratio.

e. When the prescription is written it should be recorded in the ward order book and on the patient's clinical record and immediately sent to the dietitian. If the prescription does not reach the dietitian in time to construct a menu for the next meal, an emergency ration may be given of the following:

Bouillon, 240 cc.
Milk, 240 cc.
Toast, 1 slice.
Butter, ½ square.
Coffee, 1 cup.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

67. Training the diabetic.—*a.* It is not believed that a mass of diet tables is conducive to establishing interest and proper training of the diabetic. It is realized that tables on composition and nutritive value of foods must be at hand for ready reference. The physician, dietitian, and patient all need these tables as it is not possible nor is it necessary to memorize them. It is the policy so to train the diabetic that he may be able to do the following for himself:

(1) Convert a prescription for the diabetic diet into three equal meals and extend the elements into calories.

(2) Plan the menu for such a prescription, carrying out the extensions into grams and calories of each element with accuracy.

(3) Construct menus from his own maintenance diet prescription.

(4) Estimate weights of various common foods by actual practice on known quantities and attain proficiency in weighing foods.

(5) Examine urine for percentage of sugar with a fair degree of accuracy and care of equipment for urinalysis.

(6) Identify various strengths of insulin from colors on labels.

(7) Self-administration of insulin.

(8) Sterilization of skin for administration of insulin.

(9) Sterilization and care of hypodermic needles and syringes, and properly extract correct dose of insulin from bottle.

(10) Institute proper care for cuts, bruises, corns, and other complications likely to arise.

b. This may seem difficult to accomplish but it is not. If the patient can read, write, add, subtract, and multiply it is relatively easy. The subjects taught patients are—

(1) Method of examination of urine with demonstrations, by laboratory service.

(2) Methods of weighing and measuring diets with demonstrations, by dietitian.

(3) Administration of insulin, including self-administration, method of sterilization of equipment, withdrawing dosage of insulin into syringes, sterilization of site to be injected, and measuring dosage, by charge nurse of ward.

(4) Diabetes mellitus and its complications, and the diabetic diet, by ward officer.

(5) Daily correction of patients' extended diets and constructed menus, by ward officer.

c. Proficiency should be attained by the patient in 2 or 3 weeks. Tables and figures are not interesting unless one can understand and

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

work them. By the above method, proficiency leads to restored confidence in the patient, with added interest and better cooperation. When instruction is presented properly, diabetics eagerly fall in line and maintain interest in the work. As soon as a patient has reached the maintenance diet stage he should be given a copy of the diet prescription and instructed regarding the division of it into 3 meals. The daily menu should be furnished and the patient required to extend the articles on the menu, meal by meal, and require total calories, protein, carbohydrate, and fat in each meal to be that of ⅓ of the total prescription. When proficiency is attained in this, the patient should then be required to take the prescription for his own diet and make up a menu with extensions and submit for the doctor's approval. These should be checked carefully and if protein, fat, carbohydrate, and total calories are correct, it should be sent to the kitchen and filled. The patient should then be required to eat it. The purpose of this is to teach the patient about the proper number of grams of various articles ordinarily used. If one orders too much of any item and is required to eat it, since this is a weighed diet, the error is not likely to happen again.

d. There can be but one answer to the question, of whether the mild diabetic should be trained. There is no assurance that a potential or mild diabetic will not in the near future be a severe diabetic. It is believed that any diabetic should be properly trained and also that mild cases should adhere as closely as others to properly weighed diets. Many cases would probably never have advanced to their present stage had proper dietary precautions been observed.

e. (1) Patients suffering from diabetes mellitus are advised to obtain a diabetic manual, and they are furnished a list of common foods with their nutritive value and menu extension sheets. When discharged they are given a copy of the hospital booklet on diabetes mellitus which contains pertinent information for them and also space for data regarding diet, urinalyses, blood sugar, etc. It has been found that this material is all that is necessary in their training.

(2) Special attention is called to the list of foods commonly used. Such a list can be taken from any authoritative table on nutritive value of foods, makes a convenient ready reference for use while working on menu construction, and is much easier than looking through tables containing hundreds of items, many of which will never be used. A diabetic manual containing complete tables should be in the possession of every diabetic for reference.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

f. The form patients use for training in menu work is shown below:

DIABETIC MENU CONSTRUCTION CHART

Diet: Protein_____
Carbohydrate_____
Fat_____
_____
Total calories_____

BREAKFAST

Article	Amount (grams)	Protein (grams)	Carbohydrate (grams)	Fat (grams)	Calories
Total					

DINNER

Article	Amount (grams)	Protein (grams)	Carbohydrate (grams)	Fat (grams)	Calories
Total					

SUPPER

Article	Amount (grams)	Protein (grams)	Carbohydrate (grams)	Fat (grams)	Calories
Total					
Breakfast					
Dinner					
Grand total for day					

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION XIV

PURIN

Paragraph
Low purin diet 68
High purin diet 69

68. Low purin diet.—*a. General.*—The low purin diet is useful in the treatment of gout and other diseases when it has been determined purin bodies are in excess of the normal. Purin bodies are found in meat and fish principally; therefore a low purin diet will not contain these items. Unless there is renal involvement the protein intake may be kept to approximately normal. This can be done by using milk, eggs, and cheese freely. The total caloric intake may remain at the normal level unless the patient is overweight or there be other reasons for a reduction. The carbohydrate-fat ratio may remain that of the normal diet. Tobacco should be limited and coffee, tea, cocoa, and alcohol avoided.

b. Food selection.—(1) Menus should be constructed as indicated below. Avoid all foods that are likely to cause digestive disturbance as well as purin-bearing ones.

Food	Permitted	Avoid
Fruit	All.	None.
Vegetables	All except those listed in next column.	Lentils, spinach, peas, beans, cauliflower, asparagus, mushrooms, rhubarb.
Cereal	All except those in next column.	All from whole grain.
Bread	All except those in next column.	All made from whole grain.
Soup	All except those in next column.	All broths and those made from meat.
Meat and substitutes	Eggs, shad roe, caviar, cheese, gelatin, milk.	Avoid all listed in (2) below.
Butter	All.	None.
Beverage	Milk.	Cocoa, coffee, tea, alcohol.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) Below is a list of foods that contain a large or moderate amount of purins and must be avoided:

(*a*) *Meats.*

Sweetbreads.	Pike.	Goose.
Anchovies.	Perch.	Chicken.
Sardines.	Venison.	Oysters.
Liver.	Veal.	Herring.
Kidney.	Liver sausage.	Mutton.
Squab.	Codfish.	Ham.
Trout.	Beef.	Salmon.
Tongue.	Clams.	Lobster.
Carp.	Crab.	Scallops.
Turkey.	Pheasant.	Shrimp.

(*b*) *Miscellaneous.*

Cauliflower.	Cocoa.
Asparagus.	Coffee.
Peas.	Tea.
Mushrooms.	Meat gravies.
Spinach.	Meat extracts.
Lentils.	Stock soups.
Beans.	Alcohol in all forms.

c. Sample menu.

Breakfast	Dinner	Supper
Sliced pineapple.	Cheese souffle.	Cheese fondue.
Cream of wheat.	String beans.	Steamed rice.
Coddled eggs.	Creamed potatoes.	Cream.
Toast, butter.	Tomato-cabbage salad.	Summer squash.
Cream.	Bread, butter.	Apple-cabbage salad.
Postum.	Tapioca pudding.	Bread, butter.
	Milk.	Prune whip.

69. High purin diet.—The high purin diet is not a therapeutic diet. It is used, however, as an aid in the diagnosis of gout. The diet includes enough of the articles listed to be avoided under the low purin diet to total about 2½ grams daily. The total caloric and protein intake must remain approximately normal. The carbohydrate-fat ratio is not changed.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION XV

ARTHRITIS

Paragraph
Clinical types of arthritis 70
Methods of prescribing 71

70. Clinical types of arthritis.—There are many clinical types of arthritis resulting from many etiological factors. Definite benefit is obtained in some cases from diet. Diet has been tried in all forms of arthritis but it is questionable if it is of any value in some types. In general, the clinical types of arthritis considered from the standpoint of usefulness of diet are—

a. Static or traumatic.—Diet is of particular value in this type of arthritis. The reducing diet should be used (see sec. VI above).

b. Acute infectious.—It is not believed that diet is of any value in the treatment of this type of arthritis. The type of diet used for any acute infectious disease is suitable.

c. Chronic infectious.—This type of arthritis is made up of many forms. Foci of infection can usually be found in most of the cases if adequate search is made. Many of these cases are associated with other outstanding subjective symptoms or objective findings. The rationale of the role diet plays in most of these is directly dependent on these symptoms. For instance—

(1) Chronic arthritis associated with chronic constipation is benefited by the anticonstipation (A. C.) diet (see sec. IV above). In such a diet the total caloric and protein intake should approximate the normal, and carbohydrates reduced about 25 percent.

(2) Chronic arthritis associated with malnutrition and underweight will do better if given a high caloric diet. The basal requirement should be increased 100 percent. Protein should be increased about 20 percent over the normal, no change in the carbohydrates, and the remainder of total caloric intake made up of fats.

(3) Chronic arthritis associated with anemia. In this clinical form protein should be increased about 40 percent to 50 percent with a normal total caloric intake. Carbohydrates should remain normal. The principal increase in protein should be in meats that have been found useful in treating pernicious anemia such as liver, red meats, etc.

(4) In all other cases of chronic infectious arthritis, diet may be of some benefit. Explanations of how and why a diet is beneficial are unsatisfactory. Most patients improve on treatment. However, much is done for them and it is difficult to say whether any of the improvement is due to diet. Diet should continue to be a part of the routine treatment of these cases. The diet that seems to be

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

most beneficial is one that is low in total calories. The carbohydrate intake should be reduced by at least one-third.

71. Methods of prescribing.—*a.* In requesting all diets for chronic infectious arthritis it should be done as the examples below indicate. Determine first if there are outstanding associated symptoms remediable by diet, and include such information in the prescription.

(1) Arthritic, anticonstipation diet; carbohydrates, 25 grams.

(2) Arthritic diet, calories 3,100; protein, 100 grams.

(3) Arthritic anemia diet, calories, 2,600; protein, 120 grams.

(4) Arthritic diet, calories, 1,700; carbohydrates, 200 grams.

b. By writing the diet order in this manner the dietitian will have adequate information for preparation of the menu. It is necessary to mention only the elements in the diet it is desired to change. These diets are so variable and must be made according to the prescription written that a sample menu would be useless.

SECTION XVI

PERNICIOUS ANEMIA

	Paragraph
General	72
Modification of diet	73
Food selection	74
P. A. liquid diet	75
P. A. light diet	76
P. A. regular diet	77
Liver diets	78
Preparation of liver dishes	79
Ordering diets	80

72. General.—*a.* Patients suffering from pernicious anemia who require hospitalization will usually need liver extract, ventriculin, and other drugs administered as a part of their treatment. However, this does not mean that diet is not the most important single factor in treating pernicious anemia. A special diet will be needed for the critically ill, the convalescent, and for those in a stage of remission. In fact, the diet should never be given up regardless of the well-being of the patient.

b. Diet plays a major role in the treatment of secondary anemias. Iron and copper are of importance, while both liver and the B complex have a favorable action.

73. Modification of diet.—In pernicious anemia the diet should be modified approximately as follows:

a. Total caloric intake equal at least to the normal maintenance diet for the person treated.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Protein increased 50 percent above the normal diet.

c. Fats reduced 50 percent below the normal diet.

d. Give at least 200 grams (cooked weight) of freshly prepared liver (calf or beef preferred) daily.

e. Make up remainder of protein intake largely from red meats trimmed of all visible fat.

f. Avoid fried and greasy foods.

g. Give at least 300 grams each of fruits and vegetables, preferably the following, fresh, when available:

Vegetables	*Fruits*
Lettuce.	Oranges.
Spinach.	Grapefruit.
Cabbage.	Strawberries.
Tomato.	Apricots.
Asparagus.	Pineapple.
	Peaches.

74. Food selection.—*a. General.*—It can readily be seen from these requirements that many problems pertaining to the diet are going to arise. Some of the patients are very ill and cannot take a solid diet, and in others the appetite is lost and it is difficult to get them to eat sufficient food. Some of the most difficult problems are solved by the recent advances made in liver therapy, making it possible to defer eating so much liver until partial recovery at least has occurred. There are however other elements in the diet necessitating that the full pernicious anemia diet be consumed as largely as possible. It is for these reasons that the following general information is furnished. When it is desired to give the antianemic diet to patients suffering from secondary anemia, the diet used in pernicious anemia cases may be used. However, it is not necessary to insist on more than one-half the amount of liver be used and it is unnecessary to reduce drastically the fat intake.

b. Guide.

Food	Permitted	Avoid
Bread, crackers, cereals, etc.	Whole wheat bread or toast, potato, macaroni, dry or cooked cereals, rice, and plain crackers. Limit eggs, milk, cream.	Cheese. Cakes and pastries that will probably prevent patient from eating full amount of liver and other necessary articles. Hence the refined bread, crackers, and cereal should be limited.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Guide—Continued.

Food	Permitted	Avoid
Beverage	Tea, coffee, cocoa. Limit milk.	
Fruits, fresh, canned, or dried (30 grams daily).	Peaches, apricots, oranges, strawberries, grapefruit, dried figs, pineapple, blueberries, raisins, prunes, dried dates, and bananas. Restrict other carbohydrates to insure eating above fruits. Limit sugar (20 grams), pickles, relishes, salt, and vinegar.	
Meats (200 grams daily).	Liver, calf, beef, or hog; 200 grams daily. Kidneys, chicken liver. Red muscle meat of beef, lamb, or mutton. Calf or beef heart. (All meats must be trimmed of all visible fat before cooking.) Limit poultry, fish, and shellfish.	Bacon, pork, cottonseed oil, olive oil, and all meat fats and oils.
Vegetables, cooked or raw (300 grams daily).	Artichoke, beets, chard, mushrooms, peas, greens, spinach, asparagus, brussels sprouts, string beans, cabbage, tomato, lettuce, and cauliflower.	None.

75. P. A. liquid diet.—For those who are unable to take anything except liquid foods the following diet may be used. The total caloric intake is low and the patient should not be kept on it more than 3 or 4 days if it is possible to avoid it.

8:00 AM:	*cc*	10:00 AM:	*cc*
Orange juice	120	Liver pulp	30
One egg white.		Orange juice	240
Coffee	120		
Milk	60		

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

	cc
12:00 Noon:	
Liver milk soup (30 cc liver pulp).	
Spinach purée	90
2:00 PM:	
Oatmeal gruel	60
Milk	60
4:00 PM:	
Tea	120
Milk	60
6:00 PM:	
Liver pulp	30
Grapefruit juice	120
Peach purée	60
8:00 PM:	
One egg white.	
Orange juice	120
10:00 PM:	
Cream of wheat gruel	60
Milk	60

76. P. A. light diet.—*a. Use.*—This diet is useful when it is no longer necessary to keep the patient on liquids, yet it is too early to begin the regular diet for pernicious anemia. It is also useful in those cases not able to take the full diet because of a lack of appetite.

b. Sample menus.

7:00 AM:
- Oranges, 1.
- Lamb chop (average size), 1.
- Toast (whole wheat), 30 gm.
- Butter, 10 gm.
- Coffee, 120 cc.
- Milk, 30 cc.

9:00 AM:
- Scraped beef ball, 30 gm.
- Whole wheat bread, 1 slice.
- Dill pickle, 1.

12:00 Noon:
- Stuffed green peppers, calf liver, 90 gm.
- Tenderloin steak, 70 gm.
- Baked potato, 60 gm.
- Spinach, 60 gm.
- Stewed figs, 60 gm.

3:00 PM:
- Milk, 120 cc.
- Raisins, 30 gm.

6:00 PM:
- Beef bouillon, 120 cc.
- Baked stuffed potato, calf liver, 90 gm.
- Pear salad, 120 gm.

9:00 PM:
- Scraped beef ball, 40 gm.
- Whole wheat bread, 1 slice.
- Milk, 180 cc.

77. P. A. regular diet.—*a. General.*—Patients with pernicious anemia should not be kept on liquid or light diet any longer than necessary. As soon as the appetite has returned and the condition of the gastro-intestinal tract will permit, these patients should be urged to eat the regular diet for pernicious anemia cases. Only this diet insures adequate total caloric intake with the required amount of liver.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Sample menus.

	Gm		Gm
7:00 AM:		Lettuce salad	200
Stewed prunes	200	Mineral oil mayonnaise.	
Raisins	30	Sliced pears	300
Cream of wheat	120	Milk	120
Broiled kidneys	80	3:00 PM:	
Toast, whole wheat	20	Strawberries	120
Butter	10	Raisins	60
Coffee	120	6:00 PM:	
Milk	30	Broiled liver	90
9:00 AM:		Spinach	120
Scraped beef	20	Tomatoes	120
Whole wheat bread, 1 slice.		Lettuce	120
Dill pickle, 1.		Apricots	240
12:00 Noon:		9:00 PM:	
Broiled ground liver (80 gm) cocktail.		Ground liver (90 gm) in aspic jelly.	
Roast beef	90	Soda crackers, 2.	
Steamed rice	60	Milk	240

78. Liver diets.—The following information pertains to liver diets:

a. Day's ration.—A day's ration of liver should be 200 grams or about 6 ounces. One calf liver uncooked weighs from 2 to 3 pounds and will lose from 40 to 50 percent in preparation.

b. Preparation.—(1) Calf or beef liver should be sliced and broiled. Chicken livers should be steamed. Do not soak liver before broiling, and do not overcook.

(2) When cooked, remove veins and further prepare by chopping in small pieces, or mince coarsely, or mince finely and strain.

(3) Season with salt and a pinch of sugar. Moisten with gravy from roast meat, or broth from boiled meat or fowl.

(4) Additional seasonings valuable in disguising liver, especially in liver cocktails, are chop suey sauce, celery salt, onion salt, curry, worcestershire sauce, tomato purée, and chili sauce.

79. Preparation of liver dishes.—Special effort must be made to insure ingestion of the proper amount of liver. Liver may be served in many ways. Hot or cold dishes may be used. Recipes for these dishes are given in appendix II and are believed adequate for all needs in the preparation of liver dishes.

80. Ordering diets.—Diets for pernicious anemia cases are not limited to the above-mentioned. They ordinarily will be satisfactory

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

for most cases, and should be ordered by the above-named. In all other cases where these diets do not meet the requirements of the cases, they should be ordered by stating the type of diet, pernicious anemia (liquid, light, or regular) diet, and state total caloric intake desired, and the amount of fat to be used. For example, pernicious anemia, light diet; calories, 1,800; fat, 75 grams. No further information will be required by the dietitian.

SECTION XVII

ALKALINE AND ACID

Paragraph
General 81
High alkaline diet 82
High acid diet 83

81. General.—In terms of the normal solution, foods utilized by the body produce an excess base or acid balance, or result in a neutral residue. From the standpoint of the alkali-acid balance, it is important to know the foods that result in excess alkaline or acid balance. Both of these diets are useful in the treatment of certain diseases.

82. High alkaline diet.—*a. Use.*—This diet is useful in the treatment of acidosis. Its use will result in a high alkaline balance.

b. Neutral materials.—In the preparation of these menus it must be remembered that certain materials are classed as neutral foods. They are butter, cream, olive oil, vegetable fats, lard, cornstarch, sugar, tapioca.

c. Food selection.—In preparing menus for the high alkaline diet select foods from the list below. Neutral foods may also be used if desired, but not in sufficient quantity to reduce adequate intake of the high alkaline foods. If any foods from the acid balance list are used, they should be limited to the minimum, and only the low acid ones used. Such diets tend to be low in the B vitamins, hence fortification may be necessary.

Food	Permitted	Avoid
Bread, cereals, etc.	Cornstarch and tapioca.	All others.
Fruit	Almonds, apples, bananas, cherry juice, coconuts, currants, dates, figs, grape juice, grapefruit juice, lemons, oranges, peaches, pears, pineapple, pineapple juice, raisins, raspberry juice.	Prunes, plums, cranberries.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Food selection—Continued.

Food	Permitted	Avoid
Vegetables	Asparagus, brussels sprouts, beans, dried; beans, lima, fresh; cabbage, carrots, cauliflower, celery, cucumber, lettuce, mushrooms, onions, parsnips, peas, dried or fresh; potatoes, radishes, rutabagas, spinach, tomatoes, tomato juice, turnips.	Corn.
Miscellaneous	Milk, cow's; molasses, chestnuts.	----------

d. Sample menus.

Breakfast	Dinner	Supper
Baked apple. Cream. Pineapple juice. Bacon. Toast, 1 slice. Milk.	Orange juice. Creamed asparagus. Baked potato. Pineapple-lettuce salad, mayonnaise. Butter. Sliced pears. Milk.	Tomato juice. Mashed potatoes. Butter. Creamed spinach. Shredded carrot-cabbage salad, mayonnaise. Sliced peaches. Milk.

83. High acid diet.—*a. Use.*—The high acid diet is used frequently in the treatment of nephritis. It is also used in certain conditions caused by improper calcium metabolism. The high acid diet combined with the low calcium diet is of particular value in lead poisoning.

b. Neutral materials.—In preparing menus for this diet, the neutral foods must be considered. They are butter, cream, olive oil, all vegetable oils, lard, cornstarch, sugar and tapioca.

c. Food selection.—It is difficult to construct a palatable menu from acid producing foods alone. Alkaline foods are frequently used also, but care must be exercised to see that only those of low alkaline content are used. In preparing the high acid menus the following guide should be followed.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Food	Permitted	Avoid
Bread, cereals, etc.	Whole wheat bread, white bread, rye bread, oatmeal, rice, shredded wheat, farina, soda crackers, graham crackers, dry cereals.	Tapioca and cornstarch.
Fruit	Prunes, plums, cranberries. For variety some low alkaline fruits may be used. They are canned pears, lemons, watermelon, grapes, and apple sauce.	
Meat and dairy products.	Bacon, beef, lean; mutton, pork, rabbit, veal, venison, salmon, oysters, turkey, trout, chicken, eggs, cheese.	Large amounts of milk.
Vegetables	Corn. Other vegetables will be needed. They should be selected from the following low alkaline list: cabbage, celery, cucumbers, asparagus, string beans, onions, squash, radishes, rutabagas.	

c. Sample menus.

Breakfast	Dinner	Supper
Stewed prunes.	Lentil soup.	Roast veal.
Shredded wheat biscuit.	Tenderloin steak.	Steamed rice.
Eggs.	Stewed corn.	Baked squash.
Bacon.	String beans.	Asparagus salad, mayonnaise.
Toast, butter.	Shredded cabbage salad, mayonnaise.	Bread, butter.
Cream.	Bread, butter.	Fresh plums.
Coffee.	Cranberry pie.	Tea or coffee.
	Tea or coffee.	

Section XVIII

FOOD ALLERGY

Paragraph
General 84
Class I foods 85
Class II foods 86
Ordering diets 87
Supplemental foods for class I 88
Follow-up and record of case 89

84. General.—Food allergy is manifested by various clinical symptoms, some of which are difficult to recognize. It is also difficult

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

and sometimes impossible to determine the food that causes allergic reactions. So many foods are used in daily menus that it requires patience and prolonged effort on the part of patient and physician to accomplish anything. Skin tests are often useless in determination of the allergens. Most of the foods eaten do not hurt. Those that do cause reactions of one kind or another are innocently hidden among the others, and are not suspected. Because of this, it is best to start the hunt for these injurious foods by providing the patient with a very simple diet. It is important that every article that goes into every recipe is known, and that all ingredients come within the permissible list. It is known that of the long list of common foods in this country, some of them are rarely found to be the cause of food allergy. It is also known that from this same list another fairly small group represents most of the foods that cause reactions when eaten. The remainder of the long list of our foodstuffs may or may not cause allergic reactions when eaten. The complete diet list is then divided into three parts, that group of foods—

a. Seldom, if ever, causing food allergy.

b. Most frequently found to be the cause of food allergy.

c. That usually does not but may cause allergic reactions (the large group).

85. Class I foods.—It is obvious that the patient suffering from food allergy should be provided with a diet, the articles of which seldom if ever are known to be allergens. It is not possible to provide a well-balanced, palatable diet from this food list because it is so small. For purposes of identification and because they do not cause reactions, they are called class I foods.

Almonds.	Guava.	Persimmons.
Artichoke.	Flounder.	Plums.
Avocado.	Halibut.	Rabbit.
Buckwheat.	Olives.	Sago.
Cranberry.	Pepper.	Tuna fish.
Cucumber.	Hickory nuts.	Turkey.
Duck.	Loganberries.	Watermelon.
Figs.	Mushrooms.	Zuccini.

86. Class II foods.—For identification and because they are to be avoided, the foods most often found to be offenders are put into the second class and are called class II foods. Listed in order of frequency as allergens they are—

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Wheat.	Strawberries.	Lettuce.
Eggs.	Walnut.	Oysters.
Milk.	Oatmeal.	Crab.
Chocolate.	Pork.	Shrimp.
Cabbage.	Carrots.	Lobster.
Tomato.	Celery.	Peanuts.
Orange.	Salmon.	Cantaloupe.
Cauliflower.	Apples.	Navy beans.
White potato.	Grapefruit.	Grapes.
Banana.		

The remainder of the long list of foods are put into a third class and known as class III foods. Such a list is easily available and too long to include in this manual.

87. Ordering diets.—*a.* By examining foods in class I group, it is seen that it would be difficult to provide suitable diets from this list. Diets in food allergy should provide for adequate or normal intake with proper ratio between proteins, carbohydrates, and fats. Proper procedure then requires the use of as much of class I foods as possible, none of class II, and complete the menu from as few articles as possible from class III. Until proper identification of the offending foods has been made all these diets are also test diets and it is necessary that copies of the menus be kept on file. When the diet is begun it should be continued for 10 days unless allergic reactions are occurring.

b. To supplement class I another group must be selected from class III foods. As few as possible should be chosen and if the patient becomes symptom-free in the first 10 days add necessary articles for variety only from class III. Additional foods added should be one at a time and not oftener than every third day. When this stage is reached without symptoms it is time to add articles from class II, one at a time every third day. As offending foods are identified they are temporarily eliminated from the diet until the entire class II foods have been tried. When this has been done, the offending foods may be tried again in small quantities and if symptoms arise again the patient should be desensitized to the offending foods or eliminate them permanently from the diet.

c. It is not sufficient when prescribing this diet merely to order a food allergy diet. These diets are frequently used in the treatment of children and it must be remembered that this class of patient requires 2 to 3 grams or more of protein per kilogram of body weight. It is therefore necessary to specify the diet and include the total caloric intake, and number of grams of protein desired. For example, food allergy diet, calories 2,600; protein, 78 grams.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

88. Supplemental foods for class I.—The following group of class III foods used in conjunction with class I will be adequate for the first 10 days. After that, additional variety is afforded by further selection from class III as described above.

a. Bread, cereals, etc.

Corn flakes.
Rice flakes.
Corn meal mush.
Corn pone.
Tapioca.

b. Fruit.

Lemons.
Prunes.
Dates.
Apricots.
Pears.
Pineapple.

c. Vegetables.

White turnips.
Eggplant.
Corn.
Spinach.
Parsnips.
Rhubarb.
Endive.

d. Miscellaneous.

Corn oil.
Molasses.
Maple syrup.
Sugar.
Coffee.
Salt.
Gelatin.
Pecans.
Cornstarch.
Lentils.

Class I foods plus the supplemental list will assure adequate caloric intake if menus are properly prepared. In cooking, articles not in these two lists must not be used.

89. Follow-up and record of case.—*a.* When the dietitian receives the diet prescription, menus are made for the first 10 days. A copy of the menu for each day will be sent to the ward for reference and to be filed on the chart.

b. If the ward officer does not desire the diet in *a*, above continued longer, additional articles will be added from class III foods as outlined above until a fairly wide range of foods has been reached.

c. Contact will then be made with the ward officer, and if satisfactory, begin the addition of class II foods. These will be added one at a time every third day, beginning with milk, then eggs, etc. A record will be made of all foods causing reactions.

d. Below are sample menus useful in the first 10 days' treatment. Menus for later stages of treatment are readily constructed from the wider range of foods.

Breakfast	Dinner	Supper
Pineapple juice.	Chicken soup.	Lamb chops.
Fried rice.	Broiled chicken.	Hominy.
Maple syrup.	Boiled rice.	Parsnips.
Bacon.	Boiled spinach.	Endive.
Corn pone.	Corn pone.	Rice-raisin pudding.
Coffee.	Sliced pears.	Coffee.
Sugar.	Coffee.	

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Breakfast	Dinner	Supper
Stewed rhubarb.	Lentil soup.	Roast lamb.
Fried mush.	Broiled halibut.	Steamed rice.
Molasses.	Boiled white turnips.	Boiled spinach.
Bacon.	Zuccini.	Olives.
Corn pone.	Corn pone.	Sliced pineapple.
Sugar.	Stewed figs.	Sugar.
Coffee.	Sugar.	Coffee.
	Coffee.	

SECTION XIX

TUBERCULOSIS

Paragraphs
General 90
Regular diet 91
Enteric diet 92
Laryngeal diet 93

90. General.—*a.* Diet is important in the treatment of tuberculosis. When the disease is limited to the lungs and is very active the constitutional symptoms may prevent the consumption of the proper amount of food. During the acute symptoms the appetite is frequently abnormal and there is a desire for no or little food or such items that constitute a very badly balanced diet. In such cases the diet is that furnished any patient acutely ill with a fever from any cause. The diet, whether liquid or light, will usually have to be given in small feedings frequently and it may be necessary to give concentrated foods if the patient has trouble consuming sufficient calories by taking ordinary liquid or light diet.

b. After the acute symptoms have passed the appetite increases and the patient will take adequate food without coaxing. In fact, most patients have erroneously gained the idea that "stuffing" with food, a large part of which is cream and other fats, will hasten the cure of tuberculosis. Not only does this fail to produce beneficial results, but often causes gastro-intestinal upsets. After the acutely ill state has passed, dietotherapy is distinctly helpful in three manifestations of the disease and the diet suitable for one is not borne well by the other. These are cases—

(1) In which the disease is limited to the lungs and the patient is not acutely ill and the appetite assures adequate caloric intake.

(2) Of pulmonary tuberculosis in which there is involvement of the gastro-intestinal tract attended by the usual upsets, including diarrhea.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) In which there is laryngeal involvement.

c. Special diets have been advised for almost every form of tuberculosis. It is not believed that special diets are of any particular value in types of cases other than those described above.

91. Regular diet.—*a. Content.*—(1) In the first group of cases (par. 90*b*(1)), the diet should be ample in calories but should not ordinarily exceed 30-35 calories per kilo of the normal weight for adult patient. It is not believed that the ratio of distribution of protein, fats, and carbohydrates should be disturbed. It has been noted that patients consuming large amounts of fat are prone to have digestive disturbances. It should be remembered that the treatment of tuberculosis is a system of many procedures well organized and carefully executed. The forced consumption of excessive fat often not only fails to increase weight but disturbs a well-regulated regime of treatment. It should also be remembered were it possible in every case to gain weight that in many cases such weight gain is not desired.

(2) The regular diet should be so planned that it contains a liberal amount of all vitamins and minerals. This means that the diet should contain, among other items, leafy vegetables, fruit juices, and milk to assure replacement of the minerals and vitamins. Midmeal feedings are often advised but actually while in the hospital the meals are so close together that this is not required, except that milk or fruit juices should be given about 9:00 PM before retiring. In this stage there is no restriction on the items of food that may be included in the diet. Such patients, however, should be permitted tea, coffee, and tobacco in moderation and alcohol in all forms prohibited unless prescribed by the physician.

b. Sample menus.—See paragraph 195*a*.

92. Enteric diet.—*a. Content.*—In the second group of cases (par. 90 *b* (2)), an effort must be made to maintain the weight and strength of the patient and reduce or eliminate the gastro-intestinal symptoms, including the diarrhea. Often this cannot be done. So far as diet is concerned, all that can be done is to provide a diet adequate for the patient under normal conditions, and prepare this diet so there will be as little residue as possible. It is believed that vitamins C and D are beneficial in intestinal tuberculosis and the diet should be so constructed that it contains an abundance of these in addition to the usual amounts of the other vitamins.

b. Food selection.—In this diet there are certain foods that should be avoided. The following outline should be followed in preparing this diet.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Food	Permitted	Avoid
Beverages	Coffee, tea, milk	All containing alcohol. Carbonated waters. All iced drinks.
Bread	All except those containing bran.	All containing bran. Whole wheat bread. Bran muffins.
Cereal	All cooked and dry cereals, except those containing bran.	All cereals containing bran.
Cheese	Creamed cottage cheese	All others.
Dessert	Ice cream if eaten slowly; boiled custard, rice pudding, gelatin desserts with cream, junkets, sponge cake.	All containing berries.
Fat	Cream, butter, salad oil, mayonnaise, bacon.	Use in excessive amounts.
Fruit	Fruit juice, ripe bananas, cooked peaches, pears, apples, and apricots.	All coarse fruits containing fiber, seeds, and skins. All cooked, not sieved.
Meat	All meats, liver, and sweetbreads freely.	All highly seasoned meats, fried meats.
Soup	Meat broths, cream soups, vegetable purées.	All others.
Vegetables	Potatoes (except fried), purée of asparagus, peas, string beans, squash, tomatoes, turnips, eggplant, pumpkin, beets. Tomato juice freely.	Cabbage, cauliflower, brussels sprouts, coarse string beans, corn, all vegetables not puréed.
Condiments	----------	Most.

c. Sample menus.—See paragraph 195*b*.

93. Laryngeal diet.—*a. Content.*—In the third group or those cases with laryngeal involvement (par. 90*b*(3)), many of them are unable to eat sufficient food to maintain body nutrition. If this is not corrected there soon follows extensive edema of the extremities and this is soon followed by ascites, hydrothorax, etc. In such cases of malnutrition the plasma proteins are low and the diet should be one high in proteins, low in salt, and so modified in consistency that an adequate amount can be taken. When there is pain from swallowing the bulk must be reduced and the diet bland. In some severe cases tube diets may have to be used (see par. 14 for tube diets). In prescribing the high protein, salt-free diet the question arises over the amount of protein to be given. This is not definitely determined and may not be the same in all cases. A check should be kept on daily

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

loss of albumin in the urine and this amount plus 50–60 additional grams should be provided in the diet. When this diet is ordered the number of grams of protein desired should be stated.

b. Sample menus.—See paragraph 195*c*.

NOTE.—Do not add salt to food before, during, or after cooking. Use salt-free bread and butter and omit milk until edema disappears.

SECTION XX

SURGERY

	Paragraph
Preoperative diet	94
Post-operative diet	95
Gastro-enterostomy diet	96
Gastric resection diet	97
Miscellaneous cases	98
Dental diet	99

94. Preoperative diet.—*a. General.*—(1) Under ideal conditions the patient who comes to the operating table should have no food in his stomach, but he should nevertheless be in a good nutritional state, and his tissues should be adequately supplied with fluids. While such preoperative conditions cannot always be attained they should be approached as nearly as possible. The advantages gained by placing the patient in a good nutritional state preoperatively have been receiving more and more recognition in the last decade.

(2) It has long been recognized that the stomach should contain no food at the time of operation because of the danger of aspiration of the vomitus. Several lives have been needlessly lost each year from aspiration pneumonia due to neglect in making certain that the patient's stomach is free from food before the general anesthetic is given. If a patient who is in urgent need of operation has food in his stomach, it is advisable to perform gastric lavage before starting the anesthesia. It is also pointed out that the colon should be fairly empty in order that post-operative distention may be avoided. This does not mean that there should be violent purgation for several days but rather that an effectual enema be given a few hours before the operation is scheduled to begin. It is not necessary or desirable to starve the patient for several days, but rather the preoperative abstinence from food should be about 12 hours, at least longer than the emptying time of the patient's stomach.

b. Protein.—(1) Investigations on the effects of hypoproteinemia have been carried out by several investigators. These investigations have been implemented by operations on dogs performed in the condition of well-advanced hypoproteinemia. It has been noted that

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

in these animals breakdown of the wound or even evisceration occurred after laparotomy in spite of using the same painstaking operative technique that was not followed by similar difficulties in other animals. This observation led to an investigation of wound disruption in human surgery, and it was found that even with the development of modern aseptic technique and a more intelligent handling of tissues, rupture of the abdominal wounds has continued to occur in from 1 to 3 percent of all abdominal operations. Moreover, the majority of these untoward results followed operations on the upper portion of the gastro-intestinal tract and on the biliary tract.

(2) The three possible causes of deficiency of protein in surgical patients are: deficient intake or absorption of protein, excessive loss of protein, and inadequacy of the mechanism for regenerating proteins from amino acids. Deficient absorption is usually due to vomiting, diarrhea, alterations in the intestinal mucosa, or decrease in the amount of functional absorptive area of the intestine. Loss of blood plasma or body fluids often occurs in cases having extensive burns or profuse drainage from an abscess, and if extreme, may give rise to hypoproteinemia. The ability of the body to regenerate serum proteins is also important. It is believed that the liver or possibly the cells of the reticulo-endothelial system may be the site of formation of serum proteins. If so, diet therapy may well be directed toward protecting this organ, and to accomplish this a high carbohydrate containing an adequate amount of protein becomes essential. Some of the clinical manifestations of hypoproteinemia are peripheral ("nutritional") edema, pulmonary edema, disturbances in gastro-intestinal motility, and impaired wound healing. In order to increase serum proteins it may be necessary not only to prescribe a diet high in proteins and carbohydrates but to resort to transfusions of whole blood or plasma. Administration of amino acids may prove to be helpful provided the body can synthesize them into protein. It is certain, however, that an excess of one type of food with a marked deficiency of another may be very harmful. This applies especially to diets deficient in protein but providing a high carbohydrate intake.

c. Carbohydrate, fat, and calories.—(1) When an operation is not an emergency and when evidence of nutritional deficiency exists an attempt should be made to improve the nutrition of the patient prior to the operation. Diet should be high in protein and carbohydrate and low in fat. The number of calories provided should be more than the amount offered in the three-meals-a-day dietary of the average hospital. It is suggested that a proper diet is one containing 60 to

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

80 percent carbohydrate, 20 to 30 percent protein, and 5 to 10 percent fat.

(2) Carbohydrate provides energy and supplies the store of glycogen in the liver and muscles. Acidosis is less likely to occur if a high carbohydrate, low fat diet is given. Conversely, a high fat, low carbohydrate diet increases the tendency to develop acidosis under certain conditions. The starving patient lives largely on his own fat and is therefore virtually taking a high fat diet. This is another reason that starvation for several days prior to operation is undesirable.

(3) There may be circumstances where an obese patient should reduce his weight by means of a low caloric diet before operation is undertaken. But it would be desirable after sufficient weight loss to restore an ample diet for a few days preoperatively in order that the tissues may be well stocked with glycogen and other essentials at the time of operation.

d. Vitamins.—(1) The patient who is malnourished with respect to protein, carbohydrate, and fat is likely also to be deficient in vitamins. Lack of vitamin A probably has an unfavorable effect upon the epithelial tissues and may impair resistance to infection. The lack of vitamin B may introduce anorexia and lead to polyneuritis. Impaired calcium metabolism arising from vitamin D deficiency is to be avoided, especially when regeneration of bone must take place. A partial vitamin C deficiency may seriously affect the healing of surgical wounds in human beings. If shortage of this vitamin is suspected it can easily be overcome preoperatively as an aid to wound healing.

(2) Observations have been made that deficiency of prothrombin in the blood plasma may result from a lack of vitamin K, or primary hepatic injury, or from a combination of both. In jaundiced patients with normal prothrombin time vitamin K, or preferably its analogue, 2-methyl-1, 4-naphthoquinone, should be given as a prophylactic against probable deficiency. If the prothrombin time is lengthened in a jaundiced patient who requires surgery, particularly if it is above 45 seconds, an emergency need for the K analogue exists, and transfusion of blood may be necessary if active bleeding has already begun.

c. Sample menu, high carbohydrate, ample protein.—Carbohydrates, 385; protein, 99; fat, 56; calories, 2,440.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

	Grams	Household measure	Carbohydrate	Protein	Fat
Breakfast					
Cereal flakes (or equivalent)	30	¼ cup	22	3. 5	0. 7
Banana	125	1 large	26	1. 6	0. 8
Whole milk	200	1 glass	10	6	8
Bread, toasted	50	2 slices	31	6	0. 1
Butter	5	1 square, 1¼" x 1¼" x ¼".	0	0	4
Jelly or preserves	12	1 teaspoonful	7. 7	0	0
Coffee cream (19-percent)	7	2 teaspoonfuls	0. 4	0. 3	1. 5
Coffee, if desired	-----	-----	0	0	0
Sugar	13	1 tablespoonful	13	0	0
10:00 AM. Orange juice	200	1 glass	20	0	0
Dinner					
Tomato soup	140	½ cup	13. 4	2. 2	2
Soda crackers	20	3 double	13. 7	2. 1	2. 5
Rice (or potatoes)	100	½ cup	22. 5	2. 3	0. 9
Corn, canned	100	½ cup	17	3	1
Egg, poached	60	1 egg	0	6	6
Bread, white	60	2 slices	31	6	0. 1
Butter	5	1 square, 1¼" x 1¼" x ¼".	0	0	4
Fruit, mixed	150	½ cup to ⅔ cup	18	0. 4	0
Tea or coffee	-----	As desired	0	0	0
Sugar	7	2 teaspoonfuls	7	0	0
3:00 PM. Fruit juice	200	1 glass	20	0	0
Supper					
Bread	60	2 slices	31	6	0. 1
Butter	5	1 square, 1¼" x 1¼" x ¼".	0	0	4
Jelly or jam	12	1 teaspoonful	7. 7	0	0
Beef, fat removed, roasted or broiled.	115	¼ pound	0. 8	39. 3	9. 4
Peas, green, cooked	70	½ cup	10	4. 7	2. 4
Potato, white, mashed or baked.	100	1 small	25. 4	3. 1	0. 1
Pears, canned	60	1 half	18	0. 2	0
Milk, whole	200	1 glass	10	6	8
8:00 PM. Fruit juice	100	½ glass	10	0	0

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

f. Fluid.—(1) The patient who requires surgery may have become dehydrated in various ways. Vomiting, diarrhea, or loss of blood may have robbed him of fluids. In burns fluid is lost from the denuded skin. Sufficient fluid should be given to maintain the normal urinary output of about 1,500 cc daily. A surgical operation itself sometimes causes an increased loss of fluid due to various circumstances, including the operative procedures and excessive perspiration. If it becomes necessary to infuse as much as 3,000 cc of fluid, the intake of salt (27 gm) may be excessive if the entire amount is given as physiological salt solution. Under the circumstances part of the fluid may be administered as 5 or 10 percent dextrose solution.

(2) Assuming that the patient's normal daily intake of sodium chloride is 9 or 10 grams this would be supplied by the first thousand cubic centimeters. Then, if another 10 grams of salt contained in body fluids, including perspiration, is lost as a direct result of the operation, another liter of normal saline may be provided. The remainder may be given as dextrose solution.

g. Adaptation of menu to patient.—(1) The menu selected for preoperative patients varies with the disease. The patient with hyperthyroidism is usually given as much food as he will take, and this may be as much as 3,000 to 5,000 calories daily during the preoperative period. The jaundiced patient requires a high intake of carbohydrate (350 to 500 gm daily) to increase the content of glycogen in the liver and to afford protection to the hepatic parenchyma. If the patient cannot take this much by mouth, intravenous injections of 5 or 10 percent dextrose in physiological saline may be employed.

(2) In the case of peptic ulcer, operation may often be preceded by several weeks of diet therapy. A suggested diet during the first week consists wholly of a mixture of milk and cream (120 cc per hour from 7:30 AM to 9:30 PM) representing C 90, P 54, F 216, calories 2,520. The milk and cream are usually gradually replaced from week to week by bland foods until eventually a bland diet representing C 221, P 82, F 159, calories 2,643, is given. In patients with gastric retention the daily diet is largely liquid or at best semisolid. Strained cereal with cream, strained cream soup, malted milk, eggnog, ice cream, gelatin with cream and junket with cream.

h. Low residue.—If the operation is to be on the colon a nonresidue or at least a low residue diet is desirable. The aim of such a diet is to reduce the amount of material reaching the colon to a minimum. Foods used should be free not only of indigestible roughage but also of slowly digested foodstuffs. Animal experimentation has shown that

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

the residue from hard-boiled egg is much lower than that from a soft-boiled or raw egg. Among foods with least amount of residue are gelatin, sucrose, dextrose, Karo, concentrated broth, hard-boiled egg, meat, liver, rice, farina, and cottage cheese. Among those with large residues are fruits, potatoes, bread, lard, butter, Swiss cheese, soft-boiled egg, raw egg albumen, milk, and lactose. The best basis for a low residue diet is lean meat. To this may be added rice, hard-boiled eggs, sugars (except lactose), and probably small amounts of fruit juices, tea, and coffee. The diet should be given in small amounts several times a day and probably should be fairly dry. If a nonresidue diet is desired, clear broth, gelatin, strained fruit juice, tea, and coffee may be given.

i. Sample menu, low residue.

Breakfast	Dinner	Supper
Fruit juice (preferably strained). Egg, hard-boiled. Bland cereal (farina, rice flakes, etc.). Cream, sugar. Toasted white bread, small amount. Butter, small amount. Coffee, if desired. 10:00 AM. Candy, if desired.	Bouillon. Rice, boiled. Cream, small amount. Sugar, small amount. Lean beef, roasted or broiled. Gelatin, flavored with fruit juice. Tea or coffee. 3:00 PM. Strained fruit juice or broth, according to requirements.	Liver or lean meat. Rice. Cream, small amount if desired. Sugar. Tea. Gelatin dessert. 9:00 PM. Hot lemonade.

95. Post-operative diet.—Most cases that have been operated require a special diet. The type depends on the disease and nature and extent of surgery done. The post-operative diets for most surgical cases fall into two general classes as follows:

a. Routine.—Diets that are suitable to a large group of surgical cases. These are considered the routine post-operative diets. They vary from day to day.

First 48 hours (2 days).	Hot tea or hot water p. r. n., when not nauseated.
Third day (third 24 hours).	Liquid.
Fourth and fifth days (fourth and fifth 24 hours).	Soft.
Sixth day (sixth 24 hours).	Light.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Return to full or regular diet after patient has been on light diet 3 days.

b. Special.—Diets that are suitable for post-operative treatment of a single or possibly two or three surgical procedures. Many diets are required to meet the various special conditions. They are considered individually below.

96. Gastro-enterostomy diet.

First day

Hot water, 4 cc every 20 minutes if tolerated.

Second day

Hot water or tea, 6 to 10 cc every 20 minutes if tolerated.

Third day

	cc
8:00 AM. Strained broth of oatmeal, barley, or rice	60
10:00 AM. Orange juice, sweetened to taste	20
12:00 Noon. Strained broth	60
2:00 PM. Orange juice	20
4:00 PM. Strained broth	60
6:00 PM. Orange juice	20
9:00 PM. Orange juice	20

Fourth day

6:00 AM. Orange juice, sweetened to taste	30
8:00 AM. Strained broth of oatmeal, barley, rice, or peas	60
9:00 AM. Orange juice	30
11:00 AM. Orange albumin	30
3:00 PM. Orange juice	30
4:00 PM. Strained broth	60
6:00 PM. Orange juice	30
9:00 PM. Orange juice	30

Hot water 30 cc every 30 minutes if tolerated.

Fifth day

6:00 AM. Strained gruel of oatmeal, barley, or rice	60
With strained, stewed prunes, apple sauce, or apricots	30

Fifth day—Continued.

	cc
9:00 AM. Orange juice	100
12:00 Noon. Strained purée of peas, string beans, carrots, spinach, or cauliflower	60
Beef juice	20
Fruit ice	16
Butter	2
2:00 PM. Orange juice, sweetened	100
4:00 PM. Strained gruel of oatmeal, barley, or rice	60
With strained prunes, apple sauce, or apricots	30
8:00 PM. Orange juice	100

Sixth and seventh days

6:00 AM. Gruel and purée	100
9:00 AM. Orange juice, sweetened	150
12:00 Noon. Purée	100
Beef juice	30
Fruit ice	30
2:00 PM. Orange juice	100
4:00 PM. Gruel and fruit	100
6:00 PM. Orange juice	100
8:00 PM. Orange juice	100

Eighth and ninth days

Breakfast: Wheatina, farina, food of wheat, cooked and strained	200
Strained, stewed fruit	40
Hot tea	200
9:00 AM. Orange juice	120
Dinner: Baked potato, small and mealy, with square of butter and a little salt	150
Strained spinach, carrots, peas, string beans, asparagus, or cauliflower	150

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Eighth and ninth days—Continued.

	cc
Beet juice	30
Vegetables may be decreased and an equal amount of zweiback or arrowroot crackers soaked in beef juice substituted.	
Fruit juice	60
2:00 PM. Orange juice	120
Supper: Same as breakfast and add custard, junket or gelatin	100
8:00 PM. Orange juice	120

Tenth day

	cc
Same as ninth day except add—	
Breakfast: Egg, poached or soft-boiled	1
Toast, small piece	1
Dinner and supper:	
Lamb chop, chicken, or fish	small serving
Jelly or marmalade	10
Toast, small piece	1

Strain all vegetables and cereals until the 14th day. Diet for the 10th day should be continued until the 14th day when the patient will be placed on suitable diet for convalescence. If surgery was performed because of duodenal or gastric ulcer the patient should be placed on the convalescent ulcer diet.

The above diet is known as the gastro-enterostomy diet and should be ordered by this name. This diet is suitable for most post-operative gastric cases.

97. Gastric resection diet.—This diet should be continued until it is safe to place the patient on the convalescent ulcer diet. See section II, chapter 4.

First seven days

Same as first seven days gastro-enterostomy diet.

Eighth day

Breakfast: Same as gastro-enterostomy diet except give half portions.

7:30 AM.	Fruit juice	150 cc.
9:30 AM.	Eggnog	150 cc.
	Zweiback	1 piece.

Eighth day—Continued.

Dinner: Same as gastro-enterostomy cases except give half portions.

2:00 PM.	Fruit juice	150 cc.
	Zweiback	1 piece.
4:30 PM.	Supper: Same as gastro-enterostomy cases except give half portions.	
6:30 PM.	Fruit juice	150 cc.
8:30 PM.	Cocoa	150 cc.
	Toast	1 piece.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

98. Miscellaneous cases.—The following table outlines the diet suitable for most of the other surgical cases. It must be remembered that these diets should be further modified if complications are present at the time of operation or develop afterwards.

Operation	Nothing	Water	Water and tea	Liquid	Soft	Light	Regular	Low residue 4th day and until 2d stage	Low fat Soft
Colostomy, 1st stage		1		2					
Colostomy, 2d stage		1		2–3				4—	
Ileostomy		1		2–3				4—	
Breast		1			2–3		4—		
Appendectomy	1	2		3–4	5–6		7—		
Gall bladder cases	1	2		3–4					5–8
Hernia	1	2		3–4	5–6		7—		
Hemorrhoidectomy		1		2–4	5		6—		
Kidney cases	1	2		3–4	5–6		7—		
Operation on uterus, tubes and ovaries	1	2		3–4	5–6		7—		
Orthopedic cases		1		2–3	4–6		7—		
Goiter		1		2–3	4–6		7—		

NOTE.—Figures appearing under diet columns indicate the days as related to the date of the operation the patient should be on the diet. Minus sign after the figures indicates the diet is to be continued until some other diet is indicated and prescribed.

99. Dental diet.—*a. General.*—All diets heretofore listed may be prescribed for dental cases. Liquid and soft diets are suitable as served to other patients. Light, regular, and special diets may be further modified to change their consistency only if otherwise suitable. Change in consistency means merely the food will be reduced to a state so the patient without teeth can eat it. When ordering these diets the word edentulous should precede the name of the diet desired. For instance, liquid diet; soft diet; edentulous light diet; edentulous regular diet; edentulous high carbohydrate, low fat diet. When diets are ordered in this manner the food will be prepared so the edentulous patient can eat it.

b. Extractions and fractures.—Extensive dental extractions of the maxilla or mandible require special consideration. The following diet will meet these conditions. The patient usually remains on this diet about a week or 10 days, or until the case is completed or changed by the dental officer in charge of the case. When the change is made, the patient can be returned to one of the diets mentioned in this manual, especially if the diet is further modified by changing the

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

consistency so that it is suitable for the edentulous patient. Below is the diet for extensive dental fractures and extractions.

7:00 AM: Fruit juice (albuminized orange juice), cereal gruel, thin with beaten egg. Coffee.
9:00 AM: Albuminized orange juice.
11:00 AM: Cream soup or strained vegetable soup, purée vegetable; thin with beaten egg added, soft custard, or ice cream. Coffee, tea or milk.
1:00 PM: Eggnog or albuminized orange juice.
3:00 PM: Fruit juice.
5:00 PM: Cereal gruel with beaten egg. Purée vegetable. Gelatin desert or soft custard.
7:00 PM: Cream soup or strained vegetable soup.
9:00 PM: Albuminized orange juice.

Each feeding to be followed by rinsing the mouth with 1–1,000 solution of potassium permanganate.

SECTION XXI

CHILDREN

Paragraph
General requirements 100
Ordering diet 101
Food selection 102
Infant feeding 103

100. General requirements.—Diets for children require special consideration due to the fact that they may require less total calories and a higher protein intake than the adult. Each of these diets may be considered a special, and unless there are definite contraindications the following general guide will be followed in the preparation of menus for these diets. These diets pertain to those between 2 and 15 years of age, and will—

a. Provide at least 3 grams of protein per kilo of body weight.
b. Provide 80 calories per kilo of body weight.
c. Carbohydrate-fat ratio remain unchanged.
d. Give at least 1 quart of milk daily.
e. Give at least one egg daily.
f. Give at least 4 ounces of orange juice daily.
g. Give liver once a week.
h. Give whole wheat bread once daily.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

101. Ordering diet.—When ordering these diets state as follows: child diet, weight, 30 pounds. The weight given should be the normal weight for sex and age, rather than the actual weight. Based upon this information and upon the above principles in preparation of diets, the dietitian will prepare suitable menus without further information. If the patient's condition prevents the use of certain foods the diet may be further modified by using proper terms outlined in this chapter, for example: child, low fat, high carbohydrate diet; weight, 60 pounds.

102. Food selection.—*a.* Most foods used by adults may be eaten by children if properly prepared. Menus will be prepared from the following:

a. Bread, cereals, crackers.—All.

b. Beverages.—Milk, cocoa, eggnog, malted milk, and ovaltine.

c. Cereals.—All.

d. Eggs.—Any form except freid.

e. Dessert.—Ice cream, plain cakes, puddings, cookies, and gelatin. Avoid pastry.

f. Fruit.—All full ripe fresh, canned or cooked.

g. Meats and meat substitutes.—All.

h. Vegetables.—All, if well cooked and not too highly seasoned.

Avoid condiments, excessive sweets, fried foods, pastry, tea, and coffee.

i. Sample menus.

Breakfast	Dinner	Supper
Orange juice. Cream of wheat. Egg. Whole wheat toast, butter. Milk. 10:00 AM. Malted milk, graham cracker.	Cream soup. Baked potato, stuffed with baked liver. Mashed string beans. Bread, butter. Apple sauce. Milk. 3:00 PM. Albuminized orange juice.	Small scraped beef patty. Apple-lettuce salad. Bread, butter. Ice cream. Milk.

103. Infant feeding.—It is not intended to include instructions for feeding infants in this manual. This would require too much space. There are, however, certain data that are useful as a general guide. Some infants do well on any one of several diets and others require changing from one food to another and repeated modifications

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

before a suitable diet can be found. Breast feeding for the first 6 or 7 months is to be encouraged, but when artificial feeding must be substituted, the following general information is furnished as a guide:

a. Formulas.—With instructions for preparation, formulas will be furnished by the medical officer in charge of case.

b. Feedings.—Feedings are given every 4 hours for five or six feedings to normal infants for 6 months and the second 6 months every 4 hours for four feedings.

c. Calories.—The number of calories is based on 120 calories per kilo of the normal body weight for age and sex up to 1 year of age.

d. Amount given at each feeding.—First 6 months, ounces equal to age of infant in months plus 2. Second 6 months, total amount 1,000 cc.

e. Additional articles (milk feedings as outlined above).

Birth to 3 months:

Orange or tomato juice, ½ teaspoonful increased gradually to ½ ounce. Dilute at first.

Cod liver oil, ½ teaspoonful increased gradually to 1 teaspoonful.

4 to 6 months (with 10:00 AM feeding):

Increase orange or tomato juice to 1 ounce and cod liver oil to 2 teaspoonfuls.

Cream of wheat or farina, 2 tablespoonfuls.

6 to 7 months (with 2:00 PM feeding):

Orange or tomato juice, 1 ounce.

Cod liver oil, 3 teaspoonfuls, strained vegetables, (peas, string beans, spinach, carrots, beets), 2 teaspoonfuls.

8 to 12 months:

Continue above.

Add zweiback or toast with 2:00 PM feeding.

Add mashed potato with 6:00 PM feeding.

Use whole milk at 10 months of age.

12 to 18 months (100 calories per kilo):

Continue above diets. Add small servings of bacon, scraped beef, chicken, and mashed potato. Give one egg daily as custard.

Give apple sauce once daily.

18 months to 2 years (90 calories per kilo):

Continue above. Large quantities if desired. Add cooked fruit once daily.

f. Nutritional value table.—When artificial feeding becomes necessary a table of nutritional value of the various common foods used in

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

infant feeding is desirable. For this reason the following values are given:*

Article	Grams	Protein	Carbohydrates	Fats
Whole milk	100	3	5	4
Skimmed milk	100	3	5	1
Condensed milk (plain)	100	10	11	9
Condensed milk (sweet)	100	9	54	8
S. M. A. powder	100	10	59	28
Dryco powder	100	32	46	12
Klim powder	100	27	38	28
Dextri-Maltose	100	0	95	0
Karo syrup	100	0	85	0
Cream of wheat (dry)	100	12	74	1
Farina (dry)	100	11	76	1
Oatmeal (dry)	100	17	66	7

*Part of table from Diet Manual, St. Mary's Hospital, Rochester, Minn., 1934.

SECTION XXII

CHRONIC LEAD POISONING

Paragraph
Prescription 104
Deleading 105

104. Prescription.—*a.* If there are acute symptoms such as colic, acute encephalopathy, prescribe—

(1) High calcium diet, 1 quart of milk and 3 grams calcium lactate per day.

(2) Atropine sulphate, if colic is severe. May have to follow with cathartics.

b. Two days of this treatment are usually sufficient to quiet acute symptoms.

105. Deleading.—The process of deleading is commenced only after the acute symptoms have entirely subsided. This is done as follows:

a. Phosphoric acid treatment: Low calcium diet (omit milk, eggs, green vegetables, and fruit). Phosphoric acid in dilution until the strength of lemonade. Give 2 cc of this strength every hour in a glass of water ten times a day.

b. Ammonium chloride treatment: 1 gram of ammonium chloride every hour for 10 hours throughout the day. Low calcium diet.

c. Saline cathartics to aid in elimination and counteract the associated obstipation. Sodium phosphate, 15 cc every morning.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

d. Diet should be low in carbohydrates and high in fats. Ketogenic proportion to antiketogenic values should be greater than 1.5 to 1.

e. Acidosis, suggested by loss of appetite, headache, and general malaise should be checked by blood CO_2. Blood CO_2 and urine tested for lead once weekly. (Save 24-hour specimens of urine.)

f. In cases where there is definite nephritis, and even after 3 weeks of the above treatment with the patient losing weight, change back to a balanced diet, though low in calcium, and give 4 grams sodium bicarbonate every hour for 10 hours throughout the day.

g. The last traces of lead elimination are very difficult. Therefore, after the above regime it is probably more practical to favor retention in the bones by maintenance on a high calcium diet and general systemic stimulants.

SECTION XXIII

ADDISON'S DISEASE

	Paragraph
Low potassium diet	106
Classification of vegetables and fruits according to potassium content	107
Potassium content of foods	108
Construction of 2-gram potassium intake diet	109
Classification of cereals according to potassium content	110
Directions for special cooking of vegetables, meat, and fish	111
Directions for preparation of browned flour, special gravy, and beverage	112
Special materials	113
Special precautions required to avoid unwitting addition of potassium	114

106. Low potassium diet.—*a.* There are a few diseases in which a low potassium diet is a very important part of the treatment. Probably the most outstanding one is Addison's disease. With eschatin or a synthetic substitute, sodium chloride, and a low potassium diet, most cases of Addison's disease can be controlled and made comfortable. The preparation of a low potassium diet is not an easy task and requires considerable attention to detail and accuracy. In preparing a diet low in potassium it will be noted that most proteins are rather high in potassium, yet patients in most cases requiring this diet are thin from a certain amount of wasting and need the protein. If the potassium for the daily menu must be kept down to a certain figure, it is then important that those planning and preparing the diet know the potassium content of every item of food in the menu. It is just as important to know the potassium content of every item in the menu for a low potassium diet as it is to know the sugar content in a diabetic diet. It is therefore necessary to select the proper items, weigh them, and properly prepare those which require extraction of

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

the potassium. Failure to do this and not carry out the procedures in detail will result in a diet far too high in potassium content.

b. In order to get a well-balanced diet and one that is palatable and will be eaten by the patient, many items of food will have to be specially prepared in order to rid them of most of the potassium. Research work and clinical investigation have been done on a sufficiently large group of foods so an attractive menu may be prepared by resorting to—

(1) Careful selection of items.

(2) Proper preparation of those items that contain considerable potassium so that the total intake of this mineral will not exceed 2 grams daily (see par. 109). In preparation of foods the water in which vegetables are cooked is discarded, hence careful consideration must be given to the vitamin and mineral content of the diets.

c. Through courtesy of Sister Mary Victor, B. S., Fellow in Nutrition, Mayo Foundation, tables classifying fruits and vegetables, potassium content of common food items, substitute foods, detailed instructions for preparation, and some recipes are given in paragraphs below.

107. Classification of vegetables and fruits according to potassium content.—*a. Vegetables.*—Fresh vegetables may be consumed raw or after being cooked in the ordinary manner.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(Expressed in milligrams per 100 grams)

	Group I Range, 50–100; average, 75	*Group II* Range, 100–150; average, 125	*Group III* Range, 150–250; average, 200	*Group IV* Range, 250–350; average, 300	*Group V* Range, 350–450; average, 400	*Group VI* Range, 450–550; average, 500
Fresh			Artichoke. Asparagus. Corn. Cucumbers. Eggplant. Green peppers. Hominy. Leeks. Onions. Onions, spring. Radishes. Summer squash.	Cabbage. Cabbage, red. Carrots. Cauliflower. Celery. Chard, Swiss. Lettuce. Peas. Pumpkins. Romaine. Rutabaga. Squash, Hubbard. String beans. Tomato. Turnips. Turnip tops. Water cress.	Beets. Brussels sprouts. Endive. Kohlrabi. Mushrooms. Parsnips. Potatoes, sweet.	Dandelion greens. Potatoes. Spinach.
Specially cooked	Asparagus. Carrots. Corn (in parchment paper). Onions. Pumpkin. Rutabaga. Squash, Hubbard. Turnips.	Cabbage. Cauliflower. Kohlrabi. Parsnips. Peas. Potatoes. String beans. Tomatoes (in parchment paper).	Beets (in parchment paper). Brussels sprouts. Spinach.			

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

(Expressed in milligrams per 100 gr ams)

	Group I Range, 50–100; average, 75	*Group II* Range, 100–150; average, 125	*Group III* Range, 150–250; average, 200	*Group IV* Range, 250–350; average, 300	*Group V* Range, 350–450; average, 400	*Group VI* Range, 450–550; average, 500
Canned	String beans. Wax beans.	Peas.	Asparagus. Corn. Tomatoes. Spinach.			

b. Fruits.—Fresh fruit may be consumed raw or after being cooked in the ordinary manner.

(Expressed in milligrams per 100 grams)

	Group I Range, 50–100; average, 75	*Group II* Range 100–150; average, 125	*Group III* Range, 150–250; average, 200	*Group IV* Range, 250–350; average, 300	*Group V* Range, 350–450; average, 400
Fresh	Blueberries. Cranberries. Huckleberries. Pomegranate. Watermelon.	Apples. Lemons. Lemon juice. Pears. Strawberries. Tangerines.	Cherries. Blackberries. Gooseberries. Grapefruit. Grapes, black. Oranges. Orange juice. Peaches. Plums, red. Quinces. Raspberries.	Apricots. Cantaloupe. Currants, red. Currants, white. Figs, green. Loganberries. Mulberries. Nectarines. Persimmons. Pineapple. Plums, green gage.	Avocado pear. Banana. Currants, black. Limes. Rhubarb.
Canned	Pears.	Peaches. Pineapple. Raspberries.	Apricots. Grapefruit.		

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

108. Potassium content of foods.

Name	Average potassium content of 100 grams	Name	Average potassium content of 100 grams
Vegetables in—	*Mg*	Bread and cereal products— Continued.	*Mg*
Group I	75	Oatmeal, dry	339
Group II	125	Puffed wheat	117
Group III	200	Rice, polished, dry	68
Group IV	300	Rice, brown, dry	561
Group V	400	Tapioca	39
Group VI	500	Wheat bran	1, 217
Fruits in—		Fats:	
Group I	75	Bacon, fat, raw	160
Group II	125	Butter	9
Group III	200	Margarine	48
Group IV	300	Mayonnaise	7
Group V	400	Dairy products:	
Fruits, dried (all kinds)	888	Cheese	187
Dried beans	1, 201	Cheese, cottage	177
Potato chips	918	Cream	126
Meats and fish:		Eggs	141
Meat, raw (all kinds)	372	Ice cream, commercial	169
Fish, raw (all kinds)	323	Milk, butter	151
Anchovy	152	Milk, whole	150
Caviar	422	Concentrated sweets:	
Clams, round	131	Honey	386
Clams, soft, long	212	Jelly made with fruit juice	126
Cod, dried and salted	31	Maple syrup	208
Crab, cooked or canned	260	Molasses	1, 349
Lobster, cooked or canned	258	Sugar, white	4
Oysters, large, raw	145	Sugar, brown	265
Oysters, small, raw	47	Candy, pure sugar	4
Salmon, canned	320	Beverages:	
Shrimp, canned	122	Apple cider	95
Sardines, canned in oil	433	Grape juice	106
Meat extracts	4, 160	White wines	56
Bread and cereal products:		Red wines	75
Bread, white	108	Sweet wines	134
Bread, whole wheat	208	Malaga	165
Bread, rye	151	Sherry	186
Cornflakes	132	Bordeaux	83
Cornmeal	213	Champagne	114
Cream of wheat, dry	106	Beer	72
Farina	120	Tea, dried leaves	1, 689
Flour, white	115	Coffee, roasted bean	1, 651
Grapenuts	342	Postum	3, 238
Macaroni, dry	130		

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Potassium content of foods—Continued.

Name	Average potassium content of 100 grams	Name	Average potassium content of 100 grams
	Mg		*Mg*
Beverages—Continued.		Miscellaneous:	
Kaffee hag, roasted bean	1, 647	Agar	127
Tea, beverage	20–40	Baking powders, tartrate	9–12, 000
Coffee, beverage	70–150	Baking powders, phosphate	0
Condiments, etc.:		Baking powders, aluminum	0
Citron, preserved	17	Cocoa	940
Horseradish	445	Cream of tartar	20, 720
Mustard	761	Gelatin	0
Olives, green	61	Nuts (all kinds)	577
Olives, ripe	3		
Paprika	2, 075		
Pepper, black	1, 140		
Vinegar, cider	165		
Coconut, dried	544		

109. Construction of 2-gram potassium intake diet.—Careful measuring of all food is necessary.

a. Sample menu.

Food or permitted substitute (see *d* below)	Grams	Amount
Breakfast		
Fruit from group II, preferably raw (see pars. 107*b* and 108 for choice of fruit).	100	1 average size serving.
Cereal from group I	15	1 average size serving.
Egg	50	1.
Bacon	10	2 small strips.
Bread, white (may be toasted)	30	1 slice.
Butter	10	1 square.
Cream	90	½ cup, scant.
Dinner		
Meat, specially cooked	75	1 fairly large serving.
Potato, specially cooked	100	1 serving (½ cup).
Vegetable from group I	100	1 serving (½ cup).
Bread, white	30	1 slice.
Butter	20	2 squares.
Fruit from group II	100	1 serving (½ cup).
Cream	30	2 tablespoons.
Milk	200	1 glass.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

a. Sample menu—Continued.

Food or permitted substitute (see *d* below)	Grams	Amount
Supper		
Egg	50	1.
Rice, dry weight	25	1 serving (cooked, ½ cup).
Vegetable from group IV	100	1 serving.
Mayonnaise	15	1 tablespoon.
Bread, white	30	1 slice.
Butter	20	2 squares.
Fruit from group II	100	1 serving (½ cup).
Cream	30	2 tablespoons.
Cheese	20	1 cubic inch.

b. Allowances and additions.—(1) One cup of weak coffee and two cups of weak tea are allowed daily. Carbonated beverages, either sweetened or unsweetened, may be added as desired.

(2) The menu as written with coffee cream provides 2,700 calories and 70 grams of protein. The allowance of butter and mayonnaise should be increased as much as necessary to maintain weight or to promote a gain in weight. Whipping cream should replace coffee cream if more calories are needed. Sugar and pure sugar candies should be added if desired and should be added in generous quantities if more calories are needed.

(3) Salt may be used for seasoning as desired. Pepper and vinegar are allowed in moderation. Ripe olives, gelatins, and specially prepared gravy may be added as desired. The content of potassium in these foods is very low. This diet may be deficient in B vitamins, therefore it should be supplemented by administration of a vitamin concentrate.

c. Unpermitted food.—Foods to be strictly avoided because of high content of potassium include—

Soups and broths containing meat stock or meat extracts.
Gravies, except those specially prepared.
Catsup, chili sauce, and mustard.
Dried fruits such as dried apples, prunes, dates, figs, raisins, etc.
Dried vegetables such as beans and peas.
Nuts and peanut butter.
Molasses.
Caviar.
Fruit juices except those listed.
Chocolate and cocoa in the form of beverage or candy.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Fruit drinks except those specially prepared.
Postum. Bran. Tartrate baking powders.
Spinach except specially cooked or canned.

d. Permitted substitutes.—One of the following foods in the quantity stated may be substituted for foods named.

(1) *Fruit in group III, 100 gm* (one average size serving, about ½ cup) (gm approximate measure):

	Gm	Cup
(*a*) Fruit from—		
Group I	265	1⅓
Group II	160	¾
Group IV	65	⅓
Group V	50	¼
(*b*) Vegetable from—		
Group I	265	1⅓
Group II	160	¾
Group III	100	½
Group IV	65	⅓
Group V	50	¼

(2) *Specially cooked potato, 100 gm* (one average size serving, about ½ cup):

	Gm	Cup
(*a*) Vegetable from—		
Group I	165	¾
Group II	100	½
Group III	65	⅓
Group IV	40	¼, scant
(*b*) Fruit from—		
Group I	165	¾
Group II	100	½
Group III	65	⅓
Group IV	40	¼
Group V	30	⅛

(3) *Vegetables in group I, 100 gm:*

	Gm	Cup
(*a*) Vegetable from—		
Group II	60	¼
Group III	40	¼, scant
(*b*) Fruit from—		
Group I	100	½
Group II	60	¼
Group III	40	¼, scant

(4) *Fruit in group II, 100 gm:*

	Gm	Cup
(*a*) Fruit from—		
Group I	165	¾
Group III	65	⅓
Group IV	40	¼, scant
Group V	30	⅛

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(4) *Fruit in group II, 100 gm*—Continued.

(b) Vegetable from—	Gm	Cup
Group I	165	¾
Group II	100	½
Group III	65	⅓
Group IV	40	¼, scant

(5) *Vegetables in group IV, 100 gm:*

(a) Vegetable from—	Gm	Cup
Group I	400	2
Group II	240	1¼
Group III	150	¾, scant
Group V	75	⅓
(b) Fruit from—		
Group I	400	2
Group II	240	1¼
Group III	150	¾
Group IV	100	½
Group V	75	⅓

(6) *One egg:*

	Gm	
Canned crab (specially cooked)	50	1 average serving.
Canned shrimp	60	1 average serving.
Canned salmon	25	1 rounded tablespoon.
Sardines, canned in oil	15	1 sardine, 3 inches long.
Fish (cooked in ordinary manner)	25	1 small serving.
Oysters, large	50	3 or 4.
Meat (specially cooked)	75	1 fairly large serving.
Cheese	40	2 cubic inches.
Cottage cheese	40	¼ cup.
Milk	50	¼ glass.

(7) *Specially cooked meat.*—One egg is equivalent in content of potassium to 75 grams (one serving) of specially cooked meat. Therefore, any one of the egg substitutes may be taken in place of the meat.

(8) *Milk.*—(*a*) Cream sauce for vegetables and meat may be taken providing an equal portion of milk is omitted.

(*b*) Cream vegetable soup may be taken providing equal portions of milk and vegetable are omitted.

(*c*) Ice cream (vanilla flavor) may be taken providing an equal portion of milk or cream is omitted.

(9) *Potato either baked or cooked in ordinary manner.*—(*a*) One hundred grams (one medium size) potato may be taken providing the following are omitted from the day's food allowance:

1. Two hundred grams (one glass) milk, one egg, and 100 grams (one serving) of specially cooked potato.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

2. One hundred grams (one serving) vegetable from group IV, one egg, and 100 grams (one serving) of specially cooked potato.

(*b*) Fifty grams (½ medium size) potato may be taken providing the following are omitted from the day's food allowance: 100 grams (½ glass) milk and 100 grams (one serving) specially cooked potato.

(*c*) Fifteen grams potato chips (10 pieces) may be taken providing 100 grams (one serving) of specially cooked potato are omitted from the day's food allowance.

(10) *Meat and fish cooked in ordinary manner.*—(*a*) One hundred grams (one large serving) meat or fish, broiled, baked, fried, or roasted, may be taken providing the following are omitted from the day's food allowance: 200 grams (one glass) milk and 75 grams (one serving) of specially cooked meat.

(*b*) Fifty grams (one medium size serving) meat or fish, broiled, baked, fried, or roasted, may be taken providing the following are omitted from the day's food allowance: 100 grams (½ glass) milk and 75 grams (one serving) specially cooked meat.

(11) *Cereals and breadstuffs.*—(*a*) One serving of cereal from group II may be used in place of a cereal from group I, providing one slice of bread is omitted.

(*b*) In place of 100 grams (½ cup) cooked rice, 15 grams (½ slice) white bread may be used.

(*c*) In place of 30 grams (one slice) bread, three soda crackers may be used.

(*d*) In place of 30 grams (one slice) white bread, one of the following may be used:

	Gm	*Cup*
Macaroni, cooked	100	½
Spaghetti, cooked	100	½
Noodles, cooked	100	½

110. Classification of cereals according to potassium content.

Group I	*Group II*
Farina.	Cornflakes.
Cream of wheat.	Oatmeal.
Food of wheat.	Grapenuts.
Puffed wheat.	Maltex.
Puffed rice.	Malt-o-meal.
Rice krispies.	Pettijohns.

111. Directions for special cooking of vegetables, meat, and fish.—*a. Vegetables.*—(1) *General.*—Vegetables, like potatoes, turnips,

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

rutabagas, etc., should be peeled and cut into small thin pieces about ¾ inch square and ⅛ inch thick. Cabbage, spinach, and other leaf vegetables should be shredded. Cauliflower should be broken into flowerets and the flowerets partially quartered; that is, split crosswise at the bud end. Brussels sprouts likewise should be partially quartered. String beans and asparagus should be cut into ½-inch pieces. Peas are left whole. For cooking use a deep, narrow kettle rather than one that is wide and shallow. After being prepared, the vegetables should be plunged into boiling, salted water. Use 1½ teaspoon of salt for each quart of water. Cook gently as too vigorous boiling may cause the vegetable to break into pieces. The proportion of water to vegetable as well as the approximate length of cooking are given in the table in (3) below. It is impossible to give the exact time for cooking any one vegetable. The length of the cooking period will vary with each vegetable. Test for tenderness by piercing with a fork. After the vegetable is tender, drain and gently heat over flame until dry. Season with salt and with butter, cream, or cream sauce.

(2) *Parchment paper method.*—When cooking corn, beets, and tomatoes (either the raw, cooked or canned produce may be used), tie in moistened parchment paper, immerse in boiling water, and cook for length of time specified in the table. Discard the cooking water. The vegetable after being removed from the parchment paper bag should be seasoned with butter and salt and served hot.

(3) *Table for special cooking.*—Table prepared for one cup of vegetable.

Vegetable	Water (cups)	Time (minutes)	How cooked
Asparagus	8	10	Uncovered.
Cabbage	8	10	Do.
Cauliflower	8	10	Do.
Spinach	8	10	Do.
Brussels sprouts	8	10	Do.
Broccoli	8	10	Do.
Onions	6	30–40	Do.
Peas	6	20–30	Do.
String beans	8	20–35	Covered.
Carrots	6	25 (young)	Do.
		30–40 (old)	Do.
Kohlrabi	6	30–40	Do.
Turnips	6	25–30	Do.
Parsnips	6	25–30	Do.
Rutabagas	6	25–30	Do.
Potato	6	15–25	Do.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Table for special cooking*—Continued.

Vegetable	Water (cups)	Time (minutes)	How cooked
Squash	6	20–30	Covered.
Pumpkin	6	20–30	Do.
Beets	6	40	In parchment paper.
Corn	6	30	Do.
Tomatoes	6	30	Do.

b. Meat.—The less tender cuts of meat may be used for this purpose but the selection need not be limited to these. Sear the meat, cut into small pieces about ½ inch square and ¼ inch thick. Transfer meat to a sheet of moistened parchment paper. Tie paper with white string into the form of a bag and immerse the bag in boiling, salted water, using the proportion of 1 part of meat and 8 parts of water. Example: for ½ cup of cubed meat, use 4 cups or 1 quart of water; for each quart of water use 2 teaspoons of salt. Simmer (cook just below the boiling point) for 2 hours. The bag containing the meat must be kept under water during the entire cooking period. Evaporation of water can be prevented to a large extent by using a covered kettle, but in case of evaporation the water should be replaced. At the end of 2 hours remove the bag from the water, cut the string, and empty contents into a convenient utensil. The juice surrounding the meat should be used with it. In meat and fish cooked according to this method the reduction of potassium averages 75 percent.

c. Fish.—For special cooking of fish follow the directions given for meat. Canned fish may be treated in the same way, but need not be cooked longer than 1 hour.

d. Suggested methods for serving specially cooked meat and fish.—One or two drops of worcestershire or A-1 sauce may be added to the meat before serving. Larger amounts of meat sauce must not be used.

Creamed.
Scalloped.
Salads.
Sandwiches.
Meat pies.
Stews.
Omelets.
With rice, macaroni, noodles or spaghetti.

112. Directions for preparation of browned flour, special gravy, and beverage.—*a. Browned flour.*—Spread flour in a thin layer on a flat surface. Bake in a hot oven, stirring occasionally

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

until browned evenly throughout. This may be made in quantity and used as needed for special gravy. The color may be light or dark as preferred. The thickening power will vary accordingly.

b. Special gravy.

Water, boiling, 1 cup.
Browned flour, 3 tablespoons.
Fat (bacon fat, butter, or butter substitute), 2 tablespoons.
Salt, ½ to 1 teaspoon.
Bay leaf, if desired.
Cloves, if desired.

Mix the flour with ¼ cup cold water to form a smooth paste. Add gradually to the hot water, stirring and cooking until the sauce is thickened and the starch is cooked. Add the fat and seasonings and cook 1 minute longer. Strain before serving.

c. Beverage.—One quart will provide the amounts of sodium and chloride usually prescribed in the treatment of Addison's disease.

Concentrated fruit beverages, 3 ounces, ½ cup (see *c* below).
Sodium chloride (table salt), 10 grams, 2 teaspoons.
Sodium citrate, 5 grams, 1 teaspoon.
Water to make 1 quart.
Serve ice cold.

113. Special materials.—*a.* Standard measuring cups and standard measuring spoons (may be purchased at any hardware retail store).

b. A satisfactory concentrate of vitamin B complex is Abbott's vitamin B capsule. One capsule is reputed to contain 150 International units (200 Sherman units) of B_1, and 40 Sherman units of B_2. Therefore one capsule taken daily ought to suffice for the supplementary purpose intended. Analysis indicates a potassium content not exceeding 10 milligrams per capsule. Other concentrates of vitamin B complex are found to be higher in their content of potassium. Some of them contain so much potassium that their use will defeat the purpose of the diet.

c. The fruit beverage called for in the preparation of the salt drink is Ariston Bever-Ade. The content of potassium in this fruit beverage is very low.

d. The parchment paper called for in the special cooking of vegetables and meats is the 25-pound weight vegetable parchment. It is important to secure the 25-pound weight, because the parchment paper more generally on the market, called patapar, is heavier and unsatisfactory.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

114. Special precautions required to avoid unwitting addition of potassium.—The patient must not be given food or food accessories other than those listed on the diet and substitutions other than those listed should not be made, unless it is known that their potassium content does not exceed the potassium content of the food for which they are to be substituted. The medical officer must beware in prescribing medications for habitual use unless he has reliable information about their potassium content. For instance, liver extract may be indicated to treat the anemia which so frequently appears as a complication of Addison's disease. Analysis indicates that Lederle's concentrated solution of liver extract in 1-cc ampules contains only 1 mg of potassium per ampule. Other extracts of liver, however, may contain larger amounts. The content of potassium in "Cupron" is very low, 0.4 mg per capsule.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

CHAPTER 4

INSTRUCTION PAMPHLET DATA FOR PATIENTS

Paragraphs

SECTION I. Purpose of pamphlets 115–116
II. Convalescent ulcer 117–128
III. Dietary instructions for various cases 129–136
IV. Diabetes mellitus 137–163
V. Test diets 164–168

SECTION I

PURPOSE OF PAMPHLETS

Paragraph

Necessity for written instruction to patients 115
Method 116

115. Necessity for written instruction to patients.—After a patient has been carefully studied at a hospital or clinic, and it has been determined that dietary measures should be instituted as a part of the treatment after leaving the hospital, it is necessary that written instructions be furnished. Many dietary procedures are required only when in the hospital and in such cases the problem is simplified and written data for the patient are not required. Too often, medical officers rely on oral instructions to patients, who become confused and are unable to remember details sufficiently to tell those responsible for the preparation of their food. Instruction data to patients should not only cover what food is permitted, but the manner of its preparation and general information regarding exercise, management of constipation, use of drugs, or any other data pertinent to the disease being treated.

116. Method.—The best method of assuring adequate written instruction to the patient is the preparation of pamphlets for those diseases which will require continuation of dietary measures after discharge from hospital. These pamphlets will save much of the medical officer's time and insure better cooperation on the part of the patient. Because of this the material for the pamphlets on the most common and important diseases is outlined in the sections below.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION II

CONVALESCENT ULCER

Paragraph
General 117
Suggestions for meals 118
Post-hospitalization diet 119
Beverages 120
Milk products, cheese, and gruels 121
Custards 122
Cereals 123
Soups 124
Vegetables 125
Meat, poultry, and fish 126
Desserts 127
White sauce 128

117. General.—*a. Purpose.*—These instructions include recipes and cooking instructions, and are prepared to answer various inquiries and to serve as a guide in the dietetic management of gastric and duodenal ulcers. The proper diet and preparation of food, eaten in proper manner and amount, is a prime requisite for the future improvement and health of ulcer-bearing patients.

b. Instructions.—(1) Avoid undue nervous or physical strain.

(2) Tobacco should be avoided.

(3) Eat slowly and avoid overeating.

(4) Drink a glass of milk between 10:00 and 11:00 AM, between 4:00 and 5:00 PM, and at bedtime.

(5) Avoid constipation. If continually constipated consult your medical officer.

(6) Keep the teeth in a healthy condition.

(7) Do not become unduly finicky about food or abdominal condition, real or imaginary, if eating and living in a normal manner. This rule applies particularly to patients upon whom an operation has been performed.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

118. Suggestions for meals.—Consult recipes for substitutes.

Breakfast (7:00 or 8:00 AM)	*Dinner* (12:00 Noon)	*Supper* (6:00 PM)
Stewed prunes without the skins, or sweet orange juice, or apple sauce. Six ounces cream of wheat or farina. One teaspoonful of sugar. One piece zweiback or dry toast. One soft-cooked egg. Postum, or cupful of equal parts hot water and cream. Two ounces of orange juice.	Cream vegetable soup or purée. Baked potato; scraped beef balls. One square fresh butter. Dish of well-cooked vegetable put through sieve. Slice toast. Cup of custard. One glass of milk. Two ounces of orange juice.	Cream soup. Creamed rice or cereal. Poached egg on toast, or cottage cheese. A serving puréed vegetables. Baked apple without skin, with cream and sugar.
10:00 AM. Glass of milk or malted milk.	4:00 PM. Glass of milk or malted milk.	Bedtime. Glass of milk. Two ounces orange juice.

119. Post-hospitalization diet.—*a. General.*—The principles underlying this diet are the selection of foods that do not cause chemical, mechanical, or thermal irritation to the stomach. Such foods should be easily digested, nourishing, and in a finely divided state. Foods and liquids should not be eaten too hot or too cold. The diet should be made up of such articles as fresh milk and cream, cooked cereals, cream soups, or vegetable purée, cooked fruits and vegetables without skins and seeds, custard, simple puddings, fresh soft-boiled eggs, toast made from stale bread, fresh butter, gelatin, plain ice cream, and scraped beef balls. Later, tender meats, broiled, stewed or baked, and fresh fish may be added.

b. Food selection guide.

Food	Permitted	Avoid
Beverages	Cocoa or chocolate, cream and hot water, chocolate malted milk, eggnog, milk, milk shake, postum.	Acid drinks, alcohol, coffee and tea. Too hot or too cold liquids.
Bread	Well done toast made from stale white or graham bread, graham crackers, zweiback.	Hot biscuits, fresh bread, bran bread, muffins.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection guide—Continued.

Food	Permitted	Avoid
Fruit	Baked apple without skin or seeds, baked banana, baked or stewed peaches, canned peaches, stewed prunes without skins, strained apple sauce, raw bananas (very ripe).	All cooked fruits containing a large amount of acid or too much sugar in preparation. Raw and dried fruits.
Nuts		All kinds.
Salads and salad dressing.	Mayonnaise occasionally	Highly seasoned dressings of all kinds.
Salt and condiments	Salt very sparingly	Catsup, highly seasoned sauces, horseradish, mustard, pepper, relishes.
Sweets		All candy, jams, sundaes, etc.
Soups	Cream vegetable soup, purées.	Bouillons, canned soups, meat broths, meat soups.
Vegetables	Asparagus (tender), beets, cauliflower, carrots, potatoes, baked or mashed, purée of string beans, spinach, squash. These must all be well cooked, the tough fiber removed, and strained through vegetable sieve.	All raw or coarse vegetables and tomatoes.

120. Beverages.—*a. Eggnog.*—Beat egg thoroughly; add two teaspoonfuls of sugar, a glassful of milk and a few drops of vanilla; mix thoroughly.

b. Egg broth.—Beat egg thoroughly, and add half a teaspoonful of sugar and a pinch of salt. Over this pour a glass of hot milk and serve immediately. Hot water or cream soup may be used in place of milk.

c. Egg cordial.—Beat the white of an egg until stiff; add a tablespoonful cream and two teaspoonfuls of sugar and one-half teaspoonful of vanilla.

d. Barley water.—One tablespoonful barley flour, 1 pint boiling water, 1 teaspoonful salt, 2 tablespoonfuls cold water. Rub the barley flour (which may be obtained at any pharmacy), salt, and cold water to a paste; add to the boiling water, stirring constantly. Let boil 5 minutes, then cook in a double boiler 30 minutes and strain.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

121. Milk products, cheese, and gruels.—*a. Milk.*—(1) *Care.*—Milk readily absorbs odors, flavors, and impurities; it is one of the best soils for the growth and multiplication of certain disease germs. Bacteria are introduced from dust arising from cow's body, from the clothing or hands of the milker, from the milk vessels, or from the water in which these have been washed. Bacteria once admitted to the milk begin to multiply; warmth is favorable to their growth, hence it is desirable to cool the milk as soon as it is drawn to keep it at as low a temperature as possible. Besides being kept cool, milk that is delivered in bottles and stored in refrigerators with other foods should be tightly sealed. If the bottles are to be opened several times and the caps cannot be replaced, close the neck of the bottle with cotton. When in doubt about the sources or quality of the milk, it should be pasteurized.

(2) *Use.*—Milk and milk products have a valuable use in stomach and duodenal ulcers and post-operative convalescence. A glass of rich milk is nourishing, easily digested, and combines with the acid of the stomach, thereby relieving distress and promotes healing. If raw milk should disagree, lime water or soda may be added; or it may be diluted with barley water. Peptonized milk will be found to agree with most individuals.

b. Peptonized milk.—Put in a glass jar 1 pint of milk and 4 ounces of cold water; add 5 grains of extract of pancreas (powdered) and 15 grains of bicarbonate of soda. (The contents of one of "Fairchild's Peptonizing Tubes" may be used in place of the pancreas extract and soda.) After mixing thoroughly, place the jar in water as hot as can be borne by hand (about 115° F.). This temperature should be maintained from 6 to 20 minutes. At the end of this time milk may be placed upon ice until required. If the milk is to be kept for any length of time, it should be brought to boil to prevent the formation of too much peptone, which renders the milk bitter.

c. Whey.—To ½ pint of fresh milk heated lukewarm (115° F.), add 1 tablespoonful of essence of pepsin, and stir just enough to mix. When milk is firmly coagulated, beat with a fork until the curd is finely divided and then strain. For flavoring purposes, ¼ teaspoonful of lemon juice may be added.

d. Malted milk.—One tablespoonful of malted milk; 2 tablespoonfuls of warm water, few grains of salt. Make a paste with the above. Add 1 scant cupful of water, cold or hot, or milk to which cream may be added. Add the liquid gradually, stir briskly; serve hot.

e. Milk and cereal water.—A valuable method of preparing milk for patients with whom it disagrees is to mix equal parts of milk and

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

thoroughly cooked barley, rice oatmeal, or arrowroot water, and boil them together for 10 minutes. This may be served plain or flavored by cooking with a raisin or a very small piece of stock cinnamon which should be strained out before serving.

f. Cottage cheese.—Let fresh milk stand in a warm room from 1 to 3 days, or until the curd separates from the whey. Turn the curd into a coarse cotton bag and let hang in a cool dry place about 24 hours, or until the curd is free from whey. Add salt and sweet cream to taste. In winter the process may be hastened by heating thick soup or clabbered milk over hot water, but if the water is too hot, a tough cheese results. The cheese is most rich and creamy when the separation takes place at a low temperature, that is, about 100° F.

g. Egg and buttermilk mixture.—Beat the white of one egg and 1 to 4 ounces of cream together. Pour into a glass and fill with fresh buttermilk. Stir well.

122. Custards.—*a. Rules for custard.*—The eggs should be thoroughly mixed, but not beaten light, the sugar and salt added, and then the hot milk added slowly. Custards must be cooked at a moderate temperature. If a soft custard curdles, put it in a pan of cold water and beat until smooth.

b. Soft custard.—Add 2 tablespoonfuls of sugar and a few grains of salt to lightly beaten egg. Pour 1 cup of milk over beaten egg mixture, stirring constantly. Cook in a double boiler until mixture is creamy. Remove from fire at once, add a few drops of vanilla and chill.

c. Chocolate custard.—Melt ½ ounce of chocolate, add to the milk, and proceed as for soft custard.

d. Baked custard.—Proceed as for soft custard, but pour the custard into baking cups. Place the cups in a deep baking pan, and fill the pan nearly as high as the cups with boiling water. Place in a moderate oven and bake 20 minutes or longer, according to the size of the cup. When done, a knife thrust into the custard comes out clean; if it is not done the knife comes out covered with custard.

e. Junket with egg.—Beat 1 egg to a froth, add 2 teaspoonfuls of sugar, combined with 1 cup of warm milk, then add one-half junket tablet, dissolved in 1 tablespoonful of cold water. Let it stand in a warm place until firm. Chill.

123. Cereals.—*a.* Cereals require thorough cooking. Most cereals should be cooked in a double boiler. Cereals for breakfast may be cooked the day before, but should not be stirred while reheating. A tablespoonful or two of cold water on top will prevent a hard scum from forming while standing. Use one-half teaspoonful of salt to

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

each cupful of water. Have water boiling. Add cereal gradually and boil for 5 minutes. Place over boiling water or in a fireless cooker to cook slowly for a long time.

b. Any cereal mush may be thinned with water, milk, cream, strained, and made directly from the grain or flour. Gruels should be thin, not too sweet, and served quite warm.

Cereal	Quantity to 1 cup water	Time of boiling (minutes)	Time of cooking (hours)
Rolled oats	⅓ cup	5	1½
Cream of wheat	⅛ cup	3	1
Steamed rice	⅛ cup	3	1½
Boiled rice	⅛ cup or 2 tablespoons	20	-------

124. Soups.—*a. General.*—(1) Only cream soups and purées are considered as they are more suitable, the meat soups tending to stimulate the flow of gastric juice. After 4 to 6 months the patient may partake of any form of soup, but should avoid undue amounts of salt, pepper, and other seasonings. The cream soups and purées are highly nutritious. All soups must be strained for first few months. The cream soups allowed are mushroom, celery, string bean, beet, carrot, spinach, kale, potato, corn, lima bean, and pea.

(2) A crisp preparation such as a cracker, thin crisp toast, or croutons may be served with soup. The method of preparing these soups is the same as a standard cream soup, only substitute the vegetables.

b. Croutons.—Cut bread into ½-inch cubes. Toast in a moderate oven.

c. Breadsticks.—Cut stale bread into pieces 3 inches long and ½-inch thick. Toast in a moderate oven.

d. Cream of celery soup.—Cook 1 cup diced celery in 1 pint of water to which ½ teaspoonful of salt has been added until tender. The quantity of celery and liquid should equal 1 pint. To this mixture add 1 pint of white sauce.

e. White sauce.—Three tablespoonfuls flour, 3 tablespoonfuls butter, 2 cups milk, 1 teaspoonful salt. Rub together the butter and the flour, adding gradually the hot (but not scalding) milk. Cook in a double boiler 10 or 15 minutes, stirring frequently. Add salt.

f. Cream of corn soup.—Turn one can of corn into a saucepan, add a little water and cook gently over the fire for a few minutes. Prepare a white sauce of 1 quart of milk, 2 tablespoonfuls salt, 3 table-

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

spoonfuls flour and 3 tablespoonfuls butter. Turn the corn into the white sauce and cook together for a few minutes. Strain.

g. Cream of potato soup.—Wash and pare two medium sized potatoes, slice and cook in sufficient boiling salted water to cover. Cook until tender. Drain the liquid into a pint measure, and mash the potatoes; add sufficient milk to fill the pint measure and add to mashed potatoes. Add 2 teaspoonfuls grated onion, 1½ teaspoonfuls salt and ¼ teaspoonful celery salt to the liquid. Rub 1 tablespoonful flour and 1 tablespoonful butter together and pour over it (stirring meanwhile) the hot liquid. Cook over the fire until thick. Add 2 tablespoonfuls chopped parsley just before serving.

h. Cream of green pea soup.—Press boiled or canned green peas through a colander to make a purée. To 1 cup of purée, add 1 teaspoonful salt, 3 cupfuls milk; heat to scalding. Rub 2 tablespoonfuls flour, 2 tablespoonfuls butter together and stir in the hot liquid; return to the kettle; cook 5 minutes, and serve.

i. Cream of tomato soup.—Avoid for 1 month. Heat the tomatoes, strain, and add the soda while hot, make a white sauce, and add the tomato juice. Serve immediately.

j. Oyster soup.

½ pint of oysters.
1 quart milk.
3 tablespoons butter.
¼ cupful flour.
½ cup celery leaves and stalks.
½ onion.
2 sprigs parsley.
Salt as needed.

Pour a cup of cold water over the oysters, and look them over carefully to remove any bits of shell. Strain the liquid thru a cheese cloth, then boil and skim; add to this the oysters and let simmer until they look plump and edges curl; then stir them into the sauce made by cooking the flour and the butter, creamed together, in the milk, scalded with the onion, celery, and parsley before adding the thickening to the milk. Part cream gives a much more delicious soup.

125. Vegetables.—*a. Cooking.*—(1) Time table for cooking vegetables in water, time in minutes unless otherwise stated.

Vegetable	Minutes
Asparagus	25 to 30
Beets (old)	180 to 240
Beets (young)	45
Carrots	35 to 45
Cauliflower	20 to 30
Celery	20 to 30

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Vegetable	Minutes
Green peas	20 to 40
Macaroni	45 to 60
Potatoes, boiled	25 to 30
Spinach	30 to 45
String beans	30 to 45
Turnips	45 to 60

(2) Wash, pare, peel, or scrape vegetables. Cut into pieces of convenient size. Add boiling, salted water, using 1 teaspoonful of salt to pint of water. Cook until tender.

(3) The primary objects to be attained in the cooking of vegetables are to soften the cellulose or fiber and to cook the starch. All vegetables should be crisp and firm when put on to cook. If wilted they may be freshened by soaking them in cold water or by wrapping in a damp cloth and placing in the refrigerator for an hour or more.

(4) Strong juice vegetables should not be covered while they are cooking. Water in which vegetables have been boiled may be saved and used in making soups.

(5) Vegetables are important on account of their mineral salts, their vitamins, and for the bulk which they lend to the food mass. Vegetables, like meats and fruits, especially when eaten for the first 2 months after operation, should be carefully prepared and served in a finely divided state.

b. Sauces.—Certain sauces are desirable but not essential. White sauce has previously been mentioned. The following sauce recipes are also popular:

(1) *For vegetables.*

3 tablespoonsful butter.
3 tablespoonsful flour.
1 teaspoonful salt.
1 cupful milk.
1 cupful of liquid in which vegetable is cooked.

Combine as white sauce. Milk may be substituted for the vegetable liquid.

(2) *Egg.*

1 pint white sauce.
2 hard-boiled egg yolks.

Put the hard-boiled egg yolks through a sieve. Add to white sauce.

c. Baked potatoes.—Wash and scrub the potatoes with a vegetable brush until perfectly clean. Dry with a cloth and bake in moderate

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

oven until they feel soft when pressed with the fingers. This will take about 45 minutes unless the potatoes are large. When done, take each potato in a towel in the hand, and press gently without breaking the skin until the whole potato feels soft, then skin may be broken slightly and the potatoes served at once.

d. Mashed potatoes.

1 quart potatoes.
1 teaspoonful salt.
½ cupful hot milk.
1 tablespoonful butter.

Boil the potatoes, drain, and dry by shaking gently over the flame. Rice by forcing through a ricer or a colander, or mash. Then add the seasonings and milk. Beat until light. Serve with bits of butter dotted over the top.

e. Buttered cauliflower.

1 medium size head of cauliflower.
2 teaspoonfuls butter.

Remove all the green leaves and place the cauliflower head down in cold water to which has been added 1 tablespoonful of salt to each quart of water. Let soak ½ hour or more to draw out any insects that may have found their way into the cauliflower. If the head is to be cooked whole, tie it in a cheese cloth to prevent breaking. Boil in salted water 20 to 25 minutes or until tender, taking care not to cook longer than necessary. Drain and serve with melted butter. (Cauliflower is more quickly cooked if broken into pieces.)

f. Creamed cauliflower.

1 medium size head of cauliflower.
1 cupful sauce for vegetables.

Prepare and cook the cauliflower the same as for buttered cauliflower. Prepare 1 cup sauce for vegetables. Mix the cauliflower with the sauce. Let cook about 5 minutes or until the cauliflower is thoroughly seasoned with the sauce.

g. Creamed carrots.

3 cupfuls diced carrots.
1 cupful white sauce.

To prepare the carrots select two large or three medium size carrots, wash and scrape, and drop at once into cold water to prevent discoloration. Cut into ½-inch cubes and steam or cook in boiling, salted water until tender. Prepare white sauce. Drain the carrots, add the sauce, reheat and serve.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

h. Boiled spinach.

Spinach.
1 tablespoonful butter.

Pick over the spinach, carefully removing all wilted leaves. Cut off the roots and the coarse fiber of the leaves which require longer cooking, toss into cold water, and wash thoroughly through several waters, being careful to free it from sand. Boil until tender in a small amount of boiling, salted water. Drain and chop. Add butter, 1 tablespoonful to a pint of cooked spinach.

i. Spinach soufflé.

3 eggs.	2 tablespoonfuls butter.
¼ cupful flour.	½ teaspoonful salt.
1 cupful cooked spinach.	⅔ cupful hot milk.

Rub the flour, salt, and butter together until smooth, then stir in slowly the hot milk. Rub spinach through a colander and add to this white sauce. Beat egg yolks until light and creamy, add to the mixture, and fold in stiffly beaten egg whites. Turn into a buttered baking dish, set in a pan of hot water, and bake in slow oven 15 to 20 minutes. Serve immediately.

Other vegetables such as grated carrot, purée string beans, lima beans, asparagus, or eggplant may be substituted for the spinach.

j. Mashed turnips.—Turnips. Salt. Butter.

Wash and pare the turnips deeply enough to remove the fibrous layer which lies about ⅛ to ¼ inch beneath the skin; slice or quarter and cook in boiling water. Cook uncovered. When almost done, which will require from 45 minutes to 1 hour, add salt and finish cooking. Drain, mash, and add 1 tablespoonful butter to each pint of mashed turnips.

k. Mashed summer squash.—Squash. Butter. Salt.

Select squash of about equal size. If mature, quarter and remove seeds. If quite young they may be cooked whole. Steam or cook in a very small quantity of water, allowing as much water as possible to evaporate at the last of the cooking. Unless the squash is quite dry, drain the liquid from it. Mash, and season with the butter and salt.

126. Meat, poultry, and fish.—Meats, as well as poultry and fish, are eaten sparingly for the first 3 or 4 months following operations. All fried meats and fish should be strictly avoided. For the first few months, coarse or tough meats containing much fiber are undesirable. Such meats are slow to leave the stomach, causing acidity and fermentation. Scraped beef, and meat or poultry, jellies, calf's brains, tender chicken or squab are recommended. Meats may be

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

run through a meat chopper, thus greatly increasing their digestibility in ulcer-bearing patients.

a. General rules for preparing meats.—(1) Meat should be removed immediately from the paper in which it is wrapped and put in a cool place. Only tender cuts of meat should be broiled, pan-broiled, or roasted. When meat is to be cooked by any of these methods, it should first be seared and then the temperature slightly lowered. Roasts may be satisfactorily cooked at a low heat without searing.

(2) Tough meat should be cooked in water. Boiling water hardens the albumin on the outer surface of the meat and prevents the juices from escaping. Meat should be put in boiling water and the water allowed to proceed at a low temperature until the meat is tender. The time required for roasting or cooking in water varies with the weight and quality of the meat.

(3) The time required for broiling meats varies with the thickness of the meat.

(4) Stock and broth are prepared by prolonged soaking of the meat in cold water and then cooking it at a low temperature for several hours, allowing it to cool uncovered. The meat that remains after straining may be utilized in various ways, adding a little fresh meat to give it flavor.

(5) The fat must not be removed from stock or broth, for the fat excludes the air and prevents decomposition. It must, however, be entirely removed before the stock or broth is used; this fat may be used in place of drippings. Small globules of fat may be removed from cold broth with a cloth that has been dipped in boiling water and then wrung dry. Fat may be removed from hot broth by means of tissue paper or a slice of bread.

b. Cooking tender meats.—(1) *Roasting.*—Skewer the meat into shape. Place it on a rack in a meat pan, into the bottom of which pieces of fat from the meat have been placed. Put into a hot oven for 10 minutes to sear the meat. Then reduce the temperature of the oven. If desired, it may be seasoned with salt. Baste every 10 minutes until it is done.

(2) *Broiling.*—Remove extra fat from the meat and grease the broiler with part of the fat. Broil over a clear fire, sear, and then turn every 10 seconds. Chops 1 inch thick should be cooked for 5 minutes. A steak 2 inches thick should be cooked for 10 minutes. Season and serve on a hot platter.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Pan-broiling.*—Remove fat from the meat. Heat a frying pan very hot, but use no fat. Sear the meat on both sides, and then cook more slowly until it is done. Stand chops upon their edges to brown. Keep the pan free from fat. The time required for pan-broiling is the same as that required for broiling.

c. Chicken.—(1) *Broth.*—Clean fowl, cut it into pieces and soak in cold water for 1 hour. Then cook in same water for 4 or 5 hours. Keep chicken covered while cooking and the temperature below the boiling point. Strain, add salt, and remove fat. A medium size fowl requires 2 quarts of water.

(2) *Jelly.*—Cut a medium size fowl into pieces and boil in 1 quart of water for 2 hours, until only a pint of liquid remains. Season and strain. Place on ice to jell. Serve cold.

d. Calves' brains.—Wash the brains thoroughly, removing all the small membranes. Place in a quart of cold water to which a tablespoonful of vinegar has been added, soak for 20 minutes or half an hour, then drain. Drop into boiling water and cook 3 minutes, no longer. Pour off the water and replace with cold water. After this preliminary treatment they are ready for use in any way desired. Put on ice until ready to cook.

e. Fish.—Fish contain all the elements of meat in an easily digestible form. On this account it is adapted to the needs of old and young alike and especially sedentary people. Brook trout, bass, perch, and pike are best fresh-water fish. Of salt-water fish, cod, haddock, and halibut are the best staples.

(1) *Cooking.*—Fish may be boiled, braised, baked, or broiled, according to individual fancy.

(2) *Boiling.*—(*a*) In cooking fish in boiling liquid, two things must be kept in view, appearance and nutritive value. Cold liquid draws out the juices, while plunging the fish in boiling water causes the skin to contract and crack.

(*b*) In consequence, a medium course must be pursued. Lower the fish, placed in a frying basket or tied in a piece of cheese cloth, into warm liquid and bring quickly to the boiling point; then let simmer until the flesh separates readily from the bones. After simmering begins, cooking will take 5 to 8 minutes a pound, according to the thickness of the fish.

(*c*) Have liquid cover the fish; add a teaspoonful of salt and a tablespoonful of lemon juice to each 2 quarts of liquid. When fish is cooked, drain, garnish with fresh parsley or cress, and serve with hollandaise or drawn butter sauce.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Broiling.*—Fish that when dressed presents a thin, flat surface in which the oil is distributed throughout the fish, as shad, bluefish, and mackerel, are usually broiled. Before broiling a fish, brush well with butter or oil, and be careful that the fire is not too hot. After the first few seconds, the fish should be drawn away from the fire and cooked more slowly. Many varieties of fish if subjected to an intense heat become hard and indigestible. Mackerel and bluefish of fair size require 15 to 20 minutes slow cooking. Baste with butter once or twice. The latter part of the cooking, particularly when the fish is thick, will be more successfully carried on in the oven. The broiler may be placed in the oven over a dripping pan. With a fork carefully separate the fish from the broiler on both sides, then slide on to a dish. Spread with butter.

(4) *Baking.*—Fish may be baked whole, in large, thick slices, or in fillets. Shad, halibut, salmon, bluefish, whitefish, and bass are among those commonly baked. Place fish on greased fish sheet. Bake in hot oven, basting every 10 minutes.

(5) *Broiled brook trout.*—Cut off the fins, draw the gills, push the handle of a wooden spoon along the backbone of each on the inside, to loosen the blood vessel that lies along the spine; wash and wipe dry, cut small incisions on both sides, season with salt, and broil in a double broiler from 10 to 15 minutes, according to the size of the fish. Turn every few seconds while broiling, to avoid burning the skin. Hold the broiler farther from the fire after the first few seconds.

127. Desserts.—Only the simpler, wholesome, and easily digestible desserts should be selected. (Too much sugar should be avoided either in their preparation or serving, otherwise gas and hyperacidity may be a consequence.) These include bread and cornstarch puddings, gelatin, blanc mange, junket, custards, tapioca, rice, baked apple, apple sauce, purée of prunes, plain ice cream, and sherbet (eaten slowly), etc.

a. Baked bananas.

6 bananas.
1 egg.
2 tablespoonfuls bread crumbs.

Remove the skin from the required number of bananas and scrape to remove all fuzzy portion next to the skin. Beat one egg and add two tablespoonfuls of milk or water. Dip the bananas into the beaten egg, then into toasted bread crumbs. Place on an oiled pan and bake in a moderate oven 30 to 40 minutes, or until perfectly tender. Baked bananas are very wholesome but raw bananas are sometimes troublesome unless very ripe.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Prune fluff.

¼ pound dried prunes.
1 egg white.
1 cupful whipping cream.

Wash prunes and let stand in boiling water a few minutes. Drain and soak in sufficient cold water to cover. Let soak for 24 hours, or until the prunes are soft. Drain off the liquid. Remove the stones and put the prunes through a colander. Then fold in the beaten egg white. This quantity should make one cupful of pulp. Serve in sherbet glass with a spoonful of whipped cream to each glass.

c. Prune soufflé.

2 cupfuls prune pulp.
4 egg whites.
4 tablespoonfuls powdered sugar.

Cook 1 pound of prunes until tender and quite dry, and put through a colander. Beat two egg whites stiff and fold into the pulp. Put into a baking dish, set in a pan of hot water, and bake 30 minutes in a moderate oven, or until set. Make a meringue by beating the other two egg whites stiff and adding the powdered sugar. Spread on top of the prunes. Place in a moderate oven a few minutes until the meringue is brown.

d. Snow pudding.

1 quart milk.
¼ cupful sugar.
4 egg whites.
½ cupful cornstarch.
½ teaspoonful salt.
2 teaspoonfuls vanilla.

Mix the cornstarch with some of the milk. Add the sugar to the remainder of the milk and heat to scalding in a double boiler. Add the blended cornstarch. Cook ½ hour. Beat the egg whites stiff, then gradually add the hot mixture to them, beating in thoroughly. Add the vanilla and salt, pour into molds. Serve cold.

e. California cream.

2 tablespoonfuls gelatin.
1 cupful cold milk.
3 cupfuls hot milk.
½ cupful sugar.
2 eggs, beaten separately.
1 teaspoonful vanilla.

Soak gelatin in cold milk and dissolve in hot milk. Add 2 tablespoonfuls of water to yolks of eggs and beat well. To them gradually add the sugar and beat until the sugar is well beaten in. Stir into the hot milk and let it cook for 5 minutes in a double boiler. Remove from fire and when cool, pour slowly over the stiffly beaten whites of egg to which has been added 6 tablespoonfuls powdered sugar. Beat together, add flavoring, mold, and chill.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

f. Graham whip.

1½ tablespoonfuls gelatin.	1½ cupfuls ground graham crackers.
½ cupful cold water.	2 tablespoonfuls sugar.
¼ cupful boiling water.	1 teaspoonful vanilla.
	2 cupfuls whipped cream.

Soak gelatin in cold water, add boiling water and sugar. When cool, fold in whipped cream and cracker crumbs. Mold and chill.

g. Bread pudding.

1 cup dry bread crumbs.	⅛ cup melted butter.
1 pint hot milk.	1 egg slightly beaten.
¼ cup sugar.	½ teaspoonful flavoring.

Add crumbs to hot milk, set aside to cool. Add all the other ingredients, bake in a moderate oven.

h. Butterscotch bread pudding.—Instead of granulated sugar, use ½ cup brown sugar. Melt with butter over fire and cook until a dark brown.

i. Baked caramel custard.

3 eggs.	¼ cup sugar.
1 pint milk.	¼ teaspoonful salt.
4 tablespoonfuls caramelized sugar.	¼ teaspoonful vanilla.

Dissolve caramelized sugar in milk. Complete as for baked custard.

j. Apple snow.

2½ tablespoonfuls apple sauce.	½ lemon.
	3 egg whites.
2½ tablespoonfuls gelatin.	

Soak gelatin in a little cold water, add enough hot water (1½ cups) to dissolve; cool. Add apple sauce, lemon juice, and beat. When it begins to jell beat slightly and fold in beaten egg whites. Let stand, beat again in 15 minutes. Pour into dessert dishes and place in a cool place to become firm.

A thin boiled custard may be poured over the apple snow just before serving.

k. Blanc mange.

1 tablespoonful gelatin.	½ cup sugar.
2 cups milk.	½ teaspoonful vanilla.

Soak gelatin in ¼ cup milk, scald the rest of the milk with the sugar and salt, add the soaking gelatin, strain, add vanilla and pour into molds.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

l. Jellied pears.—Make a standard recipe of gelatin in any flavor. When it begins to jell pour over whole Barlett pears placed in shallow pan. When firm cut in squares, serving one pear to a person.

128. White sauce.—*a. Recipes.*

No. 1 or thin	*No. 2 or medium*	*No. 3 or thick*
1 cup milk.	1 cup milk.	1 cup milk.
1 tablespoonful butter.	2 tablespoonfuls butter.	3 tablespoonfuls butter.
1 tablespoonful flour.	2 tablespoonfuls flour.	4 tablespoonfuls flour.
½ teaspoonful salt.	½ teaspoonful salt.	½ teaspoonful salt.

b. Suggestions for use.—(1) Vegetables or potato may be served with the thin white sauce.

(2) Poached egg on toast with medium white sauce.

(3) Asparagus on toast with medium or thick white sauce.

c. Cream cheese sauce.—Make a thick white sauce but before removing from the stove beat in one-half package of creamed Philadelphia cream cheese, season slightly, and serve on toast.

Section III

DIETARY INSTRUCTIONS FOR VARIOUS CASES

	Paragraph
Anticonstipation (A. C.) diet	129
A. C. diet for irritable colon	130
A. C. high fat, low residue diet	131
Low caloric (reducing) diet	132
High caloric, high vitamin, low residue diet for ulcerative colitis	133
Diet for diverticulosis of colon	134
Low fat diet for diseases of liver and gall bladder	135
Cardiovascular-renal diet	136

129. Anticonstipation (A. C.) diet.—*a. General.*—(1) This diet is not applicable to irritable bowel.

(2) Because of a certain type of constipation, it has become necessary to modify the diet. All diets should be well balanced, and this fact has not been overlooked in arranging dietary requirements. In general, the diet for the first 3 months should consist chiefly of cooked fruits, cooked vegetables, coarse breads, and coarse cereals. Raw fruits and vegetables may be added gradually after 2 or 3 months. An increase or decrease in the quantity of vegetables and fruits may be made, depending on the response to treatment. If underweight, a glass of rich milk or malted milk should be taken with meals and between meals. The following guide for selection of proper foods should be closely followed. Eat three meals daily at regular hours.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

If underweight, midmeal food may be given. In selecting the food for menus, care must be exercised so that a balanced diet will be eaten. A large amount of one food must not be eaten at the expense of some other food that is equally important.

b. Food selection guide.

Food	Permitted	Avoid
Beverages	Buttermilk, coffee, fruit juice, milk, postum.	
Bread	Bran, graham, muffins, nut bread, raisin, rye, whole wheat.	Corn bread, crackers, white breads.
Butter and olive oil	As much as desired, the more eaten the better unless inclined to be obese.	
Cereals	Bran breakfast foods, coarse cereals, oatmeal, pettijohn. Cream and sugar with all cereals.	Cream of wheat, farina, grapenuts.
Cheese	Creamed cottage cheese.	All others.
Desserts	All kinds of fruit and gelatin, desserts, ice cream, ices, sherbets.	All custards, pies and puddings containing a large amount of crackers, bread, and eggs.
Eggs	One or two soft-boiled eggs daily.	Eggs in large quantities, regardless of how prepared.
Fruit	Apples, figs, prunes, dates, grapes, oranges, peaches, pears, plums. All stewed fruits, especially prunes, figs, apples.	Bananas.
Meat	Chicken, crisp bacon, fish, lamb chops, steak. All in moderate servings.	
Nuts	A few (any kind), daily.	
Salads	All kinds of fruit and vegetable salads.	Cheese, chicken, egg, fish, lobster, meat.
Salad dressings	Any kind and in as large quantities as desired.	Highly seasoned dressings.
Soup	Cream soups, purées, vegetable, vegetable bouillon.	

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection guide—Continued.

Food	Permitted	Avoid
Vegetables	All kinds, and in as large quantities as desired. Those generally used are beets, cabbage, carrots, celery, cucumbers, dandelion, green peas, greens, lettuce, parsnips, radishes, rutabagas, spinach, tomatoes, turnips.	

c. Sample menus.

Breakfast	Dinner	Supper
Cereal, 1 serving. Fruit, 1 serving. Bacon, 2 or 3 strips. Eggs, 2. Bread, 2 slices. Butter, as desired. Cream, as desired. Milk, 1 glass. Coffee, 1 cup.	Soup, vegetable, 1 serving. Meat, 1 serving. Potato, 1 serving. Salad, vegetable or fruit, 1 serving. Bread, 1 slice. Butter, as desired. Cream, as desired. Dessert, 1 serving. Fruit juice, 1 glass.	Meat, 1 serving. Potato, 1 serving. Vegetable, 1 serving. Salad, vegetable, 1 serving. Bread, 1 slice. Butter, as desired. Cream, as desired. Dessert, 1 serving. Fruit juice, 1 glass.

Water.—Drink three glasses before breakfast, between meals, and before retiring.

d. Medication.—(1) At the beginning of treatment, it may be necessary to take a tablespoonful of mineral oil two or three times daily. This should be reduced and finally discontinued as the symptoms are relieved.

(2) Oil retention enemas (180 cc warm olive oil), may be used at bedtime and retained until morning. These too should be reduced in number and discontinued as symptoms justify it.

(3) Agar-agar: Take one or two tablespoonfuls, plain granulated agar-agar three times a day on cereals or in fruit juices. It may be used in addition to or as a substitute for the mineral oil or oil enemas.

e. Exercise and habits.—(1) Any exercise such as stooping, bending, and abdominal massage which tends to develop the abdominal muscles is beneficial. Every night and morning, lie on the back and raise the extended legs as high as possible ten to forty times. Walk 3 or 4 miles, saw wood, or work in the garden every day.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) Avoid tobacco in all forms.

(3) Never neglect a "call." Visit the toilet at once even at much inconvenience. A lost "call" is not easy to recover.

(4) Visit the toilet at a regular time at least twice daily, even though there is no desire. Take plenty of time. Bowels that are constipated respond slowly at first.

(5) Eat meals regularly. Don't miss a meal. Take plenty of time to eat. Chewing food well stimulates the colon to push the residue along.

(6) Remember, it is better to correct constipation by regular habits, exercise, water, and proper diet than by medicine.

(7) Take a cold bath in the mornings.

(8) Omit all medication as soon as possible. Negligence in carrying out the above regime will result in failure, and if improved, a relapse.

f. Special instructions.

Diet: Omit_____.

Medication_____.

130. A. C. diet for irritable colon.—*a. General.*—(1) This condition requires a special diet. Effort will be made to furnish a well-balanced diet in adequate amount to insure proper nutrition. However, certain foods must be avoided. In acute stages or when symptoms are severe, omit—

(*a*) Chicken, fish, and meat.

(*b*) Cream cheese.

(*c*) Apple sauce.

(*d*) Plain cakes.

(*e*) Potatoes.

(*f*) Rice, spaghetti, and noodles.

(2) As soon as symptoms subside sufficiently, these items should again be added to the diet. Avoid raw vegetables and fruits at all times. Highly seasoned foods should never be taken; a moderate amount of salt may be used. Foods that contain a large amount of roughage are irritating. Foods containing considerable cellulose will be well tolerated, if properly cooked and puréed. By this process, most of the irritating particles are eliminated. Avoid all fried foods, vinegar, and highly seasoned foods.

b. Food selection guide.—When symptoms are acute or severe, the medical officer will determine from day to day and prescribe dietary needs. When this is no longer required, select foods by the following guide:

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Food	Permitted	Avoid
Beverages	Buttermilk, cocoa, coffee, chocolate, milk, orange juice, postum.	All others.
Bread	Crusts of hot biscuits, toasted white bread, white bread.	Graham muffins, rice, whole wheat, any containing bran.
Butter and olive oil	Moderate amount of either.	
Cereal	Cream of wheat, farina, food of wheat, rolled oats, sieved oatmeal.	Any cereals containing large amount of bran, shredded wheat biscuits.
Cheese	Fresh creamed cottage cheese.	All others.
Dessert	Custards, ice cream, gelatin, plain cake, simple puddings, stewed fruits (sieved).	Candies, cheese, jams, jellies, nuts, raw fruits, raisins.
	Sugar is permitted but do not use too much. Stewed berries may be used by thickening the juice with cornstarch.	Sugar in concentrated form.
Eggs	Coddled or poached, soft-boiled, scrambled, in moderate quantities.	
Fruit	Stewed fruits that have been sieved.	Bananas, cantaloupe, melons.
Meat	Moderate servings of chicken, fish, oysters, squab, if cooked simply.	Canned fish, fibrous particles of all meats, pork and highly seasoned meats and dressings. Smoked fish.
Nuts	----------	All.
Salad	----------	All.
Soup	Bouillon, broths, chowder, cream soups.	Those containing large particles of coarse vegetables and fibrous particles of meat.
Vegetables	Artichoke hearts, beans, hominy, Italian pastes, lentils, lima beans, macaroni, noodles, potatoes, rice, spaghetti, sweetpotatoes, tender asparagus tips.	Older string beans, spinach.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Sample menus.—In making the menu, the following will serve as a general guide as to articles served and the amount that should be eaten at each meal.

Breakfast	Dinner	Supper
Orange juice, 1 glass.	Cream of pea soup, 1 cup.	Scrambled beef balls, 2.
Food of wheat, 1 serving.	Roast beef, 1 serving.	Broiled rice, 1 serving.
Coddled eggs, 2.	Asparagus tips, 1 serving.	Sieved peas, 1 serving.
Bacon, 2 slices.	White bread, 1 slice.	White bread, 1 slice.
Toasted white bread, 1 slice.	Gelatin, 1 serving.	Ice cream, 1 serving.
	Milk, 1 glass.	Milk, 1 glass.
Butter, as desired.	Butter, as desired.	Butter, as desired.
Coffee, 1 cup.	Tea or coffee, 1 cup.	Tea or coffee, 1 cup.

d. Special instructions.

Diet: Omit_____.
Medication_____.

131. A. C. high fat, low residue diet.—*a. General.*—This condition requires a special diet as an essential part of the treatment. It is necessary that the amount of indigestible residue be kept to the minimum in order to prevent unnecessary irritation of the colon. In this diet, there is a marked increase of fats, which will enable the patient to gain some weight. The extra fat may be easily supplied by the free use of butter and cream, cream soups, and oil dressings with the meals.

b. Food selection guide.—When the symptoms are severe or the condition is acute, the medical officer will supervise dietary needs from day to day. Afterward, the general guide given below should be followed.

Food	Permitted	Avoid
Beverages_____	Buttermilk, cocoa, coffee, chocolate, milk, orange juice, postum.	All others.
Bread_____	Crusts of hot biscuits, toasted white bread, white bread.	Graham, muffins, rice, whole wheat. Any containing bran.
Butter and olive oil_	Use freely.	
Cereal_____	Farina, food of wheat, oatmeal, rolled oats.	Bran flakes, shredded wheat biscuits. Any containing large amount of bran.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection guide—Continued.

Food	Permitted	Avoid
Cheese	Fresh creamed cottage cheese.	All others.
Dessert	Custards, ice cream, gelatin, plain cake, simple puddings, stewed fruits (sieved). Sugar is permitted but do not use too much. Stewed berries may be used by thickening the juice with cornstarch.	Candies, cheese, jams, jellies, nuts, raw fruits, raisins, sugar in concentrated form.
Eggs	Coddled, poached, soft-boiled, scrambled, in moderate quantities.	
Fruit	Stewed fruits (sieved).	Bananas, cantaloupe, melons.
Meat	Moderate servings of chicken, fish, oysters, squab.	Fibrous particles of all meats, all smoked fish, canned fish, and pork.
Nuts		All.
Salad		All.
Soup	Chowder, cream soups.	All those containing large particles of coarse vegetables and fibrous particles of meats.
Vegetables	Artichoke hearts, beans, hominy, Italian pastes, lentils, lima beans, macaroni, noodles, potatoes, rice, spaghetti, sweet potatoes, tender asparagus tips.	Older string beans, spinach.

c. Sample menus.

Breakfast	Dinner	Supper
Orange juice, 1 glass.	Cream of pea soup, 1 serving.	Cream of celery soup, 1 serving.
Food of wheat, 1 serving.	Roast beef, 1 serving.	Scraped beef balls, 2.
Coddled eggs, 2.	Baked potato, 1 serving.	Boiled rice, 1 serving.
Bacon, 2 slices.	Asparagus tips, 1 serving.	Sieved peas, 1 serving.
White toast, 1 slice.	White bread, 1 slice.	White bread, 1 slice.
Butter, use freely.	Gelatin, 1 serving.	Ice cream, 1 serving.
Cream, table, 30 cc.	Milk, 1 glass.	Butter, use freely.
Coffee, 1 cup.	Cream, 30 cc.	Milk, 1 glass.
	Butter, use freely.	Cream, 30 cc.
	Tea or coffee, 1 cup.	Tea or coffee, 1 cup.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

d. Special instructions.—Weigh twice weekly and keep a record of weights.

Diet: Omit_____.
Medication_____.

132. Low caloric (reducing) diet.—*a. General.*—(1) This diet is prescribed to aid in reducing weight. Do not lose more than 3 pounds per week. General condition must be known to the medical officer, and while reducing, he will recheck each week. Reducing diets are dangerous if proper control is not maintained. In attempting to reduce weight, use self-control and resist all foods not prescribed. Report regularly to the medical officer as directed. Remember, you must be honest with yourself first.

(2) Cheating on diets only does harm. The scales are the barometer. Weight will be lost by persevering.

b. Food selection guide.—The following foods are the common ones used in reducing diets:

(1) *Lean meat.*—Trim off all visible fat.

Beef, round.
Beef, dried.
Chicken, broiled.
Codfish.
Crab meat.
Liver.
Shrimp.
Turkey.
Veal, roast only.

(2) *Five-percent vegetables.*

Asparagus.
Broccoli.
Cabbage.
Cauliflower.
Celery.
Cucumber.
Eggplant.
Lettuce.
Pumpkin.
Radish.
Spinach.
Tomatoes.
Turnips.

(3) *Ten-percent vegetables.*

Beets.
Brussels sprouts.
Carrots.
Olives.
Onions.
Rutabagas.

(4) *Five-percent fruits.*

Avocados.
Melons.
Lemon juice.
Rhubarb.
Strawberries.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(5) *Ten-percent fruits.*

Blackberries.
Cranberries.
Currants.
Gooseberries.
Grapefruit.
Lime juice.
Oranges.
Peaches.
Tangerines.

c. Special instructions.

Return for recheck _____.
Medication _____.

d. Table.—(1) In the table below are listed the above foods and additional articles permitted for each meal. Suitable scales should be provided.

(2) Diet consists of protein, _____ gm. Carbohydrate, _____ gm. Fat, _____ gm.

	Breakfast	Dinner	Supper	Total grams	Protein	Carbohydrates	Fats	Total calories
Bread								
Butter								
Bacon								
Bran muffin								
Cream, 20-percent								
Cottage cheese								
Cereal, dry								
Fruit, 5-percent								
Fruit, 10-percent								
Milk, skimmed								
Milk, whole								
Meat, lean								
Vegetables, 5-percent								
Vegetables, 10-percent								

133. High caloric, high vitamin, low residue diet for ulcerative colitis.—*a. General.*—The condition has now reached a subacute or chronic stage which should continue to improve. However, a special diet will be needed as a part of the treatment. The diet should be well-balanced and high in calories and vitamins. At the same time, there must be little or no indigestible residue that will irritate the colon.

b. Food selection guide.—While symptoms are severe or in the acute stage, the medical officer will supervise dietary needs from day to day.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

In the selection of foods for the menu, the general guide below should be followed:

Food	Permitted	Avoid
Beverages	Coffee, milk, tea, water.	Iced drinks.
Bread	All types except those containing bran.	All others.
Cereal	All cooked, except those containing bran. As symptoms subside, may use all dry cereals except bran cereals. Macaroni, spaghetti, and Italian pastes are permitted.	All bran cereals at all times.
Cheese	Cream cottage cheese	All others.
Dessert	Boiled custard, cornstarch pudding, gelatin desserts made with cream, ice cream (eaten slowly), junket, rice pudding, sponge cake or any strictly bland dessert. Add lactose to desserts instead of extra sugar, and cream instead of milk in making desserts.	All desserts containing berries or fruits. As symptoms subside or if symptoms are mild, bland fruits may be used.
Eggs	Coddled, poached, soft-boiled. Use freely.	Fried.
Fats	Bacon, butter, cream, mayonnaise, salad oil, all in liberal amounts.	
Fruit	All the bland fruits *Cooked.*—Apples, apricots, peaches, pears. *Raw.*—Avocado, banana, orange juice.	All coarse fruits with fiber, skin and seeds. Cooked fruits should be sieved.
Meat	All meats and meat broths, except fried meats. Eat liver and sweetbreads liberally.	Highly seasoned, fried.
Soup	Cream soups made with vegetable purée and cream. Also meat broths.	All others.
Vegetables	Beets, eggplant, potato (except fried), purée of asparagus, pumpkin, peas, squash, tender string beans. Use tomato juice freely.	Brussels sprouts, coarse string beans, cabbage, cauliflower, corn. (Celery may be added later if it is tender and chopped very fine.) Any vegetable not puréed.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Vitamins.—In addition to the vitamins in the diet, additional vitamins may be prescribed. Cod liver oil, viosterol, brewers' yeast, and wheat germ preparations are generally used. (See special instructions below.)

d. Sample menus.—In preparing the menu, the following general outline will insure a balanced diet that will meet the above requirements.

Breakfast	Dinner	Supper
Orange juice, 1 glass. Sieved oatmeal, 1 large serving. Bacon, 2 to 3 slices. Coddled eggs, 2. Toast, 2 slices. Butter, as desired. Coffee, 1 cup.	Cream of tomato soup, 1 serving. Tenderloin steak, 1 serving. Creamed potatoes, 1 serving. Purée of carrots, 1 serving. Lettuce, finely shredded, 1 serving. Mayonnaise, as desired. Bread, 2 slices. Boiled custard, 1 serving. Cream, 30 cc. Butter, as desired. Milk, 1 glass.	Cream of pea soup, 1 serving. Creamed sweetbread, 1 serving. Baked potato, 1 serving. Purée of asparagus, 1 serving. Bread, 2 slices. Jelly, as desired. Butter, as desired. Milk, 1 glass.

e. Special instructions.

Medication (including vitamins)_____.

134. Diet for diverticulosis of colon.—*a. General.*—Diet is probably the most important part of the treatment. Even though all symptoms have disappeared, the diet should be continued, because a return to certain foods will in all probability cause a return of the symptoms. The diet should not be modified except upon the advice of a medical officer. Laxatives (agar-agar and mineral oil) may be required. The medical officer will prescribe them when necessary.

b. Food selection guide.—The following guide to be used in selecting the food for menus should be carefully observed.

Foods	Permitted	Avoid
Beverages	Coffee, milk, tea, water.	Iced drinks.
Bread	All types except those containing bran.	All containing bran.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection guide—Continued.

Food	Permitted	Avoid
Cereal	All cooked cereals, except those containing bran. As symptoms subside, may use all dry cereals except bran cereals. Macaroni, spaghetti, and Italian pastes are permitted.	All bran cereals at all times.
Cheese	Cream cottage cheese.	All others.
Dessert	Boiled custard, ice cream (if eaten slowly).	
Vegetables	Asparagus, beets, eggplant, peas, potato (except fried), pumpkin, squash, string beans, tomatoes, turnips. Use tomato juice freely.	Any vegetable not puréed. Brussels sprouts, cabbage, cauliflower, coarse string beans, corn. Celery may be added later if it is tender and chopped very fine.

c. Vitamins.—In addition to the vitamins in the diet, additional vitamins may be prescribed. Cod liver oil, viosterol, brewers' yeast, and wheat germ preparations are generally used. (See special instructions below.)

d. Sample menus.—In preparing menus, the following general outline will insure a balanced diet that will meet the above requirements:

Breakfast	Dinner	Supper
Orange juice, 1 glass. Sieved oatmeal, 1 large serving. Bacon, 2 or 3 slices. Coddled eggs, 2. Toast, 2 slices. Butter, as desired. Coffee, 1 cup.	Cream of tomato soup, 1 serving. Tenderloin steak, 1 serving. Creamed potatoes, 1 serving. Purée of carrots, 1 serving. Lettuce, finely shredded, 1 small serving. Mayonnaise, as desired. Bread, 2 slices. Boiled custard, 1 serving. Cream, 30 cc. Butter, as desired. Milk, 1 glass.	Cream of pea soup, 1 serving. Creamed sweetbread, 1 serving. Baked potato, 1 serving. Purée of asparagus, 1 serving. Bread, 2 slices. Jelly, as desired. Butter, as desired. Milk, 1 glass.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

e. Special instructions.

Use orange juice liberally with and between meals.

Medication .....

135. Low fat diet for diseases of liver and gall bladder.—*a. General.*—The low fat diet has been prescribed as an important part of the treatment. The habits of living, diet, exercise, rest, and mental relaxation are necessary in hastening recovery. Take daily exercise by walking in the open air. Break up the day with 1 hour complete rest on the back in the middle of the day. Alcohol is forbidden in all forms. Drink water (six or seven glasses) daily. Fatty foods must be avoided. The bowels should move regularly once or twice daily.

b. Food selection guide.—Because of the wide range of foods containing fat in the natural state or must be used in their preparation, it is easier to list the permissible foods for the low fat diet. The following list is a guide to be followed in making out the menu.

(1) *Bread.*—No restriction.

(2) *Beverage.*—Coffee, skimmed milk, tea.

(3) *Cereal.*—No restriction.

(4) *Crackers.*—Graham or white.

(5) *Desserts.*—No restriction on plain desserts made without fats and eggs; jams, jellies, and hard candies permitted freely.

(6) *Eggs.*—Restrict to one daily.

(7) *Fruit.*—No restriction.

(8) *Italian pastes.*—No restriction.

(9) *Meat.*—Beef, chicken, and turkey (trim off all visible fat).

(10) *Soup.*—Only skimmed meat, chicken, and vegetable broths are permitted.

(11) *Vegetables.*—No restrictions (must not be creamed).

(12) *Avoid* all fried foods, fatty foods, butter, cream, mayonnaise, and other concentrated fats.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Sample menus.

Breakfast	Dinner	Supper
Orange juice, 1 glass. Muskmelon, 1 serving. Coddled egg, 1. Toast, 2 slices. Jam, as desired. Skimmed milk, 1 glass. Coffee, 1 cup. 10:00 AM. Lemonade, 1 glass. Hard candy, as desired.	Skimmed chicken broth, 1 serving. Crackers, as desired. Broiled chicken, 1 serving. Baked potato, 1 serving. String beans, 1 serving. Pineapple-lettuce salad, 1 serving. Bread, 1 slice. Jelly, as desired. Plain pudding, 1 serving. 3:00 PM. Orangeade, 1 glass. Hard candy, as desired.	Steamed rice, 1 serving. Peas, 1 serving. Toast, 2 slices. Skimmed milk, 1 glass. Canned peaches, 1 serving. Tea or coffee, 1 cup. 9:00 PM. Skimmed milk or pineapple juice, 1 glass.

d. Special instructions.

Medication _____.

136. Cardiovascular-renal diet.—*a. General.*—There are many types of cardiovascular-renal disease and each requires a special diet. General instructions are applicable to all. Tea and coffee should be avoided or limited. Do not eat too much. Half portions are better tolerated. Eat more frequently if necessary to satisfy the appetite. These diets are weighed or measured. Do not eat any other food. Constipation must be avoided. Condiments, spices, and salt must not be used unless the medical officer has included it in the diet. Many require restriction of fluids. Do not exceed that permitted.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Food selection guide.—In a general way, the data below should be used as a guide in selecting food for the menu:

Food	Permitted	Avoid
Beverage	Kaffee hag, milk, postum, sanka. Water to the limit of fluid permitted.	Alcohol, cocoa, coffee, tea.
Bread and cereal	All breads and cereals may be used. However, in their preparation salt must not be added when used for salt-free diets.	All prepared cereals that contain salt.
Butter	Salt-free (sweet).	Ordinary butter if salt-free diet is used.
Cheese	Fresh cottage cheese without the addition of salt. Any cheese may be used if salt is not limited.	All except fresh cottage cheese that is prepared without salt if a salt-free diet is used.
Dessert	Plain desserts, cooked or fresh fruits such as canned peaches, fruit gelatin, fresh pears, rice pudding, sugar cookies, vanilla wafers.	Cakes, pies, rich puddings.
Fruit	Canned, cooked, fresh. All may be used freely.	
Meat	Fresh meats for salt-free diets. Bacon, ham, and semicured meats may be used only to limit of protein permitted when diet is to be salt-free.	
Milk	Milk in quantities justified by permissible fluid intake. At least 300 cc should be taken in all cases.	
Soup	Vegetable soup if permissible by limited fluid intake. To be prepared without the addition of salt if salt-free diet is used.	All meat soups.
Vegetables	Canned and fresh vegetables may be used freely.	

c. Special instructions.

Fluid intake is limited to ____ cc.

Protein (is) (is not) limited (special menus with quantities indicated are prepared for those requiring low protein intake).

Medication _____.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION IV

DIABETES MELLITUS

	Paragraph
Purpose of instruction	137
Cause of diabetes mellitus	138
Outlook for the diabetic	139
Symptoms	140
Hospitalization	141
Balancing diet and insulin	142
Weighing and measuring food	143
Eating meals away from home	144
Insulin administration away from home	145
Foci of infection	146
Examination of urine	147
Renal threshold	148
Blood sugar estimation	149
Kinds of insulin	150
Length of time use of insulin required	151
Insulin administration	152
Insulin reaction	153
Diabetic coma	154
Differential diagnosis	155
Prevention of diabetic coma	156
Treatment of insulin reaction	157
Treatment of feet	158
Abrasions of skin	159
Surgery	160
Food	161
Materials required	162
Sample forms for menus and daily urinalysis and blood sugar records	163

137. Purpose of instruction.—This instruction material is not intended to furnish information ordinarily contained in the various manuals now available for those afflicted with diabetes mellitus. It is furnished for the purpose of establishing a better ward routine and to assist in the study of diabetes mellitus as it applies to each case, thereby assuring better cooperation between patient and ward personnel.

138. Cause of diabetes mellitus.—*a.* Diabetes mellitus is a disease resulting from a deficiency of an internal secretion of the pancreas. This secretion is known as insulin. The cause of the deficiency is unknown.

b. Some cases are mild and can be controlled by diet alone. Usually moderate and all severe cases require insulin as well as diet to control the disease. All principal elements of food, proteins, carbohydrates, and fats are affected by the deficiency of the pancreatic secretion but

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

the detection of diabetes mellitus and its control are based on finding sugar in the urine and also on an excess of sugar in the blood.

139. Outlook for the diabetic.—Because the patient has been told that he suffers from diabetes mellitus is no reason for him to become alarmed or to believe that death is to ensue in a comparatively short time. While the cause of diabetes mellitus is not known, there is a material which, if handled properly in conjunction with a properly balanced diet, will enable one to eat sufficient to insure proper metabolic activities in the body. As with all constitutional diseases it is very important that infections and acute diseases of all types be avoided and, if these do occur, that utmost precautions be taken and treatment given in their early stages. See the medical officer at least once a month and have a complete physical examination once or twice a year.

140. Symptoms.—*a.* Often the patient is not aware of any symptoms. This is especially true in the milder forms. The usual symptoms are—

(1) Increased thirst which is called polydipsia.
(2) Increased hunger which is called polyphagia.
(3) Increased output of urine which is called polyuria.
(4) Loss of weight and strength.

b. Many other symptoms may arise from time to time but these are usually from complications which the patient is expected to learn to avoid.

141. Hospitalization.—*a.* During the period of hospitalization it is expected that more benefit will be obtained from it than the mere preparation of a suitable diet and the administration of the proper amount of insulin. The instructions received are for benefit after leaving the hospital and are designed to enable the patient to carry out the treatment at home in an intelligent manner. It will also enable the patient to recognize defects in the diet or the necessity for increase or decrease of insulin, and many other important questions which should be and may be properly interpreted early without the necessity of reentering the hospital.

b. The instructions will be divided into—

(1) *Method of examination of urine with demonstration.*—The instructions will be given in the ward by the technician as soon as practical after admission.

(2) *Methods of weighing and measuring diets with demonstrations.*—These instructions with demonstrations will be given in the ward at a designated hour each week.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Administration of insulin.*—The method of sterilization of equipment, withdrawing dosage of insulin into syringes, sterilization of site to be injected, measuring dosage, and actual administration of insulin are given by one of the ward nurses several times during period of hospitalization. Patient will be required prior to departure to show proficiency in these subjects as well as self-administration of insulin, if a patient who requires insulin as well as diet.

(4) *Talks by ward officer.*—These talks will be given in the ward at a designated hour each week.

c. It is not expected to burden the patient with an unnecessary amount of information on this subject but it is desired that he familiarize himself with enough of the essentials to enable him to follow the instructions given while in hospital. These instructions are not all that will be needed. There are many books on this subject published for a person suffering from diabetes mellitus and it will be necessary for the patient to obtain one of these books for study and reference while in hospital and in the future. The ward officer will inform the patient regarding these books.

142. Balancing diet and insulin.—*a.* There are various degrees of diabetes mellitus. Some of these can be handled adequately on diet alone. Others require both diet and insulin. Although insulin may not be required, it is just as important to be as careful with diet as if insulin is prescribed.

b. Usually upon entrance to the hospital a test diet is started. This is for the purpose of immediately lowering blood sugar and establishing some idea regarding tolerance for sugar. This diet will last for several days after which patient will be placed on a maintenance diet, which means a diet that will sustain a proper weight while engaged in occupation. This naturally varies in different people. Once the maintenance diet is started patient will be given a typewritten copy of this diet which shows the different articles of food served at each meal and also the quantity served. These maintenance diet menus, when preserved and pasted in books, will be of use at home. If patients remain in the hospital long enough to accumulate a large number of these diets, they may then select from them fourteen menus that appeal most, and place them in the book. By doing this they will have a series of menus that have been already worked out and leave nothing to do except to weigh and measure the materials listed for each meal.

c. It is desired that each patient have all the food that he feels like eating. There is no longer any reason for a diabetic to go hungry. There are, however, certain articles of food that are not permissible

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

but these articles are not necessary. One of the first lessons to learn is never to eat outside of the diet furnished. Remember that cheating on a diabetic diet is cheating yourself. If hungry after eating, tell the medical officer, and a satisfying diet will be furnished.

d. Patient will be informed of the number of grams of protein, carbohydrate, and fat that go into the diet and from time to time will be required to make an extension of the figures in the diet. Therefore he should familiarize himself from information in a diabetic manual with the percentage of these elements in the various foods furnished. If extension is at variance with the total number of calories daily received the ward officer will help find the errors.

e. In balancing the diet and insulin present condition and requirements have been considered. This does not mean that future adjustments may not be required. Often the severity of diabetes mellitus changes as well as the general conditions, and these factors often necessitate minor changes in insulin or diet and sometimes it becomes necessary to recheck completely and balance diet and insulin again.

143. Weighing and measuring food.—The proper method of weighing and measuring food will be shown. Certain recipes will be furnished; also those foods that are to be weighed before and after cooking. The manner of preparation of foods will also be described. Many patients frequently inquire about these points after they have left the hospital. Patient must assume responsibility for diet after discharge and should be able to instruct those cooking for him in the manner of weighing and preparation. After discharge from the hospital don't change diet unless directed to do so by a medical officer. Do not change insulin dosage unless there are reactions. If there are reactions, consult the medical officer immediately. The amount of food prescribed is correct and it should not be changed with a view to lowering the insulin dosage.

144. Eating meals away from home.—This is a problem that may be confusing. Most of the larger cities afford at least one diet restaurant where the diet list can be shown and be served accurately. If such is not the case and a practice is made of carrying the diet along, select articles of food available that will very closely approximate the particular meal. Such a step is advised only as an emergency measure and should not be practiced. Pocket scales are manufactured and sold by various diatetic houses and if one is going to eat away from home very often, arrangements should be made to have the diet weighed. Diabetes mellitus will not adjust itself to the patient and if he expects to get along well it will be necessary for him to adjust himself to the two largest factors for its control, diet and insulin.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

There is very little time consumed in weighing and measuring a diet after one is accustomed to it.

145. Insulin administration away from home.—One is frequently asked whether or not it is necessary to take insulin at a single meal if eaten away from home. It must be obvious that if insulin has been prescribed in certain doses by the medical officer, he is not going to advise omission of a single dose. It is true that there may be no apparent damage done by missing a single dose of insulin but it is one of the first steps in carelessness and soon leads to further "sins of omission and commission" that are certain to result in serious damage. Many firms manufacture an insulin administration outfit that is very convenient and easily used anywhere. There is no longer any reason for a diabetic to miss a dose of insulin because it is inconvenient to take it.

146. Foci of infection.—During stay in the hospital an attempt will be made to remove any foci of infection present. In the future if the question of extraction of teeth, removal of tonsils, sinus operations, or removal of any foci of infection arises, it is important for persons to inform those treating them that they are diabetics. Removal of such foci should be undertaken after all the facts are known and urine and blood sugar have been carefully checked. If insulin is required it is important to know that the effect of insulin is partially destroyed by the presence of foci of infection. Frequently the dosage of insulin can be reduced after foci of infection have been removed.

147. Examination of urine.—*a.* The importance of and the proper method of examination of the urine will be taught. Once or twice each week patient should collect all the urine passed in 24 hours and measure it to determine if passing more or less than the normal amount. The urine should be examined daily for the presence of sugar. To do this, collect the first urine passed in the morning. Put 4 drops of this urine in a test tube and thoroughly mix with 2.5 cc of Benedict's qualitative solution. Place the tube in boiling water for 5 minutes, at the end of which time if there has been no change in color the urine contains no sugar. If the color changes to a green color there is only a trace of sugar present; if a yellowish green color appears, there is about ½ percent sugar present; if a yellow color appears, there is 1 percent of sugar present; if a brick red color appears, there is more than 1 percent present.

b. Use only the amount of urine and Benedict's solution as stated above. When buying Benedict's solution be sure to get Benedict's qualitative solution and not Benedict's quantitative solution. After getting this solution test it. Do this by mixing 2 drops of undiluted

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

orange juice in 6 cc of the Benedict's solution and put the tube in a pan of boiling water for 5 minutes. If the solution is correct, a reddish yellow color will appear at the end of the time. The materials needed for testing the urine are—

(1) Several test tubes.
(2) A test tube brush.
(3) A bottle Benedict's qualitative solution.
(4) Medicine dropper.
(5) Small glass graduate measuring cc's.
(6) A small, wide mouth specimen bottle to collect daily morning specimens.
(7) A large wide mouth gallon jug to collect 24-hour specimen as directed.
(8) Pan of boiling water.

c. If it is more convenient to boil the urine over a gas jet or an alcohol lamp these articles must also be obtained. If the urine shows the presence of sugar it should be reported to the medical officer.

d. Space is provided in this pamphlet to record the dates the urine is positive for sugar; estimate of the amount of sugar present should be stated under that date. There is no need to list negative findings. It is expected that you will examine your urine daily for sugar and if those specimens that contain sugar are listed it will aid the medical officer as well as yourself in a more intelligent management.

148. Renal threshold.—The renal threshold means that point in blood sugar where the concentration of the sugar in the blood has reached a point when the kidneys begin to discharge sugar in the urine. This point varies in different people and also varies slightly in the same person over a long period of time or possibly after an illness. Usually sugar will not be found in the urine until the blood sugar has reached 175 milligrams or more. It can be readily seen then how important it is to know what the renal threshold is, for by this can be made a fair estimation of the blood sugar when a trace of sugar appears in the urine.

149. Blood sugar estimation.—*a.* Patient has been balanced by the blood sugar determination method. This is done for the reason that if merely balanced down to the point of clearing the urine of sugar and if there was a moderate or high renal threshold, blood sugar would still be running above the normal. The normal blood sugar is considered to be 70 milligrams low normal to 130 milligrams high normal.

b. Patient will be advised prior to departure whether future blood sugar determinations should be included in the routine and how often the test should be done. Elsewhere in this manual space is provided

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

for a record of every blood sugar determination. An accurate list of these with dates made should be kept, for they furnish valuable information for the medical officer in following the progress of the case.

150. Kinds of insulin.—*a. General.*—(1) If the patient is unable to maintain an approximately normal blood sugar on a diet that is satisfying and capable of sustaining the body at the proper weight at whatever his occupation may be, he should take insulin. Insulin is obtained from the pancreas of the cow. In the pancreas there are some little islets of tissue that are known as the islands of Langerhans and in health they secrete insulin which is poured directly into the blood stream. When there is a deficiency of this secretion it interferes with the metabolism of sugar in the body and this sugar continues to collect in the blood stream and tissues of the body. If enough collects, diabetic coma is the result.

(2) At the present time there are two kinds of insulin, regular (or old) insulin and protamine zinc insulin.

b. Regular.—(1) This form of insulin is absorbed quickly and for that reason acts rather rapidly. It is marketed in various strengths and is easily identified.

Blue label	U–10	1 cc= 10 units.
Yellow label	U–20	1 cc= 20 units.
Red label	U–40	1 cc= 40 units.
Green label	U–80	1 cc= 80 units.
Orange label	U–100	1 cc=100 units.

(2) Regular insulin in all strengths is sold in two size bottles, 5 cc and 10 cc. The size of the bottle has nothing to do with the strength. If patient is stabilized on regular insulin he should be sure he knows the U strength he is taking.

c. Protamine zinc.—(1) This form of insulin is prepared by mixing regular insulin with protamine and zinc with a buffered solution. It is absorbed more slowly and exerts a blood sugar lowering effect for a longer time than the regular insulin. For this reason, often one injection daily is all that is necessary when protamine zinc insulin is used. For various reasons, some individuals do not seem to do as well on protamine zinc insulin as on ordinary insulin. For that reason patient may be stabilized on either regular insulin or protamine zinc insulin.

(2) At the present time protamine zinc insulin is marketed only in the U–40 strength and the label is white.

151. Length of time use of insulin required.—As a rule the use of insulin can never be discontinued. If the case has been thor-

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

oughly checked and it is found that insulin is required the amount may be reduced if a better tolerance to sugar is developed but it is usually the mild cases of diabetes mellitus that can safely discontinue the use of insulin or not use it at all. The popular idea that once insulin is begun it can never be stopped is erroneous. If insulin is needed it should not be stopped. Follow the medical officer's advice. He will gladly discontinue the insulin if it is safe.

152. Insulin administration.—*a.* The materials needed for insulin administration are—

(1) Insulin (keep 1 month's supply on hand).
(2) Two insulin syringes (always have an extra one for emergencies).
(3) One-half dozen rust-proof ½-inch, 24-gage hypodermic needles.
(4) One bottle medicated alcohol.
(5) One-half pound absorbent cotton.

b. If the insulin syringe designed to be kept sterile at all times in alcohol is not provided, material to boil the needles and syringe in a pan of water for 8 to 10 minutes will be needed.

c. Fill syringe and inject as taught in hospital under supervision. The site of injection should be changed with each dose. Do not inject insulin into the skin. It should be injected just beneath the skin. Do not use sites on the inner surfaces of legs, thighs, arms, and areas around the joints and blood vessels.

153. Insulin reaction.—Insulin reaction is the result of injecting too much insulin or from not eating the prescribed diet. Remember, the diet and insulin have been balanced against each other and if a meal is omitted and insulin is taken a reaction may result. Carelessness in measuring the insulin may result in administering a dose that is excessive, which may cause a reaction. A common mistake made by patients is omission of insulin if the meals are not eaten. Remember, if you become ill and cannot eat meals because of nausea, vomiting, etc., take at least one-half the regular dose of insulin and report to the medical officer at once.

154. Diabetic coma.—Diabetic coma is a condition that results from an excessive accumulation of sugar in the blood. This is due to eating an improper diet and not taking the proper amount of insulin. Diabetic coma and insulin reaction may confuse the inexperienced. The differential diagnosis below will help to determine whether an insulin reaction or diabetic coma is ensuing.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

155. Differential diagnosis.—Onset of—

Diabetic coma	*Insulin reaction*
a. History of eating too much or omitting insulin.	*a.* Symptoms come on quickly, usually within 20 minutes after insulin is administered. May get history of unusual exercises or omitting part of meal.
b. Precomatose symptoms—Gastro-intestinal:	
(1) Nausea and vomiting common.	(1) Nausea and vomiting rare.
(2) Thirst marked and dehydration present.	(2) Thirst absent. Dehydration absent.
(3) Pain in abdomen is usually present.	(3) Pain in abdomen is absent but a feeling of hunger is present.
(4) Food is repulsive.	(4) Suddenly becomes hungry.
c. Nervous symptoms:	
(1) Headache and weakness developing slowly.	(1) Marked weakness developing suddenly.
(2) General restlessness and slow development of unconsciousness.	(2) Pupils dilated, double vision, and convulsions.
(3) Muscles flabby.	(3) Convulsions, face has masklike appearance depicting fear. Patient disoriented, "shakes" and inward trembling common.
(4) Stupor and coma developing slowly.	(4) Sudden unconsciousness usually preceded by double vision and a convulsive seizure.
d. Comatose stage:	
(1) *Breathing.* Air hunger marked; slow, deep breathing; face flushed; sweet, fruity odor to breath.	Breathing may be normal or short and jerky. Frequently profuse perspiration.
(2) *Eyes.* Eyeballs are soft; vision blurred or absent.	Normal tension in eyeballs; double vision common.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Diabetic coma—Continued.	*Insulin reaction*—Continued.
(3) *Urine and blood.*	
Sugar and acetone present in urine; blood sugar markedly elevated.	Sugar and acetone not present in urine; blood sugar 60 milligrams or lower.
(4) *Temperature.*	
Normal.	Subnormal.
(5) *Blood pressure.*	
Normal or subnormal	Low blood pressure.
(6) *Recovery.*	
Recovery slow even after insulin is given in large doses; often fatal.	Immediate recovery after taking sugar or orange juice, and is never fatal.

156. Prevention of diabetic coma.—*a.* Never omit the use of insulin unless the urine is free of sugar.

b. If feeling ill, especially if there is fever, nausea vomiting, or severe pains in the abdomen—

(1) Go to bed.

(2) Call a doctor.

(3) Take a cup of tea, coffee, or both every hour. Omit at least, one-half of diet and instead take orange juice or oatmeal gruel. If the urine contains sugar, continue insulin until the doctor arrives.

(4) Get a nurse or someone to remain until well.

(5) Take a soapsuds enema.

(6) Boil a quart of water and have it ready for the doctor when he arrives.

157. Treatment of insulin reaction.—*a. Cause.*—Insulin reaction may be the result of one of the following:

(1) Too much insulin.

(2) Too long a period between administration and eating the meal.

(3) Food has not been absorbed because of indigestion, vomiting, or diarrhea.

(4) Too much exercise.

(5) Failure to eat the diet prescribed.

b. Treatment.—(1) If conscious, give—

(*a*) Sixty cc of orange juice every 15 to 20 minutes until relieved. It is usually necessary to give the orange juice but once.

(*b*) If orange juice is not available a lump or two of sugar will answer the same purpose.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) If unconscious, give—

(*a*) ½ cc of 1–1,000 solution of adrenalin chloride hypodermically. Repeat in 15 minutes if necessary.

(*b*) Karo syrup or 10 percent glucose per rectum, or—

(*c*) Glucose 10 percent solution intravenously. Persons using insulin should habitually carry a few lumps of sugar for emergency use.

158. Treatment of feet.—*a. Hygiene.*—(1) Wash the feet daily with soap and water. Dry thoroughly, especially between the toes, using pressure rather than rubbing.

(2) When thoroughly dry rub well with hydrous lanolin as frequently as necessary to keep the skin soft and supple and free from scales, but never render the feet tender.

(3) If the skin becomes too soft rub once a day with alcohol.

(4) If nails are brittle, hard, and dry, soften them by soaking in warm water ½ hour each night and apply lanolin underneath and over them and bandage loosely. Clean nails with orangewood stick. Cut the nails only in a good light and after a bath and when the feet are very clean. Cut nails straight across to avoid injury to the skin and soft tissues. If you go to a chiropodist be sure to tell him you have diabetes.

(5) Wear shoes of soft leather that are properly fitted. Be sure they are not too narrow and not too short. When the shoes are new, wear them only an hour or two a day until they are "broken" in.

(6) Use a fresh, clean pair of socks each day.

(7) If over 45 years of age do not apply heat in any form to feet. Do not use electric pads or hot water bottles or hot lights.

b. Corns and callosities.—(1) Wear shoes which fit properly and do not cause any pressure.

(2) Soak feet in warm, not hot, soapy water. Rub off with gauze or file off the dead skin on and about callus or corn. Do not tear it off. A corn may be painted at night with—

Salicylic acid	1 dram.
Collodion	1 ounce.

Repeat the painting for four nights and then, after soaking in warm water, the corn will come off easily. If it does not come off easily without bleeding, repeat the treatment for four more nights.

(3) Do not cut corn or callosities.

(4) Prevent calluses under ball of feet by—

(*a*) Exercises such as stretching the toes 20 times a day.

(*b*) Finishing each step on the toes and not on the ball of the foot.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Poor circulation (cold feet).—(1) Exercise: Bend the foot up and down as far as it will go six times. Then describe a circle to the left with the foot ten times and then to the right. Repeat morning, noon, and night.

(2) Massage the feet with lanolin or cocoa butter.

(3) Don't wear circular garters.

(4) Don't sit with the knees crossed.

159. Abrasions of skin.—*a.* Proper first-aid treatment is of the utmost importance even in apparently minor injuries. Consult the medical officer immediately.

b. Avoid strong irritating antiseptics such as iodine.

c. As soon as possible after injury some surgeons recommend the application of sterile gauze saturated in medicated alcohol or hexylresorcinol (S. T. 37). Sterile gauze in sealed packets may be purchased at drug stores.

d. Elevate the part as much as possible until recovery has taken place and avoid using the foot.

e. Consult your doctor for any redness, pain, swelling, or other evidence of inflammation.

160. Surgery.—Many people still think that those suffering from diabetes mellitus should not be submitted to surgery. This is wrong. Such patients may be operated without any unusual risk if they have been properly prepared. Even emergency operations may be performed with safety if instructions are followed regarding diet and insulin. It is important to you that you inform any doctor who may be called in that you have diabetes mellitus.

161. Food.—*a. Beverages.*—If coffee or tea are liked they may be taken but it is best to use not more than three cups of either per day. Cream served with meals may be used in the coffee or tea but sugar should be omitted.

b. Condiments.—Pepper, salt, spices, and vinegar may be used as always unless otherwise instructed.

c. Special foods.—(1) Foods advertised as special diabetic foodstuffs are unnecessary. The composition of these foods is more or less uncertain. It is much better to use simple foods in the prescribed quantities properly prepared. Regardless of advertisement stating certain special foodstuffs are safe for the person suffering from diabetes, remember that all foods are dangerous unless they are taken in prescribed amounts.

(2) It is also important to remember that recipes requiring the use of several foods are to be regarded with suspicion. Do not use any of these unless they have been recommended by the medical officer

Digitized by Google Original from UNIVERSITY OF CALIFORNIA

balancing your diet and he has made proper allowance in the diet for them.

d. Food values.—In order to do extension work on the daily menus which are furnished it will be necessary to have reference to a table of food values. They will not be furnished in these instructions as it is expected the patient will provide himself with a diabetic manual and in it will be found a table of food values adequate for all practical purposes.

e. Practical data.—(1) A calorie is a heat unit and it represents the quantity of heat necessary to raise 1 kilogram of water 1° C. or about 1 pound of water 4° F.

1 gram of protein equals four calories.
1 gram of carbohydrate equals four calories.
1 gram of fat equals nine calories.

(2) To figure the total sugar content in your diet, remember—

(*a*) All carbohydrates are 100 percent sugar.
(*b*) All protein is 58 percent sugar.
(*c*) All fat is 10 percent sugar.

It is the sugar content of the diet that aids so markedly in the utilization of fat and this is known as the antiketogenic content of the diet.

(3) The fat content is obtained as follows:

(*a*) Carbohydrate produces no fat.
(*b*) Protein produces 46 percent fatty material.
(*c*) Fat produces 90 percent fat.

This is known as the ketogenic material of the diet and the proper ratio between the two is not more than 1 A. K. to 1.5 K. Often it is advisable to reduce this ratio to 1 A. K. to 1 K. With the introduction of the relatively high carbohydrate diet this ratio is automatically taken care of.

(4) Maintenance diet is from 30–35 calories per kilo of proper weight, according to occupation, age, complicating diseases, etc.

(5) Protein is given at the rate of 1 gram per each kilo of proper weight of patient as a rule, except in children, when it may be increased to 2½ times that amount.

(6) The carbohydrate allowance is usually kept between the range of 100 to 200 grams. In computing the number of grams of carbohydrate the number of calories allowed for protein is deducted from the total number of calories. The remaining calories are distributed on the basis of 1 to 1½ grams of carbohydrate for each gram of fat.

(7) The fat allowance is rarely above 150 grams and usually not above 100 grams.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

f. Menus.—After the case has been studied patient will be put on a maintenance diet. This means a diet that will properly sustain at occupation. When this diet is started patient will be given a typewritten copy of each menu. These menus have already been converted into actual weights and measurements. Patient should save all these menus and insert the ones that appeal most on pages provided for that purpose. They will be very helpful to those preparing the diet after leaving the hospital. Extension and conversion of diets into weights, measurements, and menus is encouraged and while in hospital patient will become proficient if an earnest effort is made. The menus furnished have been carefully checked and are accurate. They should be preserved and used.

162. Materials required.—Procure the following and have ready for use when discharged from the hospital:

Insulin (1 month's supply).
Two insulin syringes.
Six rustproof, ½-inch, 24-gage hypodermic needles.
One bottle medicated alcohol.
One-half pound absorbent cotton.
One dietetic scales.
One diabetic manual.
One bottle Benedict's qualitative solution.
Six test tubes.
One test tube holder.
One test tube brush.
One medicine dropper (long).

163. Sample forms for menus and daily urinalysis and blood sugar records.—These forms should be page size in pamphlet.

a. Selected menus.

MAINTENANCE DIET

(Insert here only maintenance diet menus.)

Monday Tuesday

(Pamphlet should contain pages sufficient to incorporate diet menus for 14 days.)

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Urinalysis record.

DAILY URINALYSIS

(Enter date urine is positive for sugar.)

Urine should be examined daily, using early morning specimen.

Date ------	% ----	Date ------	% ----
------	% ----	------	% ----
------	% ----	------	% ----
------	% ----	------	% ----
------	% ----	------	% ----
------	% ----	------	% ----
------	% ----	------	% ----
------	% ----	------	% ----
------	% ----	------	% ----
------	% ----	------	% ----
------	% ----	------	% ----

c. Blood sugar record.

BLOOD SUGAR

(Record here the date and finding of each blood sugar determination.)
Have blood sugar determination made—

Date ------	Blood sugar ------	Date ------	Blood sugar ------
------	------	------	------
------	------	------	------
------	------	------	------
------	------	------	------
------	------	------	------
------	------	------	------
------	------	------	------
------	------	------	------
------	------	------	------
------	------	------	------

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION V

TEST DIETS

Paragraph
Ewald test meal 164
Gastric fractional analysis with oatmeal 165
Galactose tolerance test 166
Sugar tolerance test 167
Menu for use in cholecyptography 168

164. Ewald test meal.

Water or tea, 1½ glasses.
Toast, 60 grams (2 slices).

If desired may substitute 160 grams farina or sieved oatmeal for the toast.

165. Gastric fractional analysis with oatmeal.—*a.* To 1 quart of water add 2 teaspoonfuls oatmeal.

b. Boil down to 1 pint and salt to taste.

c. Strain through a cloth.

d. Patient takes this with gastric fractional tube in the stomach after fasting overnight and fasting contents have been extracted. Be sure stomach is empty before giving oatmeal.

166. Galactose tolerance test.

Fast overnight.
Galactose, 40 grams.
Water, 500 cc.
Lemon juice to taste.

a. Procedure.—Take the above at 7:00 AM and collect urine hourly for 5 hours during which time water may be taken freely. Do not take any food. Mix all urine and test with Benedict's quantitative solution and calculate total amount of sugar excreted.

b. Interpretation.—Normally the liver will utilize 37 to 40 grams of galactose during the 5 hour period. Therefore, if more than 3 grams of sugar is found in the urine, pathology of the liver is present. This is a good test to differentiate toxic or infectious jaundice from obstructive or hemolytic jaundice.

167. Sugar tolerance test.

Glucose, 1 gram per kilo of body weight.
Orange juice, 200 cc.

Omit breakfast and give the above and take blood and urine specimens as outlined in the test.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

168. Menu for use in cholecyptography.—*a. Supper.*—Evening before dye is taken:

Baked potato.
Toast without butter.
Puréed fruit.
Tea.

Do not permit any food with this meal that contains fat.

b. Breakfast.—None.

c. Dinner.

Beef broth, enriched with butter.
Bread.
Butter, 2 patties.
Bacon, 3 slices.
Cream, ½ glass.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

CHAPTER 5

MENUS

Paragraphs
SECTION I. Construction 169–177
II. Liquid, light, and regular diets 178–179
III. Therapeutic and special diet sample menus 180–195

SECTION I

CONSTRUCTION

Paragraph
Mess operation 169
Combination of foods to form menu 170
Carbohydrate content of fruits and vegetables 171
Low fat foods 172
High calcium content foods 173
High carbohydrate content foods 174
High fiber content foods 175
High roughage or cellulose content foods 176
Gas-forming foods 177

169. Mess operation.—*a.* In the operation of a mess with a fixed allowance, care must be exercised in all departments if satisfactory meals are to be served. It is not the purpose to describe herein the proper economical operation of a satisfactory mess. A good purchase system properly supervised, adequate storage, and carefully supervised issues are primary steps of great importance. To this should be added another extremely important step that is often lacking. It is the proper organization of the kitchen personnel into competent groups necessary to man the various messes in operation. The mere organization is not enough. Somebody must see that there is efficient operation of these groups, and that food is not wasted. It is realized that some waste is inevitable in all kitchens but it can be kept to a minimum. Someone must plan suitable, well-balanced diets. This someone can be none other than the person in charge of the mess. Food having been purchased, stored, and issued properly is only the beginning. It now becomes a real duty to effect economy in the various departments of the mess and see that the food is properly prepared.

b. In a general hospital there are several messes all operated under one head. Some of these messes require more elaborate menus because the allowances for food differ. Besides this, there are many types of diets to be prepared for patients throughout the hospital. It is important in planning menus so to plan them that some of the liquid, light, soft, and special diets can be prepared from the same foods used

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

in the regular or full diets. Diets must be planned so that food not used in one mess can be readily utilized in another. Only the best or choice foods should be purchased, for it is the most economical in the long run.

c. The method of combining various articles of the diet to form the menu is indicated in paragraph 170. It must be remembered that even if all the food purchased is the best, it can be spoiled by using poor combinations of items. It is for this reason that the table is provided. Following this outline will be found many menus. Many of these have been constructed and the critical might believe too many are listed. The purpose of constructing them at all is to furnish to those with less experience in this field a working basis. Many hospitals begin with partially trained personnel and this is especially true of the mess sergeants and mess officers. To these, extensive listing of menus should be most welcome. Special attention is called to liquid, light, and regular diets for patients on both enlisted and officer status. The date is quoted on these to show how one diet dovetails into the other and will be of great value to the mess officer. This prevents extra purchases and is a great saving financially. The group of therapeutic diets is believed to be sufficiently large to handle the most common cases. These too will be of most value in new or smaller hospitals where the personnel is being trained or possibly where the hospital is too small to justify dietitians. In such places, it is just as important the patient receive the proper diet as it is in the larger institutions. Any good cook can prepare the food if he has the menus. It is therefore felt that the space devoted to carefully planned house and therapeutic diets will be valuable to mess sergeants and mess officers, especially those with limited training in this field.

d. By following this outline and method of preparing menus assurance can be given that patients will have served to them the proper diet and the meals will be distinctly better at a lower cost.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

170. Combination of foods to form menu.

Soup	Main dish	Starchy food	Watery vegetable	Salad	Dessert
Bean. Split pea. Vegetable.	Beef, boiled. Beef, roasted. Beef, loaf. Sirloin steak. Porterhouse steak. Hamburger steak. Swiss steak. Round steak.	Sweet potatoes. Irish potatoes. Hominy. Rice. Lima beans.	String beans. Cabbage. Greens. Spinach. Onions.	Tomato, beet, or grated carrot on lettuce. Artichokes. Coleslaw.	Cake. Pineapple pie. Pumpkin pie. Raisin pie.
Green pea. Cream tomato. Chicken rice. Clam broth. Strained vegetable.	Roast chicken. Fried chicken. Broiled chicken. Chicken fricasse. Chicken pie. Chicken salad. Turkey.	Creamed potatoes. Mashed potatoes. Baked potatoes. Rice. Grits. Mushrooms. Sweet potatoes.	Brussels sprouts. Asparagus. Buttered beets. Broccoli. Peas. Cauliflower. Green corn. Diced carrots. String beans. Squash.	Tomato-lettuce. Lettuce. Perfection. Fruit gelatin. Combination. Waldorf.	Sliced fruit. Ice cream. Cake. Pie.
Consomme. Oyster. Lentil.	Duck, roasted.	Riced potatoes. Candied sweet potatoes. Boiled rice. Wild rice.	Creamed onions. Buttered beets. Spinach. Green peas. String beans. Buttered carrots.	Fruit. Vegetable.	Sliced fruit. Ice cream. Cake. Pie.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Combination of foods to form menu—Continued.

Soup	Main dish	Starchy food	Watery vegetable	Salad	Dessert
Creamed celery. Celery. Split pea. Fish chowder.	Fish, fried. Fish, baked. Fish, boiled.	Baked potato. Browned sweet potato. Stewed lima beans.	Green peas. Broccoli. Boiled spinach. Green corn.	Fruit. Vegetable.	Lemon pie. Rhubarb pie. Apple pie. Mince pie.
Vegetable. Tomato. Split pea. Bean.	Lamb roast. Lamb chops. Lamb stew.	Pan-roasted potatoes. Parsley potatoes. Boiled rice. Hashed brown potatoes. Macaroni au gratin. Hominy. Dumplings.	Artichokes. Green peas. Asparagus. Stewed tomatoes. Buttered beets.	Tomato. Grapefruit and orange. Sliced pineapple. Grated carrots with raisins.	Apple dumplings. Plum pudding. Bread pudding. Ice cream. Lemon pie.
Consomme. Tomato bouillon. Chicken bouillon. Clam broth.	Pork roast. Pork chops. Ham. Spare ribs.	Candied sweet potatoes. Hominy. Grits. Fried corn meal mush. Mashed potatoes.	Baked squash. Buttered turnips. Spinach. Chard. Cabbage. Sauerkraut. Brussels sprouts. Buttered beets.	Cole slaw. Fruit. Lettuce hearts. Sliced tomato. Waldorf.	Plain cake. Fruit tapioca. Sliced fruit.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Vegetable. Tomato.	Roast Veal. Veal cutlets. Veal chops. Veal loaf. Veal stew.	Mashed potatoes. Hashed brown potatoes. Baked potato.	String beans. Eggplant. Brussels sprouts. Asparagus. Summer squash. Buttered beets. Green peas.	Combination. Lettuce with French dressing. Perfection. Pickled beets.	Vanilla ice cream. Spanish cream. Sliced fruit. Chocolate pudding with cream. Tapioca pudding.
Creamed pea. Creamed celery. Potato. Vegetable. Pepper pot.	Baked beans and bacon.	Baked potatoes. Hashed brown potatoes. Boiled potatoes. French fried potatoes.	Cauliflower au gratin. Spinach. Broccoli. Sliced tomatoes.	Lettuce. Potato. Cole slaw. Combination.	Apple cobbler. Berry pie. Gingerbread. Tapioca pudding. Fresh fruit.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

171. Carbohydrate content of fruits and vegetables (Cir. No. 549, U. S. Department of Agriculture) (see also table I, app. I). — *a. Group 1 (3 percent carbohydrate).*

Asparagus, fresh.
Asparagus, canned, including sieved.
Asparagus-bean sprouts, fresh.
Bamboo shoots, fresh.
Basella, fresh.
Beans, green and wax, canned, including sieved.
Bean sprouts (from mung beans), fresh.
Beet greens, fresh.
Broccoli, fresh.
Cabbage, fresh.
Cabbage, Chinese, fresh.
Cauliflower, fresh.
Cauliflower, canned.
Celery, fresh.
Celery, canned, sieved.
Chard, fresh.
Chayote, leaves, fresh.
Chicory, leaves, fresh.
Cornsalad, fresh.
Cress, garden, fresh.
Cucumbers, fresh.
Dock, fresh.
Endive, fresh.
Escarole, fresh.
Fennel, fresh.
"French endive," fresh.
Lettuce, fresh.
Mustard greens, fresh.
Orach, garden, fresh.
Orach, Peruvian, fresh.
Pokeberry or poke shoots, fresh.
Purslane, fresh.
Quinoa, fresh.
Radishes, fresh.
Rhubarb, fresh.
Rhubarb, canned, w. p.
Rutabaga tops, fresh.
Sauerkraut, fresh.
Sauerkraut, canned.
Seakale, fresh.
Sorrel, fresh.
Spinach, fresh.
Spinach, canned, including sieved.
Spinach, New Zealand, fresh.
Squash, summer, fresh.
Taro shoots, fresh.
Tomatoes, fresh.
Tomatoes, canned.
Tomato juice, canned.
Turnip tops, fresh.
Udo shoots, fresh.
Vegetable marrow, fresh.
Vinespinach, fresh.
Water cress, fresh.

b. Group 2 (6 percent carbohydrate).

Amaranth, fresh.
Anserine, fresh.
Beans, hyacinth-beans, pods, fresh.
Beans, scarlet runner, green pods.
Beans, snap, green and wax, fresh.
Blackberries, canned, w. p.
Borage, fresh.
Cantaloupe.
Carrots, canned, including sieved.
Celery root or celeriac, fresh.
Chayote, fruit, fresh.
Chives, fresh.
Collards, fresh.
Dandelion greens, fresh.
Dasheen, leaves and stems, fresh.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Group 2 (6 percent carbohydrate)—Continued.

Eggplant, fresh.
Gooseberries, canned, w. p.
Jew's mallow, fresh.
Kale, fresh.
Kohlrabi, fresh.
Lambsquarters, fresh.
Leeks, fresh.
Melons, honeydew, casaba and Spanish, fresh.
Muskmelons, fresh.
Nettle, fresh.
Okra, fresh.
Onions, Welsh, fresh.
Palmetto or palmetto cabbage, fresh.
Parsley, fresh.
Peaches, canned, w. p.
Peppers, green and red, fresh.
Pimientos, canned.
Plums, excluding prunes, canned, w. p.
Pumpkin, fresh.
Pumpkin and squash, canned.
Salad-rocket, fresh.
Soy beans, green, shelled, fresh.
Soy bean sprouts, fresh.
Squash, cushaw, fresh.
Squash, winter, fresh.
Strawberries, fresh.
Strawberries, canned, w. p. and j. p.
Strawberry juice, fresh.
Sweet potato tops, fresh.
Taro, leaves and stems, fresh.
Turnips, fresh.
Watermelon, fresh.

c. Group 3 (9 percent carbohydrate).

Applesauce, canned, unsweetened.
Apricots, canned, w. p.
Artichokes, globe or French, fresh.
Asparagus-beans, pods, fresh.
Beets, fresh.
Beets, canned, including sieved.
Blackberries, fresh.
Blackberries, canned, j. p.
Blackberry juice, fresh.
Blueberries, canned, w. p. and j. p.
Brussels sprouts, fresh.
Cape-gooseberry, fresh.
Carrots, fresh.
Cherries, red and white, canned, w. p.
Chervil, fresh.
Cranberries, fresh.
Currants, fresh.
Currant juice, fresh.
Gingerroot, fresh.
Gooseberries, fresh.
Grapefruit, fresh.
Grapefruit, canned, w. p. and j. p.
Grapefruit juice, fresh.
Groundcherry, fresh.
Lemons, fresh.
Lemon juice, fresh.
Lemon juice, canned.
Limes, fresh.
Limes, sweet, fresh.
Lime juice, fresh.
Loganberries, canned, w. p.
Loganberry juice, fresh.
Mamey, fresh.
Mammee apple, fresh.
Onions, fresh.
Oranges, mandarin type, fresh.
Orange juice, mandarin type, fresh.
Papayas, fresh.
Parsley, Hamburg, fresh.
Peaches, canned, j. p.
Pears, canned, w. p.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Group 3 (9 percent carbohydrate)—Continued.

Peas, fresh (very young).
Peas, canned, including sieved.
Peas, sugar peas, green pods, fresh.
Poha, fresh.
Prickly pear, fresh.
Prunes, canned, w. p.
Quince juice, fresh.
Raspberries, canned, w. p.
Rutabagas, fresh.
Tangerines, fresh.
Tangerine juice, fresh.

d. Group 4 (12 percent carbohydrate).

Apple juice, fresh.
Applesauce, canned, j. p.
Apricots, fresh.
Apricots, canned, j. p.
Apricots, canned, sieved, unsweetened.
Beans, lima, green, canned.
Cherries, sour, fresh.
Cherries, red and white, canned, j. p.
Crab apple juice, fresh.
Feijoa, fresh.
Figs, canned, w. p.
Grapefruit juice, canned, unsweetened.
Grapes, canned, w. p.
Guavas, fresh.
Kumquats, fresh.
Lambsquarters, Algerian, fresh.
Loganberries, fresh.
Loganberries, canned, j. p.
Loquats, fresh.
Mulberries, fresh.
Oranges, fresh.
Oranges, Seville or sour, fresh.
Orange juice, fresh.
Orange juice, canned.
Peaches, fresh.
Peaches, canned, sieved, unsweetened.
Peach juice, fresh.
Pears, canned, j. p.
Pineapple, fresh.
Pineapple, canned, w. p.
Pineapple juice, fresh.
Pineapple juice, canned.
Pitanga, fresh.
Plums, excluding prunes, fresh.
Quinces, fresh.
Raspberries, fresh.
Raspberries, canned, j. p.
Raspberry juice, fresh.
Rose apple, fresh.
Soy beans, dry seeds.
Surinam-cherry or pitanga, fresh.

e. Group 5 (15 percent carbohydrate).

Apples, fresh.
Beans, broadbeans, green, shelled.
Beans, red kidney, canned.
Black salsify, fresh.
Blueberries, fresh.
Blueberry juice, fresh.
Cherries, black, canned, w. p.
Corn, fresh (very young).
Grapes, fresh.
Huckleberries, fresh.
Huckleberry juice, fresh.
Jerusalem artichokes, tubers, fresh.
Mangos, fresh.
Nectarines, fresh.
Oca, fresh.
Onions, top onions, fresh.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

e. Group 5 (15 percent carbohydrate)—Continued.

Papaws, fresh.
Parsnips, fresh.
Pears, fresh.
Peas, fresh (medium mature).
Pineapple, canned, j. p.
Salsify, fresh.
Shallot, fresh.
Vegetable oyster or salsify, fresh.

f. Group 6 (18 percent carbohydrate).

Beans, baked, canned.
Carissa or Natal plum, fresh.
Chayote, roots, fresh.
Cherries, sweet, fresh.
Cherries, black, canned, j. p.
Corn, sweet, canned.
Crab apples, fresh.
Figs, fresh.
Garlic, fresh.
Grandadilla, purple, fresh.
Grape juice, fresh or bottled.
Haws, scarlet, fresh.
Horseradish, fresh.
Natal plum, fresh.
Passion fruit, fresh.
Persimmons, Japanese.
Pomegranates, fresh.
Potatoes, fresh.
Prunes, canned, j. p.
Prune juice, canned.
Sapodilla, fresh.
Sapota, fresh.
Waternut, tuber, fresh.

g. Miscellaneous group (high carbohydrate).—Percentage is given in nearest whole number and fractions omitted.

Apples, dried, 73.
Apricots, dried, 67.
Asparagus beans, dried, 62.
Bananas, fresh, 23.
Bananas, dried, 71.
Beans, broadbeans, dry, 58.
Beans, kidney or common, dry, 62.
Beans, lima, fresh, 62.
Beans, lima, dry, 66.
Beans, mung, dry, 63.
Black-eyed peas, 62.
Burdock, fresh, 23.
Cherimoya, fresh, 29.
Cherries, marischino, canned, 60.
Chickpeas, dry, 61.
Corn, fresh (medium mature), 22.
Corn, fresh, old, 27.
Corn, dried, 68.
Cowpeas, fresh, green shells, 23.
Cowpeas, dry, 62.
Figs dried, 68.
Fruits canned in syrup (all kinds), 18 to 21.
Garbanzo peas, dry, 61.
Jujubes, fresh, 34.
Jujubes, dry, 76.
Lentils, dry, 60.
Litchi fruit, dried, 70.
Marmalade plum, fresh, 31.
Peaches, dried, 69.
Pears, dried, 72.
Peas, fresh, matured, 25.
Peas, dry, whole, 60.
Peas, dry split, 62.
Persimmons, native, fresh, 34.
Plantain or baking banana, fresh, 33.
Prunes, fresh, 21.
Prunes, canned, sieved, 28.
Prunes, dried, 71.
Raisins, dried, 71.
Sapote, fresh, 31.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

g. Miscellaneous group—Continued.

Sugar apple, fresh, 23.
Sweetpotatoes, fresh, 28.
Sweetpotatoes, canned, 31.
Sweetsop, fresh, 23.
Taro, tubers, fresh, 22.
Tomato catsup, 25.
Yams, winged, fresh, 24.

172. Low fat foods.

Apricots.
Candy.
Celery.
Consomme.
Currants.
Endive.
Figs.
Fruit juice.
Gooseberries.
Grapefruit.
Grape juice.
Honey.
Lemon juice.
Molasses.
Muskmelon.
Nectarines.
Orange juice.
Plums.
Radishes.
Raspberries.
Sugar.
Tapioca.

173. High calcium content foods.

Almonds.
Boston brown bread.
Beans, kidney, dried.
Buttermilk.
Cauliflower.
Caviar.
Cocoa.
Clams.
Dandelion greens.
Endive.
Egg yolk.
Figs.
Hazel nuts.
Lentils.
Molasses.
Swiss chard.
Syrup.
Turnip tops.

174. High carbohydrate content foods.

Bananas.
Breads, bean flour.
Chestnuts.
Chocolate.
Coconut.
Corn flakes.
Cow peas, dried.
Currants.
Crackers.
Corn meal.
Cornstarch.
Candy.
Dates.
Dried fruits.
Flours.
Figs.
Glucose.
Honey.
Junket powder.
Jelly.
Jams.
Lentils.
Lima beans.
Macaroni.
Marmalade, Litchi fruits.
Milk, sweetened (condensed or evaporated).
Maple syrup.
Molasses.
Prunes.
Pineapple (canned).
Potatoes.
Plums.
Peanuts.
Prunes, dried.
Pretzels.
Raisins.
Rice.
Rusk.
Sweet potatoes.
Syrups.
Short bread.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

175. High fiber content foods (percent of edible portion).—Items listed contain 3 percent or more fiber. Whole numbers used.

Apples, dried, 5.
Apricots, dried, 3.
Beans, broadbeans, dry, 7.
Beans, common, dry, 4.
Blackberries, fresh, 4.
Cherimoya, 4.
Chickpeas, dried, 4.
Coconut, shredded, 4.
Corn germ commercially milled, 5.
Cotton seed flour, 4.
Cowpeas, dry, 4.
Currants, fresh, 3.
Feijoa, 3.
Figs, fresh, 6.
Ground cherry, 3.
Guavas, 4 to 6.
Hazelnuts, 3.
Jujube, dried, 3.
Kumquats, fresh, 4.
Lentils, whole, 3.
Litchi fruits, 3.
Olives, ripe, Greek process, 4.
Peanut flour, 4.
Dried pears, 6.
Peas, dried, whole, 5.
Pomegranate, 4.
Raspberries, fresh, black, 4.
Rice bran, 11.
Sapota, fresh, 4.
Sesame, whole seed, 3.
Soy bean meal, 5.
Wheat bran flakes, 3.
Wheat bran, crude, 10.
Wheat bran, washed, 17.
Wheat bran, packaged, 8.

176. High roughage or cellulose content foods.

Apples, whole.
Apricots, dried.
Asparagus.
Beans.
Bran bread.
Bran muffins.
Brussels sprouts.
Cabbage.
Cantaloupe.
Cauliflower.
Celery.
Corn.
Dates.
Endive.
Graham bread.
Grapes.
Lentils.
Lettuce.
Nuts.
Onions.
Peaches, whole.
Pears, whole.
Plums.
Prunes.
Radishes.
Raisins.
Rice, unpolished.
Rolled oats.
Romaine.
Spinach.
String beans.
Swiss chard.
Turnips.
Vegetables (all leafy ones).
Wheat bran.
Whole barley.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

177. Gas-forming food.—*a. Beverages.*
Carbonated drinks.
Sweetened drinks.
Malt drinks.
Wines.
All soft drinks.
b. Dairy products.—All fermented cheese.
c. Desserts.
Candy.
Honey.
Jams.
All sugars.
All sweet foods.
d. Fruits.
Apples, fresh.
Cantaloupe.
Raisins.
Watermelon.
e. Soups.
Broths, meat.
Stock soups.
All soups containing gas-forming vegetables.
f. Vegetables.
Beans, dry.
Broccoli.
Brussels sprouts.
Cabbage.
Cauliflower.
Cucumbers.
Garlic.
Lentils.
Lettuce.
Onions.
Peas, dried.
Peppers.
Radishes.
Swiss chard.
Turnips.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION II

LIQUID, LIGHT, AND REGULAR DIETS

Paragraph
General mess sample menus 178
Officers' mess sample menus 179

178. General mess sample menus.—*a. Friday.*—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Orange sherbet. Coffee, tea, or milk.	Broth. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Kadota figs. Cream of wheat. Soft-boiled eggs. Toast and butter. Coffee, tea, or milk.	Pepper pot soup, breadsticks. Baked fresh fish, butter sauce. Creamed parsley potatoes. Spinach. Orange sherbet. Toast and butter. Coffee, tea, or milk.	Split pea soup. Creamed sweetbreads. Mashed potatoes. Buttered lima beans. Sliced fruit. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Kadota figs. Dry cereal. Soft-boiled eggs. French diced potatoes. Toast and butter. Coffee and milk.	Pepper pot soup, breadsticks. Fried scallops, tartar sauce. Creamed parsley potatoes. Spinach. Pumpkin pie. Bread and butter. Coffee and milk.	Baked veal loaf, Spanish sauce. Mashed potatoes. Cole slaw, sour cream dressing. Sliced fruit. Bread and butter. Coffee and milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Saturday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Apple sauce. Cooked cereal. Scrambled eggs. Toast and butter. Jam. Coffee, tea, or milk.	Lentil soup. Broiled lamb chops. Candied sweet potatoes. Buttered peas and carrots. Apricot Bavarian cream. Toast and butter. Coffee, tea, or milk.	Mock turtle soup. Creamed eggs. Baked parsnips. Buttered beets. Gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Fresh apples. Cooked cereal. Corned beef hash. Toast and butter. Jam. Coffee and milk.	Lentil soup, croutons. Baked Virginia ham, raisin sauce. Candied sweet potatoes. Buttered peas and carrots. Bread pudding, strawberry sauce. Bread and butter. Coffee and milk.	Beef pot pie. Baked parsnips. Wilted lettuce. Cherry cobbler. Bread and butter. Coffee and milk.

c. Sunday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Chicken soup. Vanilla ice cream. Coffee, tea, or milk.	Broth. Fruit juice. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Pineapple juice. Flaked wheat. Boiled eggs. Crisp bacon. Jelly. Toast and butter. Coffee, tea, or milk.	Chicken noodle soup. Chicken fricasse. Whipped potatoes. Baked eggplant. Asparagus salad, mayonnaise. Vanilla ice cream. Toast and butter. Coffee, tea, or milk.	Cream tomato soup. Baked potatoes. Spinach with egg. Sliced oranges. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Pineapple juice. Dry cereal. Fried eggs. Crisp bacon. Toast and butter. Jelly. Coffee and milk.	Chicken noodle soup. Fried chicken, brown gravy. Whipped potatoes. Corn on the cob. Asparagus salad, mayonnaise. Special ice cream. Macaroons. Bread and butter. Coffee and milk.	Cold assorted meats. Sliced American cheese. Oranges. Chocolate fudge. Bread and butter. Coffee and milk.

d. Monday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Gelatin dessert. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.

(2) *Light.*

Stewed prunes. Cooked cereal. Poached eggs. Toast and butter. Jam. Coffee, tea, or milk.	Barley soup. Roast leg of lamb, gravy. Fluffed potatoes. Scalloped tomatoes. Tapioca cream pudding. Toast and butter. Coffee, tea, or milk.	Oxtail soup. Buttered asparagus tips on toast. Scalloped potatoes. Mashed squash. Baked apples with whipped cream. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Stewed prunes. Cooked cereal. Pork patties. Fried potatoes. Toast and butter. Jam. Coffee and milk.	Barley soup, croutons. Baked pork and beans. Scalloped tomatoes. Sliced pickles and onions. Cole slaw. Hot cornbread. Fresh apples. Bread and butter. Coffee and milk.	Breaded pork chops, cream gravy. Scalloped potatoes. Sliced tomatoes. Sweet buns. Bread and butter. Coffee and milk.

e. Tuesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Sliced grapefruit. Oatmeal. Coddled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Vegetable soup, bread-sticks. Purée corn timbale. Mashed potatoes. Creamed carrots. Sliced pears. Sugar cookies. Toast and butter. Coffee, tea, or milk.	Tomato bouillon. Creamed tuna fish on toast. Baked potatoes. Artichokes with hollandaise sauce. Cottage cheese salad. Sliced fruit. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Sliced grapefruit. Dry cereal. Hot cakes. Crisp bacon. Maple syrup. Toast and butter. Coffee and milk.	Vegetable soup, bread-sticks. Swiss steak, brown gravy. Mashed potatoes. Creamed carrots. Butterscotch pie. Bread and butter. Coffee and milk.	Grilled hamburger, brown gravy. Fried potatoes. Cottage cheese-pineapple salad, mayonnaise. Sliced fruit. Bread and butter. Coffee and milk

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

f. Wednesday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.	Broth. Vanilla ice cream. Coffee, tea, or milk.

(2) *Light.*

Bananas. Cooked cereal. Scrambled eggs. Toast and butter. Coffee, tea, or milk.	English broth. Broiled small steaks. Boiled potatoes. Buttered Italian squash. Fruit gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.	Chicken gumbo soup, crackers. Creamed chicken on toast. Steamed rice. Buttered peas. Peach ice cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Bananas. Cooked cereal. Scrambled eggs. Hot biscuits. Honey. Toast and butter. Coffee and milk.	English broth, croutons. Boiled beef, horseradish gravy. Boiled potatoes. Boiled rutabagas. Fruit gelatin with whipped cream. Bread and butter. Coffee and milk.	Chicken a la king on toast. Steamed rice. Hearts of lettuce, French dressing. Doughnuts. Bread and butter. Coffee and milk.

g. Thursday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Fruit juice. Coffee, tea, or milk.	Consomme. Vanilla ice cream. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Oranges. Flaked wheat. Poached eggs. Toast and butter. Coffee, tea, or milk.	Bean soup, breadsticks. Roast lamb, brown gravy. Mint jelly. Whipped potatoes. Buttered peas. Baked peaches with marshmallows. Toast and butter. Coffee, tea, or milk.	Consomme. Cottage cheese timbale. Creamed potatoes. Buttered beets. Vanilla ice cream. Ladyfingers. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Oranges. Dry cereal. French toast, syrup. Link sausages. Toast and butter. Coffee and milk.	Bean soup, breadsticks. Roast lamb, brown gravy. Mint jelly. Whipped potatoes. Buttered peas. Nectarine pie. Bread and butter. Coffee and milk.	Macaroni and cheese. Hungarian goulash. Combination salad, mayonnaise. Jelly layer cake. Bread and butter. Coffee and milk.

h. Friday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.	Clear soup. Caramel custard. Coffee, tea, or milk.

(2) *Light.*

Baked apples. Oatmeal. Coddled eggs. Toast and butter. Coffee, tea, or milk.	Clam chowder. Scrambled eggs and brains. Scalloped potatoes. String beans. Rice pudding, chocolate sauce. Toast and butter. Coffee, tea, or milk.	Vegetable chowder. Creamed chicken on toast. Steamed rice. Broccoli with hollandaise sauce. Sliced fruit. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Baked apples. Dry cereal. Soft-boiled eggs. French diced potatoes. Toast and butter. Coffee and milk.	Clam chowder, croutons. Fried silver smelts, tartar sauce. Scalloped potatoes. String beans. Rice pudding, chocolate sauce. Bread and butter. Coffee and milk.	Breaded veal cutlets, cream gravy. French baked potatoes. Sweet relish. Sliced fruit. Bread and butter. Coffee and milk.

i. Saturday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.	Strained soup. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Stewed rhubarb. Cooked cereal. Poached eggs. Toast and butter. Coffee, tea, or milk.	Split pea soup. Broiled lamp chops. Baked potatoes. Creamed celery root. Steamed date pudding with lemon sauce. Toast and butter. Coffee, tea, or milk.	Julienne soup. Creamed tuna fish. Mashed sweet potatoes. Baked squash. Baked apple with whipped cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Stewed rhubarb. Cooked cereal. Fried ham. Fried potatoes. Toast and butter. Jam. Coffee and milk.	Split pea soup, croutons. Roast beef, brown gravy. Baked potatoes. Swiss chard. Steamed date pudding with lemon sauce. Bread and butter. Coffee and milk.	Codfish balls, tomato sauce. Baked squash. Lettuce and cottage cheese-pineapple salad, mayonnaise. Peach cobbler. Bread and butter. Coffee and milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

j. Sunday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Orange ice. Coffee, tea, or milk.	Bouillon. Custard. Coffee, tea, or milk.

(2) *Light.*

Tomato juice. Flaked wheat. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Cream tomato soup. New York cut steak. Mashed potatoes. Buttered asparagus tips. Vanilla ice cream. Sugar cookies. Toast and butter. Coffee, tea, or milk.	Bouillon. Scalloped sweetbreads. Baked potatoes. Glazed fresh carrots. Custard bread pudding. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Tomato juice. Dry cereal. Fried eggs. Crisp bacon. Toast and butter. Coffee and milk.	Cream tomato soup, crackers. New York cut steak, brown gravy. Mashed potatoes. Buttered asparagus. Crab cocktail. Special ice cream. Sugar cookies. Bread and butter. Coffee and milk.	Cold sliced roast beef. Sliced American cheese. Potato salad. Fresh apples. Coconut fudge. Bread and butter. Coffee and milk.

k. Monday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Consomme. Fruit juice. Coffee, tea, or milk.	Strained soup. Gelatin dessert. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Stewed prunes. Cooked cereal. Soft-boiled eggs. Toast and butter. Coffee, tea, or milk.	Corn chowder. Chicken fricassee. Candied sweet potatoes. Spinach. Floating island pudding. Toast and butter. Coffee, tea, or milk.	Jackson soup. Breaded tomatoes with diced bacon. Glazed parsnips. Steamed rice. Fruit gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Stewed prunes. Cooked cereal. Creamed beef on toast. Toast and butter. Jam. Coffee and milk.	Corn chowder, croutons. Roast loin of pork, brown gravy. Bread dressing. Candied sweet potatoes. Spinach. Cottage pudding, strawberry sauce. Bread and butter. Coffee and milk.	Veal pot pie. Fried hominy. Hearts of lettuce, French dressing. Sweet buns. Bread and butter. Coffee and milk.

l. Tuesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Oranges. Oatmeal. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Oxtail soup, breadsticks. Scalloped brains. Boiled potatoes. Buttered diced carrots. Pineapple Bavarian cream. Toast and butter. Coffee, tea, or milk.	Cream pea soup. Creamed eggs. Boiled potatoes. Artichokes with hollandaise sauce. Sliced fruit. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Oranges. Dry cereal. French toast, syrup. Crisp bacon. Toast and butter. Coffee and milk.	Oxtail soup, breadsticks. Boiled corned beef. Creamed cabbage. Boiled potatoes. Boiled onions. Butterscotch pie. Bread and butter. Coffee and milk.	Fried oysters, tomato sauce. Fried potatoes. Shredded lettuce, French dressing. Sliced fruit. Bread and butter. Coffee and milk.

m. Wednesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.	Clear soup. Vanilla ice cream. Coffee, tea, or milk.

(2) *Light.*

Bananas. Cooked cereal. Poached eggs. Toast and butter. Honey. Coffee, tea, or milk.	Vegetable soup. Creamed lamb on toast. Mashed potatoes. Buttered beets. Tapioca cream pudding. Toast and butter. Coffee, tea, or milk.	Tomato bouillon. Creamed chicken on toast. Steamed rice. Asparagus tips salad, mayonnaise. Vanilla ice cream. Cookies. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Bananas. Cooked cereal. Fried eggs. Hot biscuits, honey. Toast and butter. Coffee and milk.	Vegetable soup, croutons. Pot roast of beef, brown gravy. Mashed potatoes. Dumplings. Scalloped corn. Spice cake with whipped cream. Bread and butter. Coffee and milk.	Chicken croquettes, giblet gravy. Steamed rice. Asparagus salad, mayonnaise. Mincemeat turn-overs. Bread and butter. Coffee and milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

n. Thursday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Fruit juice. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.
(2) *Light.*		
Apple sauce. Flaked wheat. Soft-boiled eggs. Toast and butter. Coffee, tea, or milk.	Rivel soup, breadsticks. Creamed sweetbreads on toast. Baked potatoes. Buttered fresh asparagus tips. Bread pudding, caramel sauce. Toast and butter. Coffee, tea, or milk.	Cream celery soup. Broiled lamb chops. Mashed potatoes. Buttered peas. Chocolate sponge. Toast and butter. Coffee, tea, or milk.
(3) *Regular.*		
Apple sauce. Dry cereal. Hot cakes, maple syrup. Link pork sausage. Toast and butter. Coffee and milk.	Rivel soup, breadsticks. Rolled roast of veal, brown gravy. Baked potatoes. Creamed cauliflower. Bread pudding, caramel sauce. Bread and butter. Coffee and milk.	Grilled hamburgers, brown gravy. Lyonnaise potatoes. Sliced tomatoes. Jelly doughnuts. Bread and butter. Coffee and milk.

o. Friday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.	Bouillon. Gelatin dessert. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Stewed prunes. Cooked cereal. Scrambled eggs. Toast and butter. Coffee and milk.	Fish chowder. Baked filet of sole with lemon. Creamed parsley potatoes. Baked eggplant. Grapenut custard. Toast and butter. Coffee, tea, or milk.	Bouillon. Creamed chicken and mushrooms on toast. Mashed squash. Baked potatoes. Sliced fruit. Toast and butter. Cookies. Coffee, tea, or milk.

(3) *Regular.*

Stewed prunes. Cooked cereal. Scrambled eggs. Toast and butter. Jam. Coffee, tea, or milk.	Fish chowder, croutons. Fried filet of sea bass, tartar sauce. Creamed parsley potatoes. Swiss chard. Peach pie. American cheese. Bread and butter. Coffee and milk.	Grilled frankfurters. German fried potatoes. Combination salad, mayonnaise. Sliced fruit. Bread and butter. Coffee and milk.

p. Saturday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.	Clear soup. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Baked apples. Cream of wheat. Poached eggs. Toast and butter. Coffee, tea, or milk.	Lentil soup. Small broiled steak. Creamed potatoes. Buttered carrots. Tapioca pudding, fruit sauce. Toast and butter. Coffee, tea, or milk.	Cream tomato soup. Artichokes with hollandaise sauce. Mashed potatoes. Creamed celery root. Lettuce. Cottage cheese and pear salad. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Fresh apples. Dry cereal. Corned beef hash. Hot biscuits, honey. Toast and butter. Coffee and milk.	Lentil soup, croutons. Swiss steak, brown gravy. French fried potatoes. Buttered carrots. Tapioca pudding, fruit sauce. Bread and butter. Coffee and milk.	Veal pot pie. Fried hominy. Lettuce. Cottage cheese and pear salad, mayonnaise. Coffee cake. Bread and butter. Coffee and milk.

q. Sunday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Butterscotch ice cream. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.

(2) *Light.*

Pineapple juice. Flaked wheat. Coddled eggs. Fried bacon. Toast and butter. Coffee, tea, or milk.	Noodle soup. Broiled chicken, cream gravy. Baked sweet potatoes. Buttered peas. Fruit cocktail. Butterscotch ice cream. Toast and butter. Coffee, tea, or milk.	Jackson soup. Tuna fish timbale. Creamed hominy. Buttered string beans. Baked apples with whipped cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Pineapple juice. Dry cereal. Fried eggs. Fried bacon. Toast and butter. Coffee and milk.	Noodle soup, crackers. Roast leg of pork, brown gravy. Bread dressing. Baked sweet potatoes. Buttered peas. Fruit cocktail. Special ice cream. Ladyfingers. Bread and butter. Coffee and milk.	Cold assorted meats. Sliced American cheese. Macaroni and shrimp salad. Fresh apples. Bread and butter. Coffee and milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

r. Monday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Fruit juice. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Oranges. Cooked cereal. Poached eggs. Toast and butter. Jelly. Coffee, tea, or milk.	Pepper pot soup. Broiled lamb chops. Creamed potatoes. Baked squash. Bananas. Toast and butter. Coffee, tea, or milk.	Mock turtle soup. Creamed eggs. Mashed potatoes. Buttered beets. Spanish cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Oranges. Cooked cereal. Fried ham. Fried potatoes. Toast and butter. Jelly. Coffee and milk.	Pepper pot soup, croutons. Baked pork and beans. Scalloped tomatoes. Green onions. Sliced pickles. Hot corn bread. Bananas. Bread and butter. Coffee and milk.	Grilled pork chops, cream gravy. Fried potatoes. Hearts of lettuce, French dressing. Gooseberry cobbler. Bread and butter. Coffee and milk.

s. Tuesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Ice cream. Coffee, tea, or milk.	Chicken broth. Custard. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Kadota figs. Oatmeal. Scrambled eggs. Toast and butter. Coffee, tea, or milk.	Vegetable soup, bread-sticks. Scalloped brains. Mashed potatoes. Spinach. St. Patrick's ice cream. Shamrock cookies. Toast and butter. Coffee, tea, or milk.	Chicken gumbo soup. Chicken fricassee. Steamed rice. Broccoli with hollandaise sauce. Sliced fruit. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Kadota figs. Dry cereal. Hot cakes, maple syrup. Link sausage. Toast and butter. Coffee and milk.	Vegetable soup, bread-sticks. Baked Virginia ham, raisin sauce. Mashed potatoes. Spinach. Pumpkin pie. Bread and butter. Coffee and milk.	Chicken fricassee with dumplings. Steamed rice. Lettuce and asparagus, mayonnaise. Sliced fruit. Bread and butter. Coffee and milk.

t. Wednesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Gelatin dessert. Coffee, tea, or milk.	Clear soup. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Baked apples. Cooked cereal. Coddled eggs. Toast and butter. Coffee, tea, or milk.	Barley soup. Fluffed meat balls. Boiled potatoes. Fresh asparagus tips. Prune whip with whipped cream. Toast and butter. Coffee, tea, or milk.	Mushroom soup. Philadelphia cream cheese. Mashed potatoes. Buttered carrots and peas. Floating island pudding. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Baked apples. Cooked cereal. Fried eggs. French diced potatoes. Toast and butter. Jam. Coffee and milk.	Barley soup, croutons. Boiled corned beef. Boiled potatoes. Boiled cabbage. Boiled rutabagas. Prune whip with whipped cream. Bread and butter. Coffee and milk.	Ravioli, mushroom sauce. Short ribs of beef, gravy. Wilted lettuce. Stollen. Bread and butter. Coffee and milk.

u. Thursday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Consomme. Ice cream. Coffee, tea, or milk.	Broth. Custard. Coffee, tea, or milk.

(2) *Light.*

Bananas. Cream of wheat. Poached eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Split pea soup. Cheese fondue. Mashed potatoes. Baked eggplant. Peach sherbet. Toast and butter. Coffee, tea, or milk.	Consomme. Fish cakes. Creamed potatoes. Buttered beets. Sliced fruit. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Bananas. Dry cereal. French toast, syrup. Crisp bacon. Toast and butter. Coffee and milk.	Split pea soup, croutons. Roast beef, brown gravy. Mashed potatoes. Succotash. Apricot pie. Bread and butter. Coffee and milk.	Macaroni and cheese. Spanish meat balls. Combination salad, mayonnaise. Sliced fruit. Bread and butter. Coffee and milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

v. Friday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.	Strained chicken soup. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Stewed rhubarb. Oatmeal. Soft-boiled eggs. Toast and butter. Coffee, tea, or milk.	Clam chowder, breadsticks. Baked halibut, lemon butter sauce. Buttered parsley potatoes. Buttered string beans. Rice pudding. Toast and butter. Coffee, tea, or milk.	Chicken rice soup. Scalloped chicken with mushrooms. Baked potato. Broccoli with hollandaise sauce. Fruit gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Stewed rhubarb. Dry cereal. Soft-boiled eggs. Hot biscuits, honey. Toast and butter. Coffee and milk.	Clam chowder, breadsticks. Fried filet of sole, tartar sauce. Buttered parsley potatoes. String beans. Rice pudding with lemon sauce. Bread and butter. Coffee and milk.	Breaded veal cutlet, cream gravy. French baked potatoes. Sliced tomatoes. Jelly roll. Bread and butter. Coffee and milk.

w. Saturday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Fruit juice. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Apple sauce. Cooked cereal. Poached eggs. Toast and butter. Coffee, tea, or milk.	Bean soup. Broiled lamb chops. Boiled potatoes. Baked squash. Chocolate marshmallow pudding. Toast and butter. Coffee, tea, or milk.	Noodle soup. Scrambled brains and eggs. Mashed potatoes. Buttered carrots. Bananas. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Fresh apple. Cooked cereal. Country sausage. Fried potatoes. Toast and butter. Coffee and milk.	Bean soup, croutons. Baked spare ribs, spanish sauce. Boiled potatoes. Sauerkraut. Chocolate cream pie. Bread and butter. Coffee and milk.	Hot roast beef sandwich, brown gravy. Mashed potatoes. Hearts of lettuce, French dressing. Bananas. Bread and butter. Coffee and milk.

x. Monday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.	Clear soup. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Stewed prunes. Cooked cereal. Scrambled eggs. Toast and butter. Jelly. Coffee, tea, or milk.	English broth. Small broiled steak. Buttered diced potatoes. Italian squash. Fruit gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.	Corn chowder. Artichokes with butter sauce. Steamed rice. Buttered string beans. Sliced fruit. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Stewed prunes. Cooked cereal. Creamed beef on toast. Toast and butter. Jelly. Coffee and milk.	English broth, croutons. Italian spaghetti. Hungarian goulash. Italian squash. Fruit gelatin with whipped cream. Bread and butter. Coffee and milk.	Individual chicken pie. Steamed rice. Shredded lettuce, French dressing. Sliced fruit. Bread and butter. Coffee and milk.

y. Tuesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Orange ice. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Bananas. Flaked wheat. Coddled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Oxtail soup, breadsticks. Roast lamb, gravy. Mint jelly. Mashed potatoes. Glazed carrots. Orange ice. Cookies. Toast and butter. Coffee, tea, or milk.	Creamed celery soup. Scalloped sweet breads. Creamed potatoes. Baked eggplant. Pineapple Bavarian cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Bananas. Dry cereal. French toast, syrup. Crisp bacon. Toast and butter. Coffee and milk.	Oxtail soup, breadsticks. Roast lamb, brown gravy. Mashed potatoes. Mint jelly. Fresh apples. Bread and butter. Coffee and milk.	Baked veal loaf, tomato sauce. Lyonnaise potatoes. Cole slaw. Sweet buns. Bread and butter. Coffee and milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

z. Wednesday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.	Strained soup. Gelatin dessert. Coffee, tea, or milk.
(2) *Light.*		
Apple sauce. Scrambled eggs. Toast and butter. Coffee, tea, or milk.	Barley soup. Broiled beef cakes. Baked potatoes. Buttered peas. Baked peaches and marshmallows. Toast and butter. Coffee, tea, or milk.	Crackers. Julienne soup. Baked chicken and rice. Mashed squash. Lemon sponge, custard sauce. Toast and butter. Coffee, tea, or milk.
(3) *Regular.*		
Apple sauce. Cooked cereal. Ham omelet. Toast and butter. Jam. Coffee and milk.	Barley soup, croutons. Pot roast of beef, brown gravy. Baked potatoes. Dumplings. Swiss chard. Peach turnovers. Bread and butter. Coffee and milk.	Chili con carne. French fried potatoes. Lettuce. Cottage cheese and pear salad, mayonnaise. Apples. Bread and butter. Coffee and milk.

aa. Thursday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.	Tomato bouillon. Custard. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Oranges. Oatmeal. Poached eggs. Toast and butter. Coffee, tea, or milk.	Purée of lima bean soup, breadsticks. Scalloped brains. Boiled potatoes. Baked zuccini. Gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.	Tomato bouillon. Creamed eggs on toast. Steamed rice. Fresh green asparagus. Prune whip. Ladyfingers. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Oranges. Dry cereal. Hot cakes, maple syrup. Link sausage. Toast and butter. Coffee and milk.	Purée of lima bean soup, breadsticks. Boiled corned beef. Boiled cabbage. Boiled onions. Boiled potatoes. Apple pie. American cheese. Bread and butter. Coffee and milk.	Grilled pork chops, cream gravy. Fried potatoes. Hearts of lettuce, French dressing. Bananas. Bread and butter. Coffee and milk.

179. Officers' mess sample menus.—*a. Friday.*—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Orange sherbet. Coffee, tea, or milk.	Broth. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Sliced peaches. Cream of wheat. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Pepper pot soup, breadsticks. Baked scallops, lemon. Mashed potatoes. Fresh asparagus tips. Orange sherbet. Cookies. Toast and butter. Coffee, tea, or milk.	Split pea soup, crackers. Creamed sweetbreads on toast. Candied sweet potatoes. Buttered lima beans. Avocado and grapefruit salad, French dressing. Sliced fresh pineapple. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Kadota figs. Cream of wheat, or choice of dry cereal. Buckwheat cakes, syrup or honey. Sausages. Toast and butter. Coffee, tea, or milk.	Pepper pot soup, breadsticks. Fried scallops, chili sauce. Creamed parsley potatoes. Fresh asparagus tips. Cabbage and walnut salad, cream dressing. Pumpkin pie with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.	Split pea soup, crackers. Virginia baked ham, mincemeat sauce. Candied sweetpotatoes. Buttered lima beans. Grapefruit and avocado salad, French dressing. Sliced fresh pineapple. Ginger cookies. Buttermilk. Bread and butter. Coffee, tea, or milk.

b. Saturday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Apple sauce. Oatmeal. Coddled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Vegetable soup, croutons. Broiled tenderloin steak with mushrooms. Creamed potatoes. Buttered peas and carrots. Apricot Bavarian cream. Toast and butter. Coffee, tea, or milk.	Mock turtle soup, crackers. Scalloped fresh oysters. Buttered diced potatoes. Buttered beets. Gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Apple sauce. Oatmeal or dry cereal. Hot corn bread and jam. Eggs to order. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Vegetable soup, croutons. Broiled T-bone steak with mushrooms. Mashed potatoes. Buttered peas and carrots. Sliced tomatoes, mayonnaise. Apricot Bavarian cream. Buttermilk. Coffee, tea, or milk.	Mock turtle soup, crackers. Roast leg of veal, brown gravy. Franconia potatoes. Buttered beets. Lettuce salad, thousand island dressing. Fruit cocktail. Bread and butter. Buttermilk. Sweet crackers Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Sunday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Chicken soup. Vanilla ice cream. Coffee, tea, or milk.	Broth. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Grapefruit. Flaked wheat. Poached eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Chicken noodle soup, crackers. Broiled chicken, cream gravy. Mashed potatoes. Creamed celery root. Asparagus salad, mayonnaise. Vanilla ice cream. Toast and butter. Coffee, tea, or milk.	Cream tomato soup, croutons. Scalloped brains. Baked potatoes. Spinach with egg. Sliced oranges. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Grapefruit. Flaked wheat or choice of dry cereal. Waffles, syrup or honey. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Chicken noodle soup, crackers. Fried chicken, cream gravy. Mashed potatoes. Corn on the cob. Asparagus and pimiento salad, mayonnaise. Special ice cream. Macaroons. Buttermilk. Bread and butter. Coffee, tea, or milk.	Cream tomato soup, crou. tons. Hot meat loaf, gravy. Fried hominy. Spinach with egg. Celery hearts and sweet pickles. Sliced oranges with shredded coconut. Buttermilk. Bread and butter. Coffee, tea, or milk.

d. Monday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Gelatin dessert. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Orange juice. Stewed prunes. Cream of wheat. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Scotch barley soup, croutons. Roast leg of lamb, gravy. Fluffed potatoes. Eggplant and tomatoes. Tapioca cream pudding. Toast and butter. Coffee, tea, or milk.	Oxtail soup, crackers. Baked potatoes stuffed with chicken. Mashed squash. Fresh string beans. Baked apples with whipped cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Stewed prunes. Cream of wheat or choice of dry cereal. French toast, syrup or honey. Eggs to order. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Scotch barley soup, croutons. Roast leg of lamb, gravy. Fluffed potatoes. Cauliflower au gratin. Tomato aspic salad, mayonnaise. Tapioca cream pudding. Buttermilk. Bread and butter. Coffee, tea, or milk.	Oxtail soup, crackers. Welsh rarebit on toast. Baked potatoes. Fresh string beans. Fresh crab salad. Ripe olives. Baked apples with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

e. Tuesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Stewed rhubarb. Oatmeal. Coddled eggs. Crisp bacon. Coffee, tea, or milk.	Vegetable soup, breadsticks. Creamed sweetbreads on toast. Mashed potatoes. Glazed fresh carrots. Stuffed date salad, boiled dressing. Sliced pears. Bread and butter. Coffee, tea, or milk.	Tomato bouillon, crackers. Creamed tuna fish on toast. Baked potatoes. Artichokes with hollandaise sauce. Avocado and grapefruit salad, French dressing. Floating island pudding. Toast and butter. Coffhe, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Stewed rhubarb. Oatmeal or choice of dry cereal. Sweet buns. Crisp bacon. Eggs to order. Toast and butter. Coffee, tea, or milk.	Vegetable soup, breadsticks. Breaded veal cutlet, chili sauce. Mashed potatoes. Glazed fresh carrots. Stuffed date salad, boiled dressing. Butterscotch pie. Buttermilk. Bread and butter. Coffee, tea, or milk.	Tomato bouillon, crackers. Baked Swiss steak, gravy. Baked potatoes. Artichokes with hollandaise sauce. Avocado and grapefruit salad, French dressing. Floating island pudding. Buttermilk. Bread and butter. Coffee, tea, or milk.

f. Wednesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.	Broth. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Sliced bananas. Cream of wheat. Poached eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	English broth, croutons. Candied sweet potatoes. Buttered Italian squash. Cottage cheese salad. Fruit gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.	Chicken gumbo soup. Creamed chicken on toast. Mashed potatoes. Buttered peas. Nectarines. Sugar cookies. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Sliced bananas. Cream of wheat or choice of dry cereal. Hot biscuits, jam. Broiled ham. Eggs to order. Toast and butter. Coffee, tea, or milk.	English broth, croutons. Stuffed baked pork chops. Apple sauce. Candied sweet potatoes. Buttered Italian squash. Pineapple-cottage cheese salad, mayonnaise. Fruit gelatin with whipped cream. Bread and butter. Buttermilk. Coffee, tea, or milk.	Chicken gumbo soup. Chicken a la king in patty shells. Mashed potatoes. Buttered peas. Jewel salad, mayonnaise. Nectarines. Doughnuts. Bread and butter. Buttermilk. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

g. Thursday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Fruit juice. Coffee, tea, or milk.	Consomme. Vanilla ice cream. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Grapefruit. Flaked wheat. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Scotch barley broth, breadsticks. Scrambled eggs and brains. Mashed potatoes. Spinach and egg. Asparagus salad, mayonnaise. Baked peaches with marshmallows. Toast and butter. Coffee, tea, or milk.	Consomme a la royale. Broiled lamb chops, mint jelly. Creamed potatoes. Buttered beets. Vanilla ice cream. Ladyfingers. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Grapefruit. Flaked wheat or choice dry cereal. Waffles, syrup or honey. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Scotch barley broth, breadsticks. Rib roast of beef, brown gravy. Yorkshire pudding. Mashed potatoes. Spinach and eggs. Lettuce hearts, French dressing. Nectarine pie. Buttermilk. Bread and butter. Coffee, tea, or milk.	Consomme a la royale. Broiled lamb chops, mint jelly. Creamed potatoes. Buttered beets. Waldorf salad, boiled dressing. Vanilla ice cream. Ladyfingers. Buttermilk. Bread and butter. Coffee, tea, or milk.

h. Friday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Beef broth. Gelatin dessert. Coffee, tea, or milk.	Clear soup. Caramel custard. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Orange juice. Oatmeal. Crisp bacon. Coddled eggs. Toast and butter. Coffee, tea, or milk.	Beef broth, croutons. Escalloped fresh oysters. Mashed potatoes. Fresh string beans. Apricot Bavarian cream. Toast and butter. Coffee, tea, or milk.	Vegetable chowder, crackers. Creamed chicken on toast. Buttered steamed rice. Baked Hubbard squash. Banana salad, boiled dressing. Caramel custard. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Baked apple. Oatmeal or choice of dry cereal. Buttermilk hot cakes, syrup or honey. Sausages. Toast and butter. Coffee, tea, or milk.	Clam chowder, croutons. Fried eastern oysters, chili sauce. Scalloped potatoes. Fresh string beans. Sliced tomatoes, mayonnaise. Apricot Bavarian cream. Buttermilk. Bread and butter. Coffee, tea, or milk.	Vegetable chowder, crackers. Stuffed green peppers, Spanish sauce. Buttered steamed rice. Baked Hubbard squash. Candlestick salad, mayonnaise. Cream puffs. Buttermilk. Bread and butter. Coffee, tea, or milk.

i. Saturday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.	Strained soup. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Stewed rhubarb. Cream of wheat. Crisp bacon. Poached eggs. Toast and butter. Coffee, tea, or milk.	Split pea soup, croutons. Broiled lamb chops. Baked potatoes. Buttered beets. Fruit salad, boiled dressing. Prune whip. Sweet crackers. Toast and butter. Coffee, tea, or milk.	Julienne soup. Creamed tuna fish on toast. Mashed sweet potatoes. Buttered fresh asparagus. Baked apple with whipped cream. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Stewed rhubarb. Cream of wheat or choice of dry cereal. Eggs to order. Crisp bacon. Hot biscuits, jam. Toast and butter. Coffee, tea, or milk.	Split pea soup, croutons. Roast leg of veal, brown gravy. Franconia potatoes. Creamed onions. Combination fruit salad, boiled dressing. Prune whip. Sweet crackers. Buttermilk. Bread and butter. Coffee, tea, or milk.	Julienne soup, crackers. Virginia baked ham, mincemeat sauce. Sweet potato croquettes. Buttered fresh asparagus. Green onions and radishes. Baked apple with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

j. Sunday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Orange ice. Coffee, tea, or milk.	Bouillon. Custard. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Grapefruit. Flaked wheat. Crisp bacon. Scrambled eggs. Toast and butter. Coffee, tea, or milk.	Cream tomato soup, crackers. Baked squab, gravy. Mashed potatoes. Buttered peas. Artichoke salad, mayonnaise. Orange ice. Sugar cookies. Toast and butter. Coffee, tea, or milk.	Bouillon. Scalloped sweetbreads on toast. Baked potatoes. Fresh glazed carrots. Star salad, boiled dressing. Honey date pudding, custard sauce. Buttermilk. Bread and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Grapefruit. Flaked wheat or choice of dry cereal. Waffles, syrup or honey. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Cream tomato soup, crackers. Stuffed baked squab, gravy. Mashed potatoes. Buttered peas. Stuffed celery with green olives. Orange ice. Sugar cookies. Mints. Buttermilk. Bread and butter. Coffee, tea, or milk.	Bouillon. Creamed chipped beef on toast. Baked potatoes. Glazed fresh carrots. Star salad, boiled dressing. Honey date pudding, custard sauce. Buttermilk. Bread and butter. Coffee, tea, or milk.

k. Monday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Consomme. Fruit juice. Coffee, tea, or milk.	Strained soup. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Stewed prunes. Cream of wheat. Crisp bacon. Coddled eggs. Toast and butter. Coffee, tea, or milk.	Consomme, croutons. Broiled tenderloin steak with mushrooms. Buttered diced potatoes. Spinach and egg. Pear and cottage cheese salad, mayonnaise. Floating island pudding. Toast and butter. Coffee, tea, or milk.	Jackson soup, crackers. Roast leg of lamb, gravy. Buttered steamed rice. Baked squash. Fruit gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Stewed prunes. Cream of wheat or choice of dry cereal. French toast, syrup or honey. Crisp bacon. Eggs to order. Toast and butter. Coffee, tea, or milk.	Consomme, croutons. Broiled tenderloin steak, with mushrooms. Buttered diced potatoes. Corn on cob. Pear and cottage cheese salad. Floating island pudding. Buttermilk. Bread and butter. Coffee, tea, or milk.	Jackson soup, crackers. Roast leg of lamb, gravy. Buttered steamed rice. Baked squash. Lettuce salad, Russian dressing. Fruit gelatin with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

l. Tuesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Sliced peaches. Oatmeal. Crisp bacon. Poached eggs. Toast and butter. Coffee, tea, or milk.	Oxtail soup, breadsticks. Scalloped brains. Mashed potatoes. Buttered diced carrots. Stuffed date salad, boiled dressing. Sliced fresh pineapple. Sweet crackers. Toast and butter. Coffee, tea, or milk.	Cream pea soup, crackers. Creamed tuna fish on toast. Boiled potatoes. Artichokes with hollandaise sauce. Nectarines. Ladyfingers. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Stewed figs. Oatmeal or choice of dry cereal. Sweet buns. Crisp bacon. Eggs to order. Toast and butter. Coffee, tea, or milk.	Oxtail soup, breadsticks. Baked fresh spareribs, barbecue sauce. Sauerkraut. Mashed potatoes. Buttered diced carrots. Stuffed date salad, boiled dressing. Sliced fresh pineapple. Sweet crackers. Buttermilk. Bread and butter. Coffee, tea, or milk.	Cream pea soup, crackers. Breaded veal cutlet, Chili sauce. Hashed brown potatoes. Artichokes with hollandaise sauce. Sliced tomatoes, mayonnaise. Butterscotch pie. Buttermilk. Bread and butter. Coffee, tea, or milk.

m. Wednesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.	Clear soup. Vanilla ice cream. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Sliced bananas. Cream of wheat. Crisp bacon. Scrambled eggs. Toast and butter. Coffee, tea, or milk.	Vegetable soup, croutons. Creamed chicken on toast. Baked potatoes. Buttered beets. Avocado salad, French dressing. Tapioca cream pudding. Toast and butter. Coffee, tea, or milk.	Tomato bouillon, crackers. Broiled tenderloin steak. Mashed potatoes. Broccoli with hollandaise sauce. Vanilla ice cream. Sweet crackers. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Sliced bananas. Cream of wheat or choice of dry cereal. Hot biscuits, jelly. Broiled ham. Eggs to order. Toast and butter. Coffee, tea, or milk.	Tomato bouillon, crackers. Stuffed baked flank steak, gravy. Mashed potatoes. Broccoli with hollandaise sauce. Celery hearts and sweet pickles. Mincemeat turn-over with cheese. Buttermilk. Bread and butter. Coffee, tea, or milk.	Vegetable soup, croutons. Chicken a la king in patty shells. Baked potatoes. Buttered beets. Avocado salad, French dressing. Spice cake with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

n. Thursday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Fruit juice. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Apple sauce. Flaked wheat. Crisp bacon. Coddled eggs. Toast and butter. Coffee, tea, or milk.	Split pea soup, breadsticks. Creamed sweetbreads on toast. Baked potatoes. Buttered Italian squash. Banana salad, boiled dressing. Brown betty with whipped cream. Toast and butter. Coffee, tea, or milk.	Cream celery soup, crackers. Broiled lamb chops, mint jelly. Mashed potatoes. Buttered peas. Chocolate sponge. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Apple sauce. Flaked wheat or choice dry cereal. Waffles, syrup or honey. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Split pea soup, breadsticks. Rib roast of beef, brown gravy. Franconia potatoes. Buttered Italian squash. Banana nut salad, boiled dressing. Brown betty with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.	Cream celery soup, crackers. Broiled lamp chops, mint jelly. Mashed potatoes. Buttered peas. Hearts of lettuce salad, thousand island dressing. Chocolate sponge pudding. Buttermilk. Bread and butter. Coffee, tea, or milk.

o. Friday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.	Bouillon. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Peaches. Oatmeal. Poached eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Oyster stew, crackers. Baked filet of sole with lemon. Buttered parsley potatoes. Spinach and egg. Grapenut custard. Toast and butter. Coffee, tea, or milk.	Bouillon, crackers. Stuffed potatoes with chicken. Artichokes with butter sauce. Mashed Hubbard squash. Fruit gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Kadota figs. Oatmeal or choice of dry cereal. Hot corn bread, jam. Broiled ham. Eggs to order. Toast and butter. Coffee, tea, or milk.	Oyster stew, crackers. Filet of sole. Buttered spinach and egg. Tomato aspic salad, mayonnaise. Peach pie with cheese. Buttermilk. Bread and butter. Coffee, tea, or milk.	Bouillon, crackers. Baked Swiss steak, gravy. Baked potatoes. Corn on cob. Waldorf salad, boiled dressing. Fruit gelatin with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

p. Saturday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.	Clear soup. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Baked apples. Cream of wheat. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Julienne soup, croutons. Broiled lamb chops. Creamed potatoes. Eggplant and tomatoes. Pineapple-cottage cheese salad, mayonnaise. Tapioca cream pudding. Toast and butter. Coffee, tea, or milk.	Cream tomato soup, crackers. Broiled tenderloin steak. Mashed potatoes. Creamed celery root. Pears au gratin, ginger sauce. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Baked apples. Cream of wheat or choice of dry cereal. Waffles, syrup or honey. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Julienne soup, crackers. Roast leg of veal, brown gravy. Brown potatoes. Spanish eggplant. Pineapple-cottage cheese salad, mayonnaise. Tapioca cream pudding. Buttermilk. Bread and butter. Coffee, tea, or milk.	Cream tomato soup, crackers. Broiled hamburger steak. Fried onions. Hashed brown potatoes. Creamed celery root. Pickled beets and ripe olives. Pears au gratin, ginger sauce. Buttermilk. Bread and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

q. Sunday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Lemon sherbet. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Bananas. Flaked wheat. Coddled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Noodle soup, crackers. Broiled chicken, cream gravy. Currant jelly. Mashed potatoes. Buttered peas. Asparagus salad, mayonnaise. Lemon sherbet. Ladyfingers. Toast and butter. Coffee, tea, or milk.	Jackson soup, crackers. Tuna fish timbale. Creamed hominy. Buttered string beans. Avocado and grapefruit salad, French dressing. Baked apples with whipped cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Bananas. Flaked wheat or choice of dry cereal. Hot biscuits, honey. Crisp bacon. Eggs to order. Toast and butter. Coffee, tea, or milk.	Noodle soup, crackers. Half fried chicken, cream gravy. Currant jelly. Mashed potatoes. Buttered peas. Princess salad, mayonnaise. Special ice cream. Ladyfingers. Buttermilk. Bread and butter. Coffee, tea, or milk.	Jackson soup, crackers. Fried calves' liver and crisp bacon, chili sauce. Buttered string beans. Avocado and grapefruit salad, French dressing. Baked apples with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

r. Monday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Fruit juice. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Orange juice. Stewed prunes. Cream of wheat. Poached eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Pepper pot soup, croutons. Broiled tenderloin steak. Creamed potatoes. Baked squash. Artichoke salad, mayonnaise. Fresh pineapple. Toast and butter. Coffee, tea, or milk.	Mock turtle soup, crackers. Roast lamb, gravy. Mashed potatoes. Buttered beets. Spanish cream. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Stewed prunes. Cream of wheat or choice of dry cereal. Buttermilk hot cakes, syrup or honey. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Pepper pot soup, croutons. Broiled T-bone steak with mushrooms. Creamed potatoes. Baked Hubbard squash. Cabbage and nut salad, cream dressing. Hot cornbread. Fresh pineapple. Bread and butter. Buttermilk. Coffee, tea, or milk.	Mock turtle soup, crackers. Roast lamb, gravy. Mashed potatoes. Harvard beets. Hearts of lettuce, French dressing. Gooseberry tarts with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

s. Tuesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Ice cream. Coffee, tea, or milk.	Chicken broth. Custard. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Orange juice. Grapefruit. Oatmeal. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Vegetable soup, bread-sticks. Scrambled brains and eggs. Mashed potatoes. Glazed fresh carrots. Avocado salad, cream dressing. St. Patricks ice cream. Shamrock cookies. Toast and butter. Coffee, tea, or milk.	Chicken gumbo soup, crackers. Creamed chicken on toast. Steamed rice. Broccoli with hollandaise sauce. Squash custard. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Grapefruit. Oatmeal or choice of dry cereal. Hot cornbread, jam. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Vegetable soup, bread-sticks. Virginia baked ham, mincemeat sauce. Mashed potatoes. Glazed fresh carrots. Jewel salad, mayonnaise. Ripe olives. Bread and butter. Buttermilk. St. Patricks ice cream. Shamrock cookies. Coffee, tea, or milk.	Chicken gumbo soup, crackers. Chicken a la king in patty shell. Steamed rice. Broccoli with hollandaise sauce. Celery hearts and ripe olives. Pumpkin pie with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

t. Wednesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Gelatin dessert. Coffee, tea, or milk.	Clear soup. Fruit juice. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(2) *Light.*

Breakfast	Dinner	Supper
Orange juice. Apple sauce. Flaked wheat. Coddled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Barley soup, croutons. Scalloped fresh oysters. Mashed potatoes. Fresh asparagus tips. Star salad, boiled dressing. Prune whip. Ladyfingers. Toast and butter. Coffee, tea, or milk.	Mushroom soup. Creamed sweetbreads on toast. Mashed potatoes. Spinach and egg. Stuffed date salad, boiled dressing. Floating island pudding. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Apple sauce. Flaked wheat or choice of dry cereal. Waffles, syrup or honey. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Barley soup, croutons. Roast loin of pork, apple sauce. Mashed sweet potatoes. Fresh asparagus tips. Star salad, boiled dressing. Prune whip. Ladyfingers. Buttermilk. Bread and butter. Coffee, tea, or milk.	Mushroom soup. Breaded veal cutlet, chili sauce. Mashed potatoes. Spinach and egg. Stuffed date salad, boiled dressing. Floating island pudding. Buttermilk. Bread and butter. Coffee, tea, or milk.

u. Thursday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Consomme. Ice cream. Coffee, tea, or milk.	Broth. Custard. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Plums. Cream of wheat. Poached eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Split pea soup, croutons. Broiled tenderloin steak. Mashed potatoes. Eggplant and tomatoes. Grapefruit and orange salad, boiled dressing. Sliced apricots. Toast and butter. Coffee, tea, or milk.	Consomme a la royale. Broiled lamb chop, mint jelly. Creamed potatoes. Pineapple-cottage cheese salad, mayonnaise. Vanilla ice cream. Sweet crackers. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Plums. Cream of wheat or dry cereal. French toast, syrup. Crisp bacon. Bread and butter. Coffee, tea, or milk.	Split pea soup, croutons. Rib roast of beef, brown gravy. Mashed potatoes. Spanish eggplant. Grapefruit and apple salad, boiled dressing. Apricot pie. Buttermilk. Bread and butter. Coffee, tea, or milk.	Consomme a la royale. Broiled lamb chop, mint jelly. Creamed potatoes. Harvard beets. Pineapple - cottage cheese salad. Vanilla ice cream. Sweet crackers. Bread and butter. Buttermilk. Coffee, tea, or milk.

v. Friday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.	Strained chicken soup. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Rhubarb. Oatmeal. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Clam chowder, breadsticks. Halibut, lemon butter sauce. Buttered parsley potatoes. Fresh string beans. Banana salad, boiled dressing. Fresh pineapple. Ladyfingers. Toast and butter. Coffee, tea, or milk.	Chicken rice soup, crackers. Scalloped chicken with mushrooms. Baked potatoes. Broccoli with hollandaise sauce. Fruit gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Rhubarb. Oatmeal or dry cereal. Hot biscuits, orange jelly. Crisp bacon. Eggs to order. Coffee, tea, or milk.	Clam chowder, breadsticks. Broiled salmon, tartar sauce. Buttered parsley potatoes. Fresh string beans. Banana nut salad, boiled dressing. Fresh pineapple. Ladyfingers. Buttermilk. Bread and butter. Coffee, tea, or milk.	Chicken rice soup, crackers. Breaded veal cutlet, chili sauce. Lyonnaise potatoes. Broccoli with hollandaise sauce. Sliced tomatoes, mayonnaise. Fruit gelatin with whipped cream. Buttermilk. Bread and butter. Coffee, tea, or milk.

w. Sunday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Peach ice cream. Coffee, tea, or milk.	Strained soup. Custard. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Grapefruit. Cream of wheat. Poached eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Cream tomato soup, crackers. Baked squab, gravy. Currant jelly. Mashed potatoes. Buttered new peas. Peach ice cream. Sugar cookies. Toast and butter. Coffee, tea, or milk.	Scotch barley broth. Tuna fish timbale. Mashed sweet potatoes. Buttered spinach. Apple tapioca pudding. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Grapefruit. Cream of wheat or dry cereal. Hot corn bread, jam. Broiled ham. Eggs to order. Toast and butter. Coffee, tea, or milk.	Creamed tomato soup. Baked stuffed squab, gravy. Currant jelly. Mashed potatoes. Buttered new peas. Celery hearts and green olives. Special ice cream. Sugar cookies. Buttermilk. Bread and butter. Coffee, tea, or milk.	Scotch barley broth, crackers. Baked ham, mincemeat sauce. Buttered spinach. Perfection salad, boiled dressing. Apple tapioca pudding. Bread and butter. Coffee, tea, or milk.

x. Monday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.	Clear soup. Fruit juice. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Prunes. Oatmeal. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	English broth, croutons. Broiled tenderloin steak, with mushrooms. Buttered diced potatoes. Italian squash. Star salad, boiled dressing. Floating island pudding. Toast and butter. Coffee, tea, or milk.	Corn chowder, crackers. Creamed chicken on toast. Steamed rice. Buttered string beans. Fruit cup. Sweet crackers. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Prunes. Oatmeal or choice of dry cereal. Buttermilk hot cakes, syrup or honey. Crisp bacon. Toast and butter. Coffee, tea, or milk.	English broth, croutons. Broiled T-bone steak, with mushrooms. Buttered diced potatoes. Italian squash. Star salad, boiled dressing. Floating island pudding. Buttermilk. Bread and butter. Coffee, tea, or milk.	Corn chowder, crackers. Chicken a la king in patty shell. Steamed rice. Corn on cob. Tomato aspic salad, mayonnaise. Fruit cup. Sweet crackers. Bread and butter. Buttermilk. Coffee, tea, or milk.

y. Tuesday.—(1) *Liquid.*

Fruit juice. Cereal gruel. Coffee, tea, or milk.	Strained soup. Orange ice. Coffee, tea, or milk.	Broth. Gelatin dessert. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Sliced bananas. Flaked wheat. Coddled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Oxtail soup, breadsticks. Roast leg of lamb, gravy. Mint jelly. Mashed potatoes. Artichokes with hollandaise sauce. Fruit salad, boiled dressing. Orange ice. Cookies. Toast and butter. Coffee, tea, or milk.	Cream celery soup, crackers. Broiled sweetbreads. Creamed potatoes. Buttered lima beans. Pineapple Bavarian cream. Toast and butter. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

(3) *Regular.*

Breakfast	Dinner	Supper
Orange juice. Bananas. Flaked wheat or dry cereal. Waffles, syrup. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Oxtail soup, breadsticks. Roast leg of lamb, gravy. Mint jelly. Browned potatoes. Artichokes with hollandaise sauce. Fruit salad, boiled dressing. Orange ice. Cookies. Buttermilk. Bread and butter. Coffee, tea, or milk.	Cream of celery soup, crackers. Broiled hamburger steak, catsup. Hashed brown potatoes. Buttered lima beans. Radishes and green onions. Sweet pickles. Pineapple Bavarian cream. Buttermilk. Bread and butter. Coffee, tea, or milk.
z. Wednesday.—(1) *Liquid.*		
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Custard. Coffee, tea, or milk.	Strained soup. Gelatin dessert. Coffee, tea, or milk.
(2) *Light.*		
Orange juice. Apple sauce. Cream of wheat. Poached eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Barley soup, croutons. Escalloped fresh oysters. Boiled potatoes. Buttered carrots. Custard. Toast and butter. Coffee, tea, or milk.	Julienne soup, crackers. Broiled tenderloin steak. Buttered parsley potatoes. Baked squash. Buttered lima beans. Pineapple Bavarian cream. Toast and butter. Coffee, tea, or milk.
(3) *Regular.*		
Orange juice. Apple sauce. Cream of wheat or choice of dry cereal. Sweet buns. Sausages. Eggs to order. Toast and butter. Coffee, tea, or milk.	Barley soup, croutons. Stuffed baked pork chops. Fresh apple rings. Brown potatoes. Escalloped cauliflower. Carrot and raisin salad, boiled dressing. Peach turn-over with whipped cream. Bread and butter. Coffee, tea, or milk.	Julienne soup, crackers. Baked Swiss steak, gravy. Buttered parsley, potatoes. Head lettuce, French dressing. Lemon snow, custard sauce. Bread and butter. Buttermilk. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

aa. Thursday.—(1) *Liquid.*

Breakfast	Dinner	Supper
Fruit juice. Cereal gruel. Coffee, tea, or milk.	Clear soup. Gelatin dessert. Coffee, tea, or milk.	Tomato bouillon. Custard. Coffee, tea, or milk.

(2) *Light.*

Orange juice. Apricots. Oatmeal. Scrambled eggs. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Pureé of lima bean soup, breadsticks. Scrambled eggs and brains. Mashed potatoes. Italian squash. Avocado and grapefruit salad, French dressing. Gelatin with whipped cream. Toast and butter. Coffee, tea, or milk.	Tomato bouillon, crackers. Cream chicken on toast. Macaroni au gratin. Green asparagus. Prune whip. Ladyfingers. Toast and butter. Coffee, tea, or milk.

(3) *Regular.*

Orange juice. Figs. Oatmeal or choice of dry cereal. French toast, syrup or honey. Eggs to order. Crisp bacon. Toast and butter. Coffee, tea, or milk.	Pureé lima bean soup. Rib roast of beef, brown gravy. Franconia potatoes. Italian squash. Avocado and grapefruit salad, French dressing. Apple pie with cheese. Bread and butter. Buttermilk. Coffee, tea, or milk.	Tomato bouillon. Baked stuffed green peppers. Macaroni au gratin. Green asparagus. Waldorf salad, boiled dressing. Prune whip. Ladyfingers. Bread and butter. Buttermilk. Coffee, tea, or milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SECTION III

THERAPEUTIC AND SPECIAL DIET SAMPLE MENUS

	Paragraph
General	180
Soft	181
Convalescent ulcer	182
High caloric	183
High caloric, high vitamin	184
Dental soft	185
Anticonstipation	186
Pernicious anemia	187
Low fat	188
Cardiovascular-renal (nephritic)	189
Low purin	190
Low salt anticonstipation	191
High caloric, high vitamin, low residue	192
Dental high caloric, high vitamin	193
Bland	194
Tuberculosis	195

180. General.—Below are some special diet menus. Total calories and other essential terms necessary in ordering diets are omitted for they serve no useful purpose. These diets do not begin to cover the field of special diets but are sufficient to show variations.

181. Soft.

Breakfast	Dinner	Supper
Puréed fruit.	Soup.	Soup.
Flaked wheat.	Celery root timbale.	Scalloped brains.
Eggs.	Rice.	Baked potato.
Toast, butter.	Puréed squash.	Puréed carrots.
Milk, cream.	Toast, butter.	Toast, butter.
	Milk.	Milk.
	Pumpkin custard.	Lemon snow, custard sauce.
Oranges.	Soup.	Soup.
Cream of wheat.	Cottage cheese timbale.	Cream chicken.
Eggs.	Baked potato.	Steamed rice.
Toast, butter.	Puréed summer squash.	Buttered asparagus tips.
Milk, cream.	Toast, butter.	Toast, butter.
	Milk.	Milk.
	Floating island pudding.	Peach ice cream.
		Ladyfingers.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Soft—Continued

Breakfast	Dinner	Supper
Puréed fruit. Cooked cereal. Eggs. Toast, butter. Milk, cream.	Soup. Cream sweetbreads. Baked potato. Fresh asparagus tips. Toast, butter. Milk. Bread pudding, caramel sauce.	Cream celery soup. Egg soufflé. Purée of buttered peas. Mashed potato. Toast, butter. Milk, cream. Chocolate sponge.
Baked banana. Flaked wheat. Eggs. Toast, butter. Milk, cream.	Soup. Broiled fish with lemon. Cream potato. Puréed spinach. Toast, butter. Milk. Bread pudding, sauce.	Cream celery soup. Cottage cheese. Steamed rice. Puréed beets. Toast, butter. Milk. Date custard.
Grapefruit juice. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Soup. Lima bean timbale. Mashed potato. Puréed carrots. Toast, butter. Milk. Spanish cream.	Soup. Creamed sweetbreads on toast. Baked potato. Mashed squash. Toast, butter. Milk. Gelatin with whipped cream.
Puréed fruit. Cooked cereal. Eggs. Toast, butter. Milk, cream.	Soup. Puréed peas. Boiled potato. Puréed carrot timbale. Toast, butter. Milk. Apple crisp.	Soup. Scrambled eggs and brains. Mashed potato. Fresh asparagus tips. Toast, butter. Milk. Apricot purée.
Puréed fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Soup. Fresh asparagus tips. Mashed potato. Celery root timbale. Toast, butter. Milk. Prune whip.	Soup. Philadelphia cream cheese on toast. Mashed potato. Puréed spinach. Toast, butter. Milk. Floating island pudding.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Soft—Continued

Breakfast	Dinner	Supper
Puréed fruit.	Soup.	Soup.
Cooked cereal.	Broiled chicken.	Cream tuna fish on toast.
Eggs.	Mashed potato.	Mashed potato.
Toast, butter.	Purée of buttered peas.	Artichokes with sauce.
Milk, cream.	Toast, butter.	Toast, butter.
Jelly.	Milk.	Milk.
	Orange sherbet.	Baked banana.
Puréed fruit.	Soup.	Soup.
Oatmeal.	Fresh asparagus tips.	Creamed eggs.
Eggs.	Creamed potato.	Mashed potato.
Toast, butter.	Puréed squash.	Puréed beets.
Milk, cream.	Toast, butter.	Toast, butter.
	Milk.	Milk.
	Baked banana.	Spanish cream.
Baked banana.	Noodle soup.	Strained soup.
Cooked cereal.	Creamed chicken on toast.	Creamed tuna fish.
Eggs.	Mashed potato.	Duchess potatoes.
Toast, butter.	Fresh asparagus tips.	Puréed squash.
Milk, cream.	Toast, butter.	Toast, butter.
	Milk.	Milk.
	Orange ice.	Spanish cream.
	Ladyfingers.	
Puréed fruit.	Soup.	Strained soup.
Cooked cereal.	Baked halibut with lemon.	Creamed eggs.
Eggs.	Creamed potato.	Whipped potato.
Toast, butter.	Puréed carrots.	Puréed squash.
Milk, cream.	Toast, butter.	Toast, butter.
	Milk.	Milk.
	Rice pudding, fruit sauce.	Gelatin dessert.
Puréed fruit.	Soup.	Soup.
Cooked cereal.	Roast chicken.	Tuna timbale.
Eggs.	Mashed potato.	Mashed sweet potato.
Toast, butter.	Buttered peas.	Puréed lima beans.
Milk, cream.	Toast, butter.	Toast, butter.
	Milk.	Milk.
	Vanilla ice cream.	Oranges.
Puréed prunes.	Soup.	Soup.
Cream of wheat.	Eggplant timbale.	Egg and brains.
Eggs.	Steamed rice.	Baked potato.
Toast, butter.	Puréed parsnips.	Puréed carrots.
Milk, cream.	Toast, butter.	Toast, butter.
	Milk.	Milk.
	Peach tapioca pudding.	Orange delight.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Soft—Continued

Breakfast	Dinner	Supper
Baked apple. Cooked cereal. Eggs. Toast, butter. Milk, cream.	Strained soup. Cheese fondue. Mashed potato. Puréed string beans. Toast, butter. Milk. Baked peaches with marshmallows.	Strained soup. Creamed eggs. Mashed potatoes. Puréed spinach. Toast, butter. Milk. Prune whip.

182. Convalescent ulcer.—See section II, chapter 3, for midmeal nourishments.

Breakfast	Dinner	Supper
Puréed fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Cottage cheese. Spinach timbale. Creamed potato. Toast, butter. Milk, cream. Banana custard.	Creamed soup. Poached eggs on toast. Steamed rice. Puréed squash. Toast, butter. Milk, cream. Pineapple Bavarian cream.
Baked banana. Flaked wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Cottage cheese. Mashed potato. Puréed spinach. Toast, butter. Milk, cream. Vanilla ice cream.	Creamed soup. Creamed eggs. Rice. Puréed beets. Toast, butter. Milk, cream. Date custard.
Puréed fruit. Flaked wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Celery root timbale. Steamed rice. Puréed squash. Toast, butter. Milk, cream. Pumpkin custard.	Creamed soup. Cheese soufflé. Baked potato. Puréed buttered carrots. Toast, butter. Milk, cream. Lemon snow, custard sauce.
Puréed fruit. Oatmeal. Eggs. Toast, butter. Milk, cream.	Creamed soup. Philadelphia creamed cheese on toast. Mashed sweet potato. Puréed buttered peas. Toast, butter. Milk, cream. Vanilla ice cream.	Creamed soup. Artichoke with butter sauce. Eggplant timbale. Mashed potato. Toast, butter. Milk, cream. Baked banana.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Convalescent ulcer—Continued

Breakfast	Dinner	Supper
Puréed fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Cottage cheese timbale. Mashed potato. Puréed carrots. Toast, butter. Milk, cream. Peach Bavarian cream.	Creamed soup. Creamed eggs. Baked potato. Puréed summer squash. Toast, butter. Milk, cream. Whipped gelatin.
Baked apple. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Parsnip timbale. Mashed potato. Purée string beans. Toast, butter. Milk, cream. Baked peaches with marshmallows.	Cream soup. Creamed eggs. Mashed potato. Puréed spinach. Toast, butter. Milk, cream. Prune whip.
Puréed fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Fresh asparagus tips. Mashed potato. Celery root timbale. Toast, butter. Milk, cream. Prune whip.	Creamed soup. Philadelphia cream cheese on toast. Mashed potato. Puréed spinach. Toast, butter. Milk, cream. Floating island pudding.
Puréed fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Artichoke with butter sauce. Mashed potato. Purée of buttered string beans. Toast, butter. Milk, cream. Apricot Bavarian cream.	Creamed soup. Poached eggs on toast. Steamed rice. Puréed buttered carrots. Toast, butter. Milk, cream. Caramel custard.
Puréed fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Asparagus tips. Purée squash soufflé. Steamed rice. Toast, butter. Milk, cream. Custard.	Creamed soup. Egg soufflé. Puréed buttered carrots. Mashed potato. Toast, butter. Milk, cream. Caramel Spanish cream.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Convalescent ulcer—Continued

Breakfast	Dinner	Supper
Puréed fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Carrot timbale. Mashed potato. Puréed zuccini. Toast, butter. Milk, cream. Gelatin with whipped cream.	Creamed soup. Creamed eggs. Fresh asparagus tips. Steamed rice. Toast, butter. Milk, cream. Prune whip.
Puréed prunes. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Eggplant timbale. Steamed rice. Puréed beets. Toast, butter. Milk, cream. Peach tapioca pudding.	Creamed soup. Artichoke with butter sauce. Puréed carrots. Baked potato. Toast, butter. Milk, cream. Orange delight.
Puréed fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Creamed soup. Savory custard. Mashed potato. Puréed peas. Toast, butter. Milk, cream. Vanilla ice cream.	Creamed soup. Puréed lima bean timbale. Mashed sweet potatoes. Puréed buttered squash. Toast, butter. Milk, cream. Baked apple with whipped cream.
Puréed fruit. Cream of wheat. Scrambled eggs. Toast, butter. Milk, cream.	Creamed soup. Celery root timbale. Steamed potatoes. Puréed beets. Toast, butter. Milk, cream. Steamed Scotch pudding with whipped cream.	Creamed soup. Cottage cheese timbale. Steamed rice. Puréed carrots. Puréed nectarines. Toast, butter. Milk, cream.

183. High caloric.

Breakfast	Dinner	Supper
Figs. Cooked cereal (large order). Eggs. Sausage. Toast, 2 slices. Butter, 2 squares. Milk, cream. Jelly.	Fish chowder, crackers. Fried fish, tartar sauce. Creamed potato. Buttered carrots. Candle salad, mayonnaise. Toast, 2 slices. Butter, 2 squares. Milk, ¾, and cream, ¼. Rice pudding, fruit sauce.	Scotch barley broth. Hot roast beef sandwich. Whipped potato. Buttered summer squash. Wilted lettuce. Toast, 2 slices. Butter, 2 squares. Milk, ¾, and cream, ¼. Jam.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

High caloric—Continued

Breakfast	Dinner	Supper
Sliced peaches. Flaked wheat. Eggs. Bacon. Toast, 2 slices. Butter, 2 squares. Milk, cream. Preserves.	Oxtail soup. Broiled lamb chops. Steamed rice. Italian squash. Jewel salad, mayonnaise. Toast, 2 slices. Butter, 2 squares. Milk, cream. Spice cake with whipped cream.	Noodle soup. Scalloped brains. Baked potato. Buttered diced carrots. Lettuce-asparagus salad, mayonnaise. Toast, 2 slices. Butter, 2 squares. Milk, cream. Sliced fruit.
Oranges. Cooked cereal. Eggs. Bacon. Toast, 2 slices. Butter, 2 squares. Milk, cream. Jam or jelly.	Soup. Swiss steak. Creamed potato. Swiss chard. Combination vegetable salad, mayonnaise. Toast, 2 slices. Butter, 2 squares. Milk, ¾, and cream, ¼. Fresh banana. Jam.	Creamed pea soup. Chicken croquettes, giblet gravy. Steamed rice. Baked squash. Sliced tomato. Toast, 2 slices. Butter, 2 squares. Milk, ¾, and cream, ¼. Sliced fruit.
Fresh fruit. Cream of wheat. Eggs. Crisp bacon. Toast, 2 slices. Butter, 2 squares. Milk, cream. Jam.	Soup. Roast beef, gravy. Baked potato with butter. Buttered summer squash. Pear-apricot salad, boiled dressing. Toast, 2 slices. Butter, 2 squares. Milk, ¾, and cream, ¼. Floating island pudding.	Cream tomato soup. Chicken a la king. Steamed rice. Buttered asparagus. Artichoke salad, mayonnaise. Toast, 2 slices. Butter, 2 squares. Milk, ¾, and cream, ¼. Peach ice cream. Ladyfingers.
Stewed rhubarb. Cooked cereal (large order). Eggs. Crisp bacon. Toast, 2 slices. Butter, 2 squares. Milk, cream. Jam.	Soup. Small broiled steak. Boiled potato. Glazed carrots. Perfection salad, mayonnaise. Toast, 2 slices. Butter, 2 squares. Milk, ¾, and cream, ¼. Apple crisp. Honey.	Vegetable soup. Grilled pork chops. Mashed potato. Fresh asparagus tips. Shredded lettuce, dressing. Toast, 2 slices. Butter, 2 squares. Milk, ¾, and cream, ¼. Apricots. Jelly roll.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

High caloric—Continued

Breakfast	Dinner	Supper
Fresh fruit. Flaked wheat. Eggs. Fried ham steak. Toast, 2 slices. Butter, 2 squares. Milk, cream. Jelly.	Clam chowder. Fried fish, tartar sauce. Creamed potato. Spinach. Pineapple-candle salad, mayonnaise. Toast, 2 slices. Butter, 2 squares. Milk, cream. Bread pudding, lemon sauce. Jam.	Creamed celery soup. Individual chicken pie. Steamed rice. Buttered beets. Sliced tomato salad. Toast, 2 slices. Butter, 2 squares. Milk, cream. Date custard.
Grapefruit juice. Cream of wheat. Eggs. Bacon. Toast, 2 slices. Butter, 2 squares. Milk, cream. Jam.	Soup. Swiss steak. Mashed potato. Buttered lima beans. Mixed fruit salad, boiled dressing. Toast, 2 slices. Butter, 2 squares. Milk, cream. Angel food cake.	Julienne soup. Meat croquettes, cream gravy. Baked potatoes. Combination vegetable salad, mayonnaise. Toast, 2 slices. Butter, 2 squares. Milk, cream. Sliced fruit.
Baked apple. Cooked cereal. Eggs. Bacon. Toast, 2 slices. Butter, 2 squares. Milk, cream. Preserves.	Vegetable soup. Roast veal, gravy. Mashed potatoes (large order). String beans. Tomato and lettuce salad, thousand island dressing. Graham toast. Butter, 2 squares. Milk, ¾, and cream, ¼. Pear au gratin.	Mock turtle soup. Baked beef loaf, gravy. Mashed potatoes (large order). Spinach with lemon. Hearts of lettuce, French dressing. Graham toast. Butter, 2 squares. Milk or buttermilk. Prune whip.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

184. High caloric, high vitamin.

Breakfast	Dinner	Supper
Tomato juice. Grapefruit. Cream of wheat. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. 10:00 AM. 2 fresh oranges.	Soup, crackers. Broiled lamb chop. Boiled potatoes. Baked squash. Vegetable salad, mayonnaise. Graham bread. Butter, 2 squares. Milk, ¾, and cream, ¼. Pears (large order). 3:00 PM. Orange juice.	Soup, crackers. Hot roast beef, gravy. Mashed potato (large order). Buttered carrots. Hearts of lettuce, French dressing. Graham bread. Butter, 2 squares. Milk, ¾, and cream, ¼. Banana. 9:00 PM. Eggnog.
Fresh fruit. Flaked wheat. Eggs. Ham steak. Graham toast. Butter, 2 squares. Milk, cream. 10:00 AM. Tomato juice.	Clam chowder. Fried fish, tartar sauce. Creamed potatoes. Spinach (large order). Candle salad, mayonnaise. Graham toast. Butter, 2 squares. Milk or buttermilk. Bread pudding. 3:00 PM. Eggnog.	Cream celery soup. Individual chicken pie. Steamed rice. Buttered beets. Sliced tomato salad. Graham toast. Butter, 2 squares. Milk, ¾, and cream, ¼. Date custard. 9:00 PM. Orange juice.
Banana. Grapefruit. Cooked cereal. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. 10:00 AM. Tomato juice.	Oxtail soup, breadsticks. Small broiled steak. Boiled potatoes. Buttered diced carrots. Combination vegetable salad, mayonnaise. Graham toast. Butter, 2 squares. Milk or buttermilk. Pineapple Bavarian cream. Fresh orange. 3:00 PM. Orange juice.	Creamed pea soup. Fried oysters, tomato sauce. Boiled potato. Artichoke with hollandaise sauce. Shredded lettuce, French dressing. Graham toast. Butter, 2 squares. Milk or buttermilk. Sliced fruit. 9:00 PM. Hot chocolate.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

High caloric, high vitamin—Continued

Breakfast	Dinner	Supper
Sliced oranges. Cooked cereal. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. Jam. 10:00 AM. Tomato juice.	Soup, crackers. Small broiled steak. Boiled potato. Glazed carrots. Perfection salad, mayonnaise. Graham toast. Butter, 2 squares. Milk or buttermilk. Apple pie, cheese. 3:00 PM. Orange juice.	Vegetable soup. Grilled pork chops. Mashed potato. Fresh asparagus tips. Shredded lettuce. Graham toast. Butter, 2 squares. Milk, ¾, and cream, ¼. Jelly roll. Apricots. 9:00 PM. Cocoa, buttered graham toast.
Stewed prunes. Grapefruit. Cooked cereal. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. Jelly. 10:00 AM. Tomato juice.	Cream tomato soup. Roast pork, gravy. Mashed potato. Buttered peas. Philadelphia cream cheese. Fruit cocktail. Graham toast. Butter, 2 squares Milk or buttermilk. Orange sherbet. Cookies. 3:00 PM. Eggnog.	Scotch barley broth. Creamed tuna fish on toast. Mashed potato. Artichoke with hollandaise sauce. Sliced tomato salad, mayonnaise. Graham toast. Butter, 2 squares. Milk, ¾, and cream, ¼. Fresh fruit. 9:00 PM. Tomato juice.
Oranges, 2. Cooked cereal. Eggs. Crisp bacon. Graham toast. Butter, 2 squares. Milk, cream. Jelly. 10:00 AM. Orange juice.	Soup. Swiss steak. Creamed potato. Chard. Combination salad, mayonnaise. Graham toast. Butter, 2 squares. Milk or buttermilk. Sliced banana with cream. 3:00 PM. Tomato juice, buttered crackers.	Soup. Chicken croquettes, giblet gravy. Steamed rice. Baked squash. Sliced tomato. Butter, 2 squares. Graham toast. Milk, ¾, and cream, ¼. Sliced fruit. 9:00 PM. Eggnog.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

High caloric, high vitamin—Continued

Breakfast	Dinner	Supper
Sliced banana. Flaked wheat. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. Jam. 9:00 AM. Eggnog.	English broth, crackers. Roast lamb, gravy. Mint jelly. Mashed potato (large order). Buttered peas. Cabbage salad, boiled dressing. Graham toast. Butter, 2 squares. Milk or buttermilk. Apple sauce. 3:00 PM. Hot chocolate.	Creamed tomato soup, crackers. Broiled liver, bacon. Scalloped brains. Diced potato. Artichoke with hollandaise sauce. Combination salad, mayonnaise. Graham toast. Butter 2 squares. Milk or buttermilk. Ice cream and cake. 9:00 PM. Orange juice.
Figs. Cooked cereal. Eggs. Sausage. Graham toast. Butter, 2 squares. Milk, cream. Jelly. 9:00 AM. Eggnog.	Fish chowder. Fried fish, tartar sauce. Creamed potato. Buttered carrots. Candle salad, mayonnaise. Graham toast. Butter, 2 squares. Milk or buttermilk. Rice pudding, fruit sauce. 3:00 PM. Iced chocolate or hot chocolate.	Scotch barley broth. Hot roast beef sandwich. Whipped potato. Buttered summer squash. Wilted lettuce. Graham toast. Butter, 2 squares. Milk or buttermilk. Sliced fruit. 9:00 PM. Tomato juice, buttered graham toast.
Sliced grapefruit. Oatmeal. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. 9:00 AM. Fruit juice.	Potato chowder. Roast beef, gravy. Baked potato. Swiss chard. Carrot-raisin salad, boiled dressing. Graham toast. Butter, 2 squares. Milk, cream. Tapioca cream pudding. 3:00 PM. Orange juice.	Tomato bouillon. Cream chicken on toast. Steamed rice. Fresh asparagus tips. Pear salad, mayonnaise. Graham toast. Butter, 2 squares. Pineapple delight. Ladyfingers. 9:00 PM. Eggnog.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

High caloric, high vitamin—Continued

Breakfast	Dinner	Supper
Banana. Flaked wheat. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. 9:00 AM. Eggnog.	English broth. Broiled steak. Buttered diced potato. Italian squash. Pear-cottage cheese salad, mayonnaise. Graham toast. Butter, 2 squares. Milk, ¾, and cream, ¼. Fruit gelatin, whipped cream. 3:00 PM. Tomato juice.	Corn chowder. Individual chicken pie. Steamed rice. Buttered string beans. Shredded lettuce salad, French dressing. Graham toast. Butter, 2 squares. Milk, ¾, and cream, ¼. Sliced fruit. 9:00 PM. Orange juice.
Grapefruit juice. Bananas. Cream of wheat. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. 9:00 AM. Eggnog, crackers.	Barley soup. Corn beef and cabbage. Boiled potato. Fresh asparagus tips. Mixed fruit salad, boiled dressing. Graham bread. Butter, 2 squares. Milk, ¾, and cream, ¼. Prune whip with whipped cream. 3:00 PM. Tomato juice, buttered toast.	Mushroom soup. Short ribs of beef, gravy. Mashed potato. Buttered carrots, peas. Wilted lettuce. Graham toast. Butter, 2 squares. Milk. Floating island pudding. 9:00 PM. Orange juice.
Figs. Cooked cereal. Eggs. Bacon. Graham toast. Butter, 2 squares. Milk, cream. 9:00 AM. Cocoa.	Soup, crackers. Scalloped brains. Boiled potato. Baked zuccini. Banana-orange salad, mayonnaise. Graham toast. Butter, 2 squares. Milk, ¾, and cream, ¼. Canned fruit. 3:00 PM. Eggnog.	Tomato bouillon. Grilled pork chop, cream gravy. Steamed rice. Fresh asparagus tips. Hearts of lettuce salad, French dressing. Graham toast. Butter, 2 squares. Milk, ¾, and cream, ¼. Banana. 9:00 PM. Orange juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

185. Dental soft.

Breakfast	Dinner	Supper
Oranges. Puréed fruit. Cooked cereal. Eggs. Toast, butter. Milk, cream. Jelly.	Vegetable soup. Ground meat, gravy. Creamed potato. Puréed spinach timbale. Cottage cheese. Bread, butter. Milk. Fresh banana.	Creamed pea soup. Chicken croquettes, giblet gravy. Steamed rice. Puréed squash. Bread, butter. Milk. Pineapple Bavarian cream.
Sliced grapefruit. Oatmeal. Eggs. Toast, butter. Milk, cream.	Soup. Ground roast lamb, brown gravy. Fluffed potato. Eggplant-corn timbale. Toast, butter. Milk. Cottage cheese. Tapioca cream pudding.	Soup. Ground roast veal, gravy. Mashed squash. Steamed rice. Toast, butter. Milk. Baked apple with whipped cream.
Apple sauce. Cooked cereal. Eggs. Toast, butter. Milk, cream.	Oxtail soup. Ground roast lamb, gravy. Mint jelly. Mashed potato. Celery root timbale. Puréed carrots. Bread, butter. Milk. Orange ice.	Soup. Ground baked veal loaf, tomato sauce. Creamed potato. Fresh asparagus tips. Lima bean timbale. Bread, butter. Milk. Pineapple Bavarian cream.
Grapefruit juice. Cream of wheat. Eggs. Toast, butter. Milk, cream. Jam.	Soup. Ground meat, gravy. Mashed potato. Puréed carrots. Lima bean timbale. Bread, butter. Milk. Spanish cream.	Soup. Ravioli, mushroom sauce. Baked potato. Mashed squash. Bread, butter. Gelatin with whipped cream.
Baked banana. Flaked wheat. Eggs. Toast, butter. Milk, cream. Jelly.	Clam chowder. Broiled salmon, lemon sauce. Creamed potato. Puréed spinach. Bread, butter. Milk. Bread pudding, sauce.	Cream of celery soup. Ground chicken, gravy. Steamed rice. Puréed beets. Cottage cheese. Bread, butter. Milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Dental soft—Continued

Breakfast	Dinner	Supper
Oranges. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Rivel soup. Ground roast beef, gravy. Baked potato. Puréed squash. Cottage cheese. Bread, butter. Milk. Floating island pudding.	Creamed tomato soup. Ground creamed chicken. Steamed rice. Asparagus tips. Artichoke salad, mayonnaise. Bread, butter. Milk.
Puréed fruit. Fresh oranges. Cooked cereal. Eggs. Toast, butter. Milk, cream. Jelly.	Noodle soup. Ground roast pork, gravy. Mashed potato. Puréed buttered peas. Bread, butter. Milk. Special ice cream. Ladyfingers.	Jackson soup. Tuna fish timbale. Steamed rice. Puréed string beans. Bread, butter. Milk. Baked apple with whipped cream.
Banana. Cooked cereal. Eggs. Toast, butter. Milk, cream.	Soup. Ground creamed chicken. Mashed potato. Puréed peas. Bread, butter. Milk. Special vanilla cream.	Soup. Salmon timbale. Mashed sweet potato. Puréed lima beans. Puréed squash. Toast, butter. Milk. Baked apple with whipped cream.
Banana. Boiled eggs. Flaked wheat. Toast, butter. Milk, cream.	English broth. Ground roast lamb. Buttered diced potatoes. Puréed Italian squash. Puréed beets. Bread, butter. Milk. Floating island pudding.	Corn chowder. Ground roast beef, gravy. Steamed rice. Vegetable timbale. Artichoke salad, mayonnaise. Bread, butter. Milk. Gelatin with cream.
Puréed prunes. Cream of wheat Eggs. Toast, butter. Milk, cream.	Soup. Ground beef. Steamed rice. Scalloped tomato. Puréed parsnips. Bread, butter. Milk. Tapioca pudding, strawberry sauce.	Soup. Eggs and brains. Scalloped potato. Puréed carrots. Artichoke with hollandaise sauce. Bread, butter. Milk. Orange delight.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

186. Anticonstipation.

Breakfast	Dinner	Supper
Stewed rhubarb. Bran cereal. Egg. Ham. Graham toast, butter. Cream. 10:00 AM. Orange juice.	Soup with agar. Fried smelts, tartar sauce. Buttered string beans. Buttered rutabagas. Pear-orange-date salad, boiled dressing. Bran muffins, butter. Buttermilk. Sliced apricots. 3:00 PM. Fruit juice.	Soup with agar. Breaded veal cutlet, cream gravy. Broccoli with hollandaise sauce. Buttered carrots. Graham bread, butter. Candlestick salad, boiled dressing. Sliced fruit. 9:00 PM. Tomato juice.
Stewed fruit. Bran cereal. Egg. Crisp bacon. Butter, toast. Cream. Milk, ½ glass. 10:00 AM. Orange juice.	Soup with agar. Roast pork, gravy. Buttered peas. Cabbage. Fruit cocktail. Graham toast, butter. Buttermilk. Orange sherbet. Cookies. 3:00 PM. Tomato juice.	Soup with agar. Roast beef, gravy. Artichoke with hollandaise sauce. Baked eggplant. Sliced tomato salad, mayonnaise. Graham toast, butter. Buttermilk. Fresh fruit. 9:00 PM. Fruit juice.
Banana. Bran cereal. Egg. Sausage. Graham toast. Butter. Cream. Milk, ½ glass. 10:00 AM. Fruit juice.	Soup with agar. Roast chicken, gravy. Buttered peas. Fruit cocktail. Spinach. Graham toast, butter. Buttermilk. Special ice cream. Raw apple, peeled. 3:00 PM. Tomato juice.	Creamed tomato soup with agar. Roast beef. Buttered lima beans. Squash. Celery hearts. Graham toast, butter. Buttermilk. Sliced oranges. Baked apple. 9:00 PM. Orange juice.
Steamed rhubarb. Bran cereal. Egg. Crisp bacon. Graham toast, butter. Cream. Milk, ½ glass. 10:00 AM. Tomato juice.	Soup with agar. Corned beef, cabbage. Rutabagas. Perfection salad, mayonnaise. Graham toast, butter. Buttermilk. Apple crisp. 3:00 PM. Orange juice.	Vegetable soup with agar. Grilled pork chops. Fresh asparagus. Buttered celery root. Shredded lettuce. Graham toast, butter. Buttermilk. Apricots (large order). 9:00 PM. Fruit juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Anticonstipation—Continued

Breakfast	Dinner	Supper
Oranges. Bran cereal. Egg. Graham toast, butter. Cream. Milk, ½ glass. 10:00 AM. Orange juice.	Soup with agar. Swiss steak. Chard. Buttered onions. Combination vegetable salad, mayonnaise. Graham toast, butter. Buttermilk or milk. Banana. 3:00 PM. Tomato juice.	Soup with agar. Chicken croquette, giblet gravy. Baked squash. Turnips. Sliced tomato. Graham toast, butter. Buttermilk. Sliced fruit. 9:00 PM. Fruit juice.
Sliced banana. Bran cereal. Egg. Crisp bacon. Graham toast, butter. Milk, ½ glass. Cream. 10:00 AM. Tomato juice.	English broth. Roast lamb, gravy. Mint jelly. Buttered peas. Baked eggplant. Cabbage salad, cream dressing. Hot bran muffins, butter. Buttermilk. Apple sauce (large order). 3:00 PM. Orange juice.	Cream tomato soup with agar. Beef stew. Artichoke with hollandaise sauce. Buttered rutabagas. Combination salad, mayonnaise. Graham toast, butter. Buttermilk. Ice cream. Fresh fruit. 9:00 PM. Fruit juice.
Orange juice. Fresh fruit. Bran cereal. Egg. Bacon. Graham toast, butter. Cream. Milk, ½ glass. 10:00 AM. Orange juice.	Soup with agar. Short ribs of beef. Italian squash. Beets. Jewel salad, mayonnaise. Graham toast, butter. Buttermilk or milk. Canned pears. 3:00 PM. Tomato juice.	Soup with agar. Frankfurters. Buttered carrots. Celery root. Lettuce-asparagus salad, mayonnaise. Graham toast, butter. Buttermilk. Sliced fruit. 9:00 PM. Fruit juice.
Tomato juice. Bran cereal. Egg. Crisp bacon. Graham toast, butter. Cream. Milk, ½ glass. 10:00 AM. Orange juice.	Soup with agar. Baked spare ribs, Spanish sauce. Sauerkraut. Baked squash. Vegetable salad, mayonnaise. Graham bread, butter. Buttermilk. Pears (large order). 3:00 PM. Fruit juice.	Soup with agar. Roast beef, gravy. Buttered carrots. Cauliflower. Hearts of lettuce, French dressing. Graham bread, butter. Buttermilk. Ripe banana. 9:00 PM. Tomato juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Anticonstipation—Continued

Breakfast	Dinner	Supper
Figs (large order). Bran cereal. Egg. Sausage. Graham toast, butter. Milk, ½ glass. 10:00 AM. Orange juice.	Soup with agar. Fresh fish, tartar sauce. Buttered carrots. Cauliflower. Candlestick salad, mayonnaise. Graham toast, butter. Buttermilk. Peaches. 3:00 PM. Tomato juice.	Soup with agar. Roast beef, gravy. Buttered summer squash. Onions. Wilted lettuce. Graham toast, butter. Buttermilk. Sliced fruit. 9:00 PM. Fruit juice.
Baked apple. Bran cereal. Egg. Bacon. Graham toast, butter. Cream. Milk, ½ glass. 10:00 AM. Orange juice.	Soup with agar. Roast veal, gravy. String beans. Rutabagas. Cauliflower - tomato - egg salad, thousand island dressing. Graham toast, butter. Buttermilk. Fresh fruit. 3:00 PM. Fruit juice.	Mock turtle soup. Baked beef loaf, gravy. Spinach. Baked fresh tomato. Hearts of lettuce, French dressing. Graham toast, butter. Buttermilk. Prune whip. 9:00 PM. Tomato juice.
Canned apricots. Grapefruit. Bran cereal. Egg. Bacon. Graham toast, butter. Cream. Milk, ½ glass. 10:00 AM. Fruit juice.	Soup with agar. Roast lamb, gravy. Buttered cauliflower. Scalloped tomato. Cole slaw. Graham toast, butter. Buttermilk. Canned fruit. Raw apple. 3:00 PM. Orange juice.	Soup with agar. Breaded pork chop, cream gravy. Mashed potato. Buttered string beans. Sliced tomato. Bran muffin, butter. Buttermilk. Baked apple with whipped cream. 9:00 PM. Tomato juice.
Pineapple juice. Canned apricots. Bran cereal. Egg. Crisp bacon. Graham toast, butter. Milk, cream. 10:00 AM. Fruit juice.	Soup with agar. Roast veal, gravy. Creamed cauliflower. Buttered beets. Mixed fruit salad with whipped cream. Graham toast, butter. Buttermilk. Sliced orange, stewed raisins. 3:00 PM. Tomato juice.	Soup with agar. Frankfurters. Glazed carrots. Sauerkraut. Wilted lettuce. Graham toast, butter. Buttermilk. Sliced fruit. 9:00 PM. Orange juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Anticonstipation—Continued

Breakfast	Dinner	Supper
Baked apple. Bran cereal. Egg. Crisp bacon. Graham toast, butter. Cream. Milk, ½ glass. 10:00 AM. Orange juice.	Bean soup with agar. Roast lamb, gravy. Mint jelly. Buttered peas. Buttered asparagus tips. Sliced tomato salad, mayonnaise. Hot bran muffin, butter. Buttermilk. Baked peaches with marshmallows. 3:00 PM. Tomato juice.	Consomme with agar. Hungarian goulash. Buttered beets. Corn. Combination vegetable salad, mayonnaise. Graham toast, butter. Buttermilk. Ice cream with crushed fruit. 9:00 PM. Fruit juice.

187. Pernicious anemia.

Breakfast	Dinner	Supper
Apple sauce. Cooked cereal. Eggs, 2. Crisp bacon. Graham toast, butter. Milk, cream. 10:00 AM. Orange juice.	Soup. Roast lamb, gravy. Liver baked in fresh tomato. Mashed potato. Glazed carrots. Graham toast, butter. Celery root-pineapple salad, boiled dressing. Orange ice. 3:00 PM. Fruit juice.	Soup. Scalloped sweetbreads. Baked veal loaf, sauce. Creamed potato. Baked eggplant. Pear-orange salad. Graham toast, butter. Milk. Apricots. 9:00 PM. Tomato juice.
Grapefruit juice. Cream of wheat. Eggs, 2. Bacon. Graham toast, butter. Milk, cream. 10:00 AM. Tomato juice.	Soup. Swiss steak. Mashed potato. Succotash. Liver baked in tomato. Mixed fruit salad, boiled dressing. Graham toast, butter. Milk. Apple sauce. 3:00 PM. Orange juice.	Julienne potato soup. Broiled liver and bacon. Creamed sweetbreads on toast. Baked potato. Mashed squash. Graham toast, butter. Milk. Star salad with strawberries. Sliced fruit. 9:00 PM. Fruit juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Pernicious anemia—Continued

Breakfast	Dinner	Supper
Stewed prunes. Cooked cereal. Egg. Broiled liver. Graham toast, butter. Milk, cream. 10:00 AM. Tomato juice.	Fruit cocktail. Cream of tomato soup. Broiled chicken. Mashed potato. Liver patties. Toast, butter. Orange sherbet. Milk. 3:00 PM. Fruit juice.	Scotch barley broth. Broiled steak. Mashed potato. Artichoke with hollandaise sauce. Sliced tomato with diced broiled liver salad. Graham toast, butter. Milk. Fruit cup. 9:00 PM. Orange juice.
Fresh fruit. Cream of wheat. Eggs scrambled with liver. Graham toast, butter. Milk, cream. 10:00 AM. Orange juice.	Rivel soup. Roast beef, gravy. Baked potato stuffed with liver. Summer squash. Pear-apricot salad, boiled dressing. Graham toast, butter. Milk. Sliced oranges. 2:00 PM. Tomato juice.	Cream of tomato soup. Chicken a la king on graham toast. Scalloped rice and kidney. Buttered asparagus tips. Fruit salad with dates, boiled dressing. Graham toast, butter. Milk. Peach ice cream. Ladyfingers. 8:00 PM. Fruit juice.
Sliced oranges. Cooked cereal. Eggs. Crisp bacon. Graham toast, butter. Milk, cream. 10:00 AM. Orange juice.	Soup. Small broiled steak. Boiled potato. Glazed carrots. Spanish liver. Perfection salad, small amount mayonnaise. Graham toast, butter. Milk. Baked apple. 2:00 PM. Tomato juice.	Vegetable soup. Scrambled eggs and brains. Broiled liver. Mashed potatoes. Fresh asparagus tips. Shredded lettuce. Graham toast, butter. Milk. Apricots. 8:00 PM. Orange juice.
Apricots. Cream of wheat. Eggs. Liver patties. Graham toast, butter. Milk, cream. 10:00 AM. Tomato juice.	Fish chowder. Baked halibut. Liver baked in pepper. Creamed potato. Carrots. Candlestick salad, small amount mayonnaise. Graham toast, butter. Milk. Peaches. 2:00 PM. Fruit juice.	Scotch barley broth. Hot roast beef, gravy. Liver baked in potato. Buttered summer squash. Wilted lettuce. Graham toast, butter. Milk. Sliced fruit. 9:00 PM. Orange juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Pernicious anemia—Continued

Breakfast	Dinner	Supper
Rhubarb. Oatmeal. Egg. Broiled liver. Bacon. Graham toast, butter. Milk, cream. 10:00 AM. Fruit juice.	Split pea soup. Roast beef, gravy (small amount). Mashed potato. Succotash. Liver scalloped with tomato. Artichoke salad, mayonnaise. Graham bread, butter. Milk. Peach sherbet. 2:00 PM. Tomato juice.	Soup. Club sandwich. Broiled liver with bacon. Sliced tomato and lettuce, mayonnaise (small amount). Macaroni and cheese (small order). Sliced fruit (large order). 9:00 PM. Orange juice.
Oranges. Cooked cereal. Egg. Crisp bacon. Graham toast, butter. Milk, cream. 10:00 AM. Tomato juice.	Vegetable soup. Small steak. Creamed potato. Swiss chard. Liver stuffed in pepper. Combination vegetable salad, mayonnaise. Graham toast, butter. Milk. Banana. 2:00 PM. Fruit juice.	Creamed pea soup. Chicken croquettes, giblet gravy. Steamed rice and liver pie. Squash. Sliced tomato. Graham toast, butter. Milk. Sliced fruit. 9:00 PM. Orange juice.
Oranges. Cooked cereal. Eggs. Ham. Graham toast, butter. Milk, cream. 10:00 AM. Tomato juice.	Noodle soup. Broiled chicken with cream gravy and liver. Baked sweet potato. Buttered peas. Fruit cocktail. Graham bread, butter. Milk. Special ice cream. Ladyfingers. 2:00 PM. Fruit juice.	Soup. Fried calves' liver and crisp bacon. Creamed hominy. Buttered string beans. Sliced tomato and asparagus salad, mayonnaise. Graham toast, butter. Milk. Baked apple with cream. 8:00 PM. Orange juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Pernicious anemia—Continued

Breakfast	Dinner	Supper
Tomato juice. Fresh orange. Cereal. Egg. Liver and bacon. Graham toast, butter. Milk, cream. 10:00 AM. Fruit juice.	Soup. Broiled lamb chops. Boiled potatoes. Baked squash. Kidney pie. Combination salad, mayonnaise. Graham bread, butter. Milk. Canned pears. 2:00 PM. Fruit juice.	Noodle soup. Scrambled eggs with brains. Broiled steak. Mashed potato. Buttered carrots. Hearts of lettuce, French dressing. Graham bread, butter. Milk. Banana. 9:00 PM. Tomato juice.
Sliced grapefruit. Oatmeal. Eggs. Crisp bacon. Graham toast, butter. Milk, cream. 10:00 AM. Orange juice.	Potato chowder. Roast beef, gravy. Baked potato stuffed with liver. Swiss chard. Carrot-raisin salad, boiled dressing. Graham toast, butter. Milk. Canned pears. 3:00 PM. Tomato juice.	Tomato bouillon. Creamed chicken. Steamed rice. Fresh asparagus tips. Spanish liver and kidney. Cottage cheese-fruit salad, mayonnaise. Graham toast, butter. Milk. Pineapple delight. 9:00 PM. Fruit juice.
Stewed prunes. Cream of wheat. Eggs, 2. Crisp bacon. Graham toast, butter. Milk, cream. 10:00 AM. Orange juice.	Soup. Lamb patties. Bacon. Scalloped tomato. Steamed rice and liver pie. String bean-asparagus-pimento salad, small amount mayonnaise. Graham toast, butter. Milk. Peaches with steamed raisins. 3:00 PM. Fruit juice.	Bouillon. Scrambled eggs with brains. Broiled liver. Scalloped potato. Artichoke with hollandaise sauce. Graham toast, butter. Milk. Fruit cup. 9:00 PM. Tomato juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

188. Low fat.

Breakfast	Dinner	Supper
Apple sauce. Cooked cereal. Egg, 1. Toast, jam. Skim milk.	Bouillon. Roast lamb. Mint jelly. Mashed potato. Peas. Celery root-pineapple salad, mineral oil French dressing. Toast, jam. Skim milk. Orange ice.	Bouillon. Hamburger. Baked eggplant. Boiled potato. Pear-orange salad. Toast, jam. Gelatin dessert. Skim milk.
Apple sauce. Cream of wheat. Egg, 1. Toast, jam. Skim milk.	Bouillon. Baked sea bass with lemon. Spinach. Boiled potato. Fruit salad. Toast, jam. Skim milk. Sherbet.	Bouillon. Lamb steak. String beans. Baked potato. Date-orange-cottage cheese salad. Toast, jam. Skim milk. Pears.
Oranges. Cooked cereal. Egg, 1. Toast, jam. Skim milk.	Bouillon. Broiled chicken. Mashed potato. Peas. Star salad. Toast, jam. Skim milk. Sherbet. Ladyfingers.	Bouillon. Steak. String beans. Steamed rice. Asparagus tip salad, mineral oil dressing. Toast, jam. Skim milk. Baked apple.
Banana. Cream of wheat. Egg, 1. Toast, jam. Skim milk.	Bouillon. Fluffed meat ball. Fresh asparagus tips. Boiled potato. Cottage cheese salad. Toast, jam. Skim milk. Fruit cup.	Bouillon. Veal steak. Peas. Mashed potato. Celery root salad, mineral oil dressing. Toast, jam. Skim milk. Apricots.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Low fat—Continued

Breakfast	Dinner	Supper
Banana. Cooked cereal. Egg, 1. Toast, jam. Skim milk.	Bouillon. White meat of chicken. Mashed potato. Peas. Fruit cocktail. Toast, jam. Skim milk. Sherbet.	Bouillon. Roast beef. Sweet potato. Baked squash. Celery hearts. Baked apple. Toast, jam. Skim milk. Oranges.
Apricots. Cream of wheat. Egg, 1. Toast, jam. Skim milk.	Bouillon. Halibut with lemon. Potato. Peas. Candlestick salad, mineral oil dressing. Toast, jam. Skim milk. Peaches.	Bouillon. Roast beef. Summer squash. Baked potato. Hearts of lettuce, mineral oil dressing. Toast, jam. Skim milk. Sliced fruit.
Sliced oranges. Cream of wheat. Eggs. Toast, jam. Skim milk.	Bouillon. Roast lamb. Mashed potato. Lima beans. Fruit salad. Toast, jam. Skim milk. Angel food cake.	Bouillon. Meat balls. Baked potato. String beans. Asparagus tip salad, mineral oil dressing. Toast, jam. Skim milk. Sliced fruit.
Sliced oranges. Cooked cereal. Egg, 1. Toast, jam. Skim milk.	Bouillon. Lamb patties. Rice. Peas. Hearts of lettuce, mineral oil dressing. Toast, jam. Skim milk. Baked apple.	Bouillon. Steak. Celery root. Mashed potato. Cottage cheese salad. Toast, jam. Skim milk. Apricots.
Steamed prunes. Cooked cereal. Egg, 1. Toast, jam. Skim milk.	Bouillon. Roast veal. Baked potato. Fresh asparagus tips. Celery hearts. Toast, jam. Skim milk. Fruit cup.	Bouillon. Lamb steak. Turnips. Mashed potato. Date-orange salad. Toast, jam. Skim milk. Apple sauce.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Low fat—Continued

Breakfast	Dinner	Supper
Oranges. Cooked cereal. Egg, 1. Toast, jelly. Skim milk.	Bouillon. Small steak. Spinach. Boiled potato. Cottage cheese salad. Toast, jam. Skim milk. Banana.	Bouillon. Chicken. Rice. Squash. Fruit salad. Toast, jam. Skim milk. Sliced fruit.
Sliced banana. Flaked wheat. Egg, 1. Toast, jam. Skim milk.	Bouillon. Steak. Asparagus tips. Mashed potato. Fresh oyster cocktail with lemon. Toast, jam. Skim milk. Orange ice. Ladyfingers.	Bouillon. Roast beef. Baked squash. Boiled potato. Hearts of lettuce, mineral oil dressing. Toast, jam. Skim milk. Fruit cup.
Baked apple. Cooked cereal. Egg, 1. Toast, jam. Skim milk.	Bouillon. Roast veal. String beans. Mashed potato. Lettuce salad, mineral oil dressing. Toast, jam. Skim milk. Sliced peaches.	Bouillon. Steak. Spinach. Mashed potato. Celery hearts. Toast, jam. Skim milk. Fruit cup.
Sliced oranges. Oatmeal. Egg, 1. Toast, jam. Skim milk.	Bouillon. Roast beef. Summer squash. Baked potato. Cottage cheese-pear salad, mineral oil dressing. Toast, jam. Skim milk. Gelatin dessert.	Bouillon. Chicken. Rice. Asparagus tips. Star salad. Toast, jam. Skim milk. Pineapple delight. Ladyfingers.
Sliced peaches. Flaked wheat. Egg, 1. Toast, jam. Skim milk.	Bouillon. Lamb steak. Italian squash. Steamed rice. Celery root salad, mineral oil dressing. Toast, jam. Skim milk. Canned pears.	Bouillon. Frankfurters. Baked potato. Beets. Fruit salad. Toast, jam. Skim milk. Lemon snow.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

189. Cardiovascular-renal (nephritic).—Approximately 40 grams of protein.

Breakfast	Dinner	Supper
Grapefruit, ½. Salt-free flaked wheat. Egg, 1. Toast, salt-free butter. Milk, ½ glass. Cream.	Boiled fish, 35 grams, with lemon. "Sac" spinach, 50 grams. Boiled potato. Star salad. Toast, ½ slice, salt-free butter. Sherbet.	Creamed soup (small serving). Rice. Buttered cauliflower. Fresh beets. Sliced tomato. Toast, salt-free butter. Milk, ½ glass. Canned fruit.
Sliced orange. Salt-free flaked wheat. Egg, 1. Toast, salt-free butter. Cream. Jelly.	Chicken, 40 grams, with 25 grams table cream. Fresh asparagus tips. Mashed potato. Fruit salad with whipped cream. Toast, salt-free butter. Orange ice.	Salt-free buttered fresh peas. Baked squash. Boiled potato. Hearts of lettuce salad, salt-free dressing. Toast, salt-free butter. Fruit cup.
Sliced oranges. Salt-free cream of wheat. Egg, 1. Toast, salt-free butter. Cream.	Creamed soup (small serving). Salt-free buttered cauliflower. Fresh carrots. Mashed potato. Mixed fruit salad with whipped cream. Toast, salt-free butter. Apple sauce.	Baked potato, salt-free butter. Mashed squash. Salt-free string beans. Hearts of lettuce salad. Toast, salt-free butter. Milk, 1 glass. Sliced fruit.
Sliced oranges. Salt-free cream of wheat. Egg, 1. Toast, salt-free butter. Cream.	Small order cream soup, crackers, salt-free. Salt-free buttered summer squash. Onions. Baked potato. Pear-apricot salad with whipped cream. Toast, salt-free butter. Sliced oranges.	Diced chicken, 40 grams, in 25 grams table cream. Rice. Fresh carrots. Artichoke salad, salt-free mayonnaise. Toast, salt-free butter. Peach ice cream.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Cardiovascular-renal—Continued

Breakfast	Dinner	Supper
Stewed prunes. Salt-free cream of wheat. Egg, 1. Toast, salt-free butter. Milk, ½ glass. Cream.	Broiled chicken, 40 grams. Mashed potato. Salt-free buttered cabbage. Fruit cocktail. Toast, salt-free butter. Orange sherbet. Cookies.	Creamed soup (small order). Salt-free buttered onions. Mashed potato. Baked eggplant. Artichoke salad, salt-free mayonnaise. Toast, salt-free butter. Fresh fruit.
Fresh fruit. Salt-free flaked wheat. Egg, 1. Toast, salt-free butter. Cream.	Baked potato. Baked eggplant. Fresh peas. Mixed fruit salad. Toast, salt-free butter. Milk, ½ glass. Apple sauce.	Cream soup. Diced potato. Asparagus. Buttered rutabagas. Artichoke salad, salt-free mayonnaise. Toast, salt-free butter. Sherbet.
Apricots. Salt-free cream of wheat. Egg, 1. Toast, salt-free butter. Cream.	Baked halibut, 40 grams, with lemon. Mashed potato. Salt-free buttered cauliflower. Candlestick salad, salt-free mayonnaise. Toast, salt-free butter. Canned peaches.	Cream soup. Salt-free buttered summer squash. Baked potato. Salt-free buttered onions. Hearts of lettuce, salt-free dressing. Toast, salt-free butter. Sliced fruit. Milk, ½ glass.
Sliced grapefruit. Salt-free cream of wheat. Egg, 1. Toast, salt-free butter. Cream.	Cream soup (small serving). Summer squash. Baked potato. Swiss chard. Pear-orange salad. Toast, salt-free butter. Tapioca cream pudding. Milk, ½ glass.	Diced chicken, 40 grams, in 25 grams table cream. Rice. Fresh asparagus tips. Hearts of lettuce, salt-free mayonnaise. Toast, salt-free butter. Canned fruit.
Baked apple. Salt-free cream of wheat. Poached egg, 1. Toast, salt-free butter. Milk. Cream.	Cream soup. Lamb chop, 40 grams. Mashed potato. Rutabagas. Lettuce, salt-free French dressing. Baked peach and marshmallow. Toast, salt-free butter. Orange juice.	Cream soup. Salt-free spinach. Baked potato. Cauliflower. Star salad. Strawberries. Toast, salt-free butter. Milk, ½ glass.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Cardiovascular-renal—Continued

Breakfast	Dinner	Supper
Baked apple. Salt-free cream of wheat. Egg, 1. Toast, salt-free butter. Milk, ½ glass. Cream.	Cream soup. Banana squash. Boiled potato. Rutabagas. Peach-date salad. Toast, salt-free butter. Milk, ½ glass. Pear au gratin.	Cream soup. Baked fresh tomato. Salt-free buttered cauliflower. Boiled potato. Stuffed prune salad. Toast, salt-free butter. Milk, ½ glass. Fruit cup.

190. Low purin.—*No tea, coffee, salt.*

Breakfast	Dinner	Supper
Sliced oranges. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Boiled potato. Glazed carrots. Cabbage. Hearts of lettuce salad, small amount dressing. Toast, butter. Milk. Baked apple.	Cream soup. Celery root. Mashed potato. Poached egg on toast. Sliced tomato. Toast, butter. Milk. Apricots.
Fresh fruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Cottage cheese timbale. Baked potato. Buttered summer squash. Pear-apricot salad. Toast, butter. Milk. Floating island pudding.	Cream tomato soup. Artichoke, butter sauce. Steamed rice. Carrots. Fruit salad with whipped cream. Toast, butter. Milk. Peach ice cream. Ladyfingers.
Sliced grapefruit. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Corn timbale. Summer squash. Baked potato. Carrot-raisin salad, boiled dressing. Toast, butter. Milk. Canned fruit.	Cream soup. Rice. Turnips. Baked fresh tomato. Cottage cheese-pear salad, mayonnaise. Toast, butter. Milk. Fresh fruit. Ladyfingers.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Low purin—Continued

Breakfast	Dinner	Supper
Oranges. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Cottage cheese. Cream potato. Baked squash. Buttered onions. Fruit salad with whipped cream. Toast, butter. Milk. Fresh banana.	Cream soup. Squash. Turnips. Rice. Egg salad with sliced tomato. Toast, butter. Fresh strawberries.
Grapefruit juice. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Mashed potato. Carrots. Buttered onion. Mixed fruit salad, boiled dressing. Toast, butter. Milk. Angel food cake.	Cream soup. Baked potato. Mashed squash. String beans. Hearts of lettuce and egg, French dressing. Toast, butter. Milk. Sliced fruit.
Grapefruit. Flaked wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Cream potato. Egg in ramikin. Steamed celery. Candlestick salad. Toast, butter. Milk. Bread pudding, sauce.	Cream soup. Cottage cheese. Rice. Beets. Sliced tomatoes. Toast, butter. Milk. Date custard.
Fresh fruit. Flaked wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Mashed potatoes. Eggplant. Artichoke, butter sauce. Cabbage salad, boiled dressing. Toast, butter. Milk. Apple sauce.	Cream tomato soup. Diced potato. Celery root timbale. Buttered rutabagas. Fruit salad. Toast, butter. Milk. Ice cream.
Sliced peaches. Flaked wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Celery root timbale. Rice. Italian squash. Sliced tomato salad. Toast, butter. Milk. Pears. Pumpkin custard.	Cream soup. Baked potato. Cheese soufflé. Carrots. Lettuce salad, French dressing. Toast, butter. Milk. Sliced fruit.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Low purin—Continued

Breakfast	Dinner	Supper
Banana. Flaked wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Corn cup. Baked fresh tomato. Mashed potato. Star salad, boiled dressing. Toast, butter. Milk. Orange ice. Ladyfingers.	Cream soup. Duchess potato. Baked banana squash. Cheese. Hearts of lettuce, thousand island dressing. Toast, butter. Milk. Fruit cup.
Prunes. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Cream soup. Steamed rice. Buttered celery root. Buttered beets. Hearts of lettuce. Toast, butter. Milk. Peaches. Cottage cheese.	Cream soup. Baked potato. Artichoke, butter sauce. Buttered carrots. Star salad. Toast, butter. Milk. Cherries.
Stewed prunes. Cream of wheat. Eggs. Toast, butter. Milk, cream.	Fruit cocktail. Cream tomato soup. Mashed potato. Buttered cabbage. Stewed celery. Toast, butter. Milk. Philadelphia cream cheese. Orange sherbet.	Cream soup. Baked eggplant. Mashed potato. Artichoke, hollandaise sauce. Sliced tomato salad. Toast, butter. Milk. Fresh fruit.

191. Low salt anticonstipation.

Breakfast	Dinner	Supper
Apple sauce. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Baked sea bass, salt-free butter. Salt-free spinach. Boiled potato, small. Fruit salad. Graham toast, salt free butter. Orange sherbet.	Baked potato with skin. Baked fresh tomato. Salt-free buttered onions. Peas. Date-orange salad. Graham toast, salt-free butter. Milk, ½ glass.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Low salt anticonstipation—Continued

Breakfast	Dinner	Supper
Sliced grapefruit. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Cream soup with agar. Baked fresh tomato. Salt-free buttered cauliflower. Eggplant-corn timbale. Cole slaw, salt-free dressing. Graham toast, salt-free butter. Canned fruit.	Cream soup with agar. Fresh string beans. Squash. Baked potato, small, with skin. Hearts of lettuce, salt-free dressing. Graham toast, salt-free butter. Baked apple with whipped cream.
Fresh oranges, 2. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Loin lamb chop. Baked eggplant. Salt-free buttered onions. Apple-grapefruit salad, lemon juice. Graham toast, salt-free butter. Peach sherbet.	Cream soup with agar. Salt-free buttered turnips. Baked fresh tomato. Small boiled potato. Graham toast, salt-free butter. Star salad. Sliced fruit.
Oranges. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Salt-free buttered summer squash. Onions. Small baked potato with skin. Pear-apricot salad with whipped cream. Graham toast, salt-free butter. Sliced oranges. Milk, ½ glass.	Diced chicken, 40 grams, in 30 grams table cream. Fresh carrots. Artichoke, salt-free butter sauce. Fruit salad. Graham toast, salt-free butter. Peach ice cream.
Sliced banana. Bran cereal. Egg, 1. Graham toast, salt-free butter. Cream.	Chicken, 40 grams. Fresh asparagus tips. Salt-free buttered corn. Salad of fruits. Graham toast, salt-free butter. Milk, ½ glass. Orange ice.	Small boiled potato. Baked squash. Salt-free buttered fresh peas. Hearts of lettuce salad, salt-free dressing. Graham toast, salt-free butter. Fruit cup (large order). Fresh fruit.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Low salt anticonstipation—Continued

Breakfast	Dinner	Supper
Sliced orange. Bran cereal. Egg, 1. Graham toast, salt-free butter. Cream.	Small loin lamb chop. Salt-free buttered cauliflower. Fresh carrots. Fruit salad. Graham toast, salt-free butter. Applesauce.	Baked potato with skin. Mashed squash. String beans. Lettuce with lemon. Graham toast, salt-free butter. Sliced fruit. Milk, ½ glass.
Apple sauce, large order. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Baked halibut, 50 grams, with salt-free butter. Salt-free buttered string beans. Salt-free buttered rutabagas. Pear-date salad. Graham toast, salt-free butter. Sliced apricots.	Diced chicken, 40 grams, in 25 grams table cream. Broccoli, salt-free butter. Buttered squash. Candlestick salad. Graham toast, salt-free butter. Sliced fruit.
Apple sauce, large order. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Small loin lamb chop. Summer squash. Fresh beets. Star salad. Graham toast, salt-free butter. Canned fruit.	Diced chicken, 45 grams, in 25 grams table cream. Squash, salt-free butter. Salt-free buttered broccoli. Sliced tomato salad. Graham toast, salt-free butter. Ice cream.
Oranges, 2. Bran cereal. Egg, 1. Graham toast, salt-free butter. Cream.	Broiled chicken, ¼. Salt-free buttered cabbage. Baked fresh tomato. Fruit cocktail. Graham toast, salt-free butter. Special ice cream.	Salt-free buttered onions. Salt-free buttered string beans. Baked potato, small, with skin. Fruit salad. Graham toast, salt-free butter. Baked apple with whipped cream.
Sliced grapefruit. Bran cereal. Egg, 1. Graham toast, salt-free butter. Cream.	Cream soup with agar. Summer squash. Baked potato with skin. Chard. Pear-orange salad. Graham toast, salt-free butter. Canned fruit.	Chicken, 40 grams, in 25 grams table cream. Fresh cauliflower. Fresh asparagus tips. Hearts of lettuce, salt-free mayonnaise. Graham toast, salt-free butter. Pineapple delight.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Low salt anticonstipation—Continued

Breakfast	Dinner	Supper
Baked apple. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Cream soup with agar. Banana squash. Rutabagas. Boiled potato, small. Peach-date salad. Graham toast, salt-free butter. Pear au gratin.	Baked fresh tomato. Salt-free cauliflower. Boiled potato, small. Artichoke salad, salt-free dressing. Graham toast, salt-free butter. Milk, ½ glass. Fruit cup.
Grapefruit, ½. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Loin lamb chop. Fresh asparagus tips. Baked squash. Lettuce with lemon. Graham toast, salt-free butter. Fresh pineapple.	Beef patty, 40 grams. Salt-free buttered cauliflower. Fresh carrots. Fruit salad with whipped cream. Graham toast, salt-free butter. Spanish cream.
Apricots. Bran cereal. Egg, 1. Graham toast, salt-free butter. Milk, ½ glass. Cream.	Baked halibut, 40 grams, with lemon. Salt-free buttered cauliflower. Fresh carrots. Candlestick salad, salt-free mayonnaise. Graham toast, butter. Peaches.	Cream soup with agar. Summer squash. Baked potato with skin. Salt-free buttered onions. Lettuce, salt-free dressing. Graham toast, salt-free butter. Sliced fruit.

192. High caloric, high vitamin, low residue.

Breakfast	Dinner	Supper
Puréed fruit. Cream of wheat. Eggs. Crisp bacon. Toast, butter. Milk, cream. 10:00 AM. Fruit juice.	Strained soup, crackers. Boiled potato. Puréed zuccini. Carrot timbale. Toast, white. Butter, 2 squares. Milk, cream. Gelatin with whipped cream. 3:00 PM. Eggnog.	Strained tomato bouillon. Creamed eggs. Steamed rice. Fresh asparagus tips. Toast, butter, 2 squares. Milk, cream. Prune whip. Ladyfingers. 9:00 PM. Orange juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

High caloric, high vitamin, low residue—Continued

Breakfast	Dinner	Supper
Apple sauce. Cream of wheat. Eggs. Crisp bacon. Toast, white. Butter, 2 squares. Milk, ¾, and cream, ¼. 10:00 AM. Tomato juice, buttered crackers.	Cream soup, crackers. Choice roast lamb, strained gravy. Mashed potato. Celery root timbale. Puréed buttered carrots. Toast, white. Butter, 2 squares. Milk, ¾, and cream, ¼. Orange ice. 3:00 PM. Eggnog.	Cream soup. Special scalloped sweetbreads. Creamed potato. Puréed lima bean timbale. Fresh asparagus tips. Toast, white. Butter, 2 squares. Milk, ¾, and cream, ¼. Pineapple Bavarian cream. 9:00 PM. Orange juice.
Orange juice. Banana. Cream of wheat. Eggs. Bacon. Toast, white. Butter, 2 squares. Milk, cream. 10:00 AM. Orange juice.	Strained chicken soup, crackers. Roast chicken, no skin, strained gravy. Mashed potato. Puréed buttered peas. Savory custard. Toast, white. Butter, 2 squares. Milk, ¾, and cream, ¼. Vanilla ice cream. 3:00 PM. Tomato juice.	Strained cream of tomato soup. Tuna timbale. Puréed lima beans. Mashed sweet potato. Puréed squash. Toast, white. Butter, 2 squares. Milk, ¾, and cream, ¼. Baked apple, peeled, with whipped cream. Orange. 9:00 PM. Eggnog.
Pineapple juice. Puréed fruit. Flaked wheat. Eggs. Bacon. Toast, butter, 2 squares. Milk, cream. 10:00 AM. Tomato or orange juice.	Strained soup, crackers. Scalloped sweetbreads. Baked potato, peeled. Puréed beets. Celery root timbale. Toast, white. Butter, 2 squares. Milk, ¾, and cream, ¼. Butterscotch pudding with whipped cream. 3:00 PM. Eggnog, buttered crackers.	Strained soup, crackers. Cottage cheese. Loin lamb chops. Steamed rice. Puréed carrots. Toast, white. Butter, 2 squares. Milk, ¾, and cream, ¼. Puréed nectarines. 9:00 PM. Tomato juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

High caloric, high vitamin, low residue—Continued

Breakfast	Dinner	Supper
Banana. Flaked wheat. Eggs. Crisp bacon. Toast, white. Butter, 2 squares. Milk, cream. 10:00 AM. Orange juice.	Strained English broth. Tenderloin steak. Puréed Italian squash. Puréed buttered beets. Toast, butter, 2 squares. Milk, ¾, and cream, ¼. Floating island pudding. 3:00 PM. Tomato juice, buttered crackers.	Strained corn chowder. White meat chicken, cream gravy. Steamed rice. Puréed string beans. Artichoke salad, mayonnaise. Toast, white. Butter, 2 squares. Milk, ¾, and cream, ¼. Gelatin with whipped cream. 9:00 PM. Orange juice.
Tomatojuice. Grapefruit, ½. Cream of wheat. Eggs. Crisp bacon. Toast, white. Butter, 2 squares. Milk, cream. 10:00 AM. Orange juice.	Strained cream soup. Broiled lamb chop. Boiled potato. Puréed squash soufflé. Asparagus tips. Toast, butter, 2 squares. Milk, ¾, and cream, ¼. Custard. 3:00 PM. Orange juice.	Cream soup, crackers. Scrambled eggs with brains. Mashed potato (large order). Puréed buttered carrots. Toast, butter, 2 squares. Milk, ¾, and cream, ¼. Ripe banana. Spanish cream. 9:00 PM. Eggnog.
Tomato juice. Puréed fruit. Cream of wheat. Eggs. Crisp bacon. Toast, white. Butter, 2 squares. Milk, cream. 10:00 AM. Orange juice.	Cream soup, crackers. Creamed sweetbreads. Baked potato, peeled. Fresh asparagus tips. Toast, white. Butter, 2 squares. Milk, cream. Tomato juice. Custard. 3:00 PM. Fruit juice.	Cream soup, crackers. Loin lamb chop. Mashed potato. Puréed buttered peas. Toast, white. Butter, 2 squares. Milk, cream. Chocolate sponge. Fruit juice. 9:00 PM. Eggnog.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

High caloric, high vitamin, low residue—Continued

Breakfast	Dinner	Supper
Orange juice. Cream of wheat. Eggs. Crisp bacon. Toast, white. Butter, 2 squares. Milk, cream. Jelly. 10:00 AM. Glass milk, ¾ with cream, ¼.	Cream soup, crackers. White meat chicken, cream strained gravy. Mashed potato. Puréed buttered peas. Toast, white. Butter, 2 squares. Milk, cream. Cottage cheese and cream. Butterscotch ice cream. Ladyfingers. 3:00 PM. Tomato juice, crackers.	Strained soup, crackers. Tuna fish timbale. Steamed rice. Puréed string beans. Toast, butter. Milk, cream. Asparagus tips, mayonnaise. Baked apple, peeled, with whipped cream. 9:00 PM. Eggnog, crackers.
Banana. Puréed fruit. Cream of wheat. Orange juice. Eggs. Bacon. Toast, white. Butter, 2 squares. Milk, cream. 10:00 AM. Eggnog, buttered crackers.	Cream soup, crackers. Fluffed meat ball. Butter fresh asparagus tips. Mashed potato. Celery root timbale. Toast, white. Butter, 2 squares. Prune whip. Milk. 3:00 PM. Tomato juice, buttered white toast.	Cream mushroom soup. Lamb chop. Mashed potato. Puréed spinach. Puréed carrots. Toast, white. Butter, 2 squares. Floating island pudding. 9:00 PM. Orange juice.

193. Dental high caloric, high vitamin.

Breakfast	Dinner	Supper
Orange juice. Fresh banana. Cooked cereal. Eggs. Graham toast, butter, 2 squares. Milk, cream. 10:00 AM. Orange or tomato juice.	Chicken rice soup. Ground chicken. Mashed potato. Purée of peas. Savory custard. Graham bread, butter. Milk, ¾, and cream, ¼. Vanilla ice cream. 3:00 PM. Tomato juice.	Cream tomato soup. Ground roast beef. Puréed lima beans. Puréed squash. Graham bread, butter. Milk, ¾, and cream, ¼. Baked apple with whipped cream. 9:00 PM. Eggnog.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Dental high caloric, high vitamin—Continued

Breakfast	Dinner	Supper
Pineapple juice. Puréed fruit. Flaked wheat. Eggs. Graham bread, butter, 2 squares. Milk, cream. 10:00 AM. Tomato or orange juice.	Split pea soup. Grated roast veal, gravy. Scalloped sweetbreads. Baked potato, butter. Puréed beets. Celery root. Graham bread, butter, 2 squares. Milk, ¾, cream, ¼. Sliced oranges. 3:00 PM. Eggnog.	Soup, crackers. Ground frankfurters. Puréed carrots. Cottage cheese. Steamed rice. Graham bread, butter, 2 squares. Milk, ¾, and cream, ¼. Puréed nectarines. 9:00 PM. Tomato juice.
Puréed prunes. Cream of wheat. Eggs. Graham toast, butter, 2 squares. Milk, cream. 10:00 AM. Orange juice.	Soup, crackers. Lamb patty. Steamed rice. Scalloped tomato. Eggplant timbale. Graham bread. Hot corn bread. Butter, 2 squares. Milk, ¾, and cream, ¼. Tapioca pudding, sauce. 2:00 PM. Eggnog.	Bouillon. Scrambled eggs and brains. Scalloped potato. Artichoke, hollandaise sauce. Cottage cheese. Graham bread, butter, 2 squares. Milk, ¾, and cream, ¼. Orange delight. 9:00 PM. Tomato juice.
Puréed fruit. Cooked cereal. Eggs. Graham toast, butter, 2 squares. Milk, cream. 10:00 AM. Fruit juice.	Soup, crackers. Scalloped brains. Boiled potato. Puréed zuccini. Banana-orange salad. Graham bread, butter, 2 squares. Milk, ¾, and cream, ¼. Gelatin with whipped cream. 3:00 PM. Eggnog.	Tomato bouillon. Ground roast veal, cream gravy. Asparagus tips. Graham bread, butter, 2 squares. Milk, ¾, and cream, ¼. Prune whip. Ladyfingers. 9:00 PM. Tomato juice.
Apple sauce. Cream of wheat. Graham bread, butter, 2 squares. Milk, cream. 10:00 AM. Tomato or orange juice.	Clam chowder. Baked sea bass. Creamed potato. Cheese soufflé. Puréed spinach. Graham bread, butter, 2 squares. Milk, ¾, and cream, ¼. Bread pudding, chocolate sauce. 3:00 PM. Tomato juice.	Vegetable soup, crackers. Ground roast beef. Baked potato stuffed with ground liver. Buttered puréed beans. Graham bread, butter, 2 squares. Milk, ¾, and cream, ¼. Marshmallow pudding, sauce. 9:00 PM. Eggnog.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Dental high caloric, high vitamin—Continued

Breakfast	Dinner	Supper
Fresh banana. Grapefruit juice. Cream of wheat. Eggs. Graham toast, butter, 2 squares. Milk, cream. 10:00 AM. Eggnog, crackers.	Barley soup. Ground chicken, gravy. Mashed potato. Fresh asparagus tips. Chopped boiled cabbage. Graham bread, butter, 2 squares. Milk. Prune whip with whipped cream. 3:00 PM. Tomato juice, buttered crackers.	Mushroom soup. Ground roast lamb, gravy. Mashed potato. Puréed spinach. Puréed carrots. Graham bread, butter, 2 squares. Milk. Floating island pudding. 9:00 PM. Orange juice.
Puréed fruit. Orange juice. Oatmeal. Eggs. Graham bread, butter, 2 squares. Milk, cream. 10:00 AM. Eggnog, crackers.	Strained soup. Ground ham, gravy. Creamed potato. Scalloped tomato. Graham bread, butter, 2 squares. Milk, ¾, and cream, ¼. Baked banana. 3:00 PM. Orange juice.	Strained soup, crackers. Ground roast veal, gravy. Mashed potato, extra butter. Puréed buttered beets. Graham bread, butter, 2 squares. Milk, ¾, and cream, ¼. Spanish cream. 9:00 PM. Tomato juice.

194. Bland.

Breakfast	Dinner	Supper
Orange juice. Oatmeal. Poached eggs. Bacon. Toast, white, butter. Milk, sanka, or postum.	Creamed soup. Broiled chicken. Graham bread, butter. Mashed potatoes. Baked squash. Asparagus tips. Lettuce-pear salad (shred tender lettuce). Ice cream. Milk or Kaffee hag.	Scraped beef balls. Scalloped potato. Creamed peas. Graham toast, butter. Stewed peaches. Rice pudding. Milk.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Bland—Continued

Breakfast	Dinner	Supper
Apple sauce. Cream of wheat. Egg soufflé. Bacon. Toast, white, butter. Milk, Sanka, or postum.	Strained vegetable soup. Creamed sweetbreads. Baked potato. Diced carrots. Tender string beans. Graham bread, butter. Shredded lettuce and asparagus salad. Tapioca pudding. Milk or Kaffee hag.	Liver and bacon. Boiled rice. Sliced beets. Graham toast, butter. Canned pears. Gelatin with cream. Milk or Sanka.
Banana with cream. Corn flakes. Poached eggs. Bacon. Toast, white, butter. Milk, Kaffee hag, or postum.	Creamed soup. Broiled lamb chops. Graham toast, butter. Baked potato. Spinach. Purée of prunes. Cup custard. Milk or Sanka.	Broiled steak. Boiled potato. Tender string beans. Graham toast, butter. Sponge cake. Milk or Sanka.
Orange juice. Baked omelet. Bacon. Graham toast, butter. Milk or postum.	Strained vegetable soup. Roast veal. Creamed potatoes. Mashed peas. Baked squash. Banana-pear salad. Bread, white, butter. Tapioca pudding. Milk or Sanka.	Cottage cheese. Boiled potatoes. Boiled beets. Graham toast, butter. Stewed apricots. Plain cookies. Milk or postum.
Apple sauce. Puffed rice. Poached eggs. Bacon. Toast, white, butter. Milk or Sanka.	Creamed asparagus soup. Broiled fish. Boiled potatoes. Diced carrots. Tender string beans. Graham bread, butter. Sliced ripe pears. Graham whip. Milk or Kaffee hag.	Broiled liver. Baked potato. Buttered cauliflower. Graham toast, butter. Stewed peaches. Blanc mange. Milk or postum.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

195. Tuberculosis.—*a. Regular.*

Breakfast	Dinner	Supper
Figs. Cooked cereal. Eggs. Bacon. Toast, butter. Milk, cream.	Soup. Small steak. Boiled potato. Baked zuccini. Banana salad, mayonnaise. Toast, butter. Milk. Apple pie, cheese.	Tomato bouillon. Grilled pork chops, cream gravy. Steamed rice. Fresh asparagus tips. Lettuce, fresh, French dressing. Toast, butter. Milk. Prune whip. Cookies.
Apple sauce. Cooked cereal. Eggs. Crisp bacon. Toast, butter, jam. Milk, cream.	Oxtail soup, breadsticks. Roast lamb, gravy. Mint jelly. Mashed potato. Buttered peas. Celery root-pineapple salad, boiled dressing. Toast, butter. Milk. Orange ice. Cookies.	Soup. Baked veal loaf, tomato sauce. Creamed potato. Baked eggplant. Cole slaw. Toast, butter. Milk. Pineapple Bavarian cream.
Banana. Cream of wheat. Eggs. Crisp bacon. Toast, butter. Milk, cream.	Barley soup. Fluffed meat balls. Boiled potato. Fresh asparagus tips, butter. Mixed fruit salad, boiled dressing. Toast, butter. Milk, cream. Prune whip with whipped cream.	Mushroom soup. Short ribs of beef, gravy. Mashed potato. Buttered carrots-peas. Wilted lettuce. Toast, butter. Milk, cream. Floating island pudding.
Stewed rhubarb. Cooked cereal. Eggs. Crisp bacon. Toast, butter, jam. Milk, cream.	Lima bean soup. Small broiled steak. Boiled potato. Glazed potato (sweet). Perfection salad, mayonnaise. Toast, butter. Milk, cream. Apple pie, cheese.	Vegetable soup. Grilled pork chops, cream gravy. Mashed potato. Fresh asparagus tips. Shredded lettuce. Toast, butter. Milk, cream. Apricots. Jelly roll.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

a. Regular—Continued

Breakfast	Dinner	Supper
Apple sauce. Cream of wheat. Eggs. Fried ham. Toast, butter, jam. Milk, cream.	Clam chowder. Fried scallops, tartar sauce. Creamed potato. Scalloped corn. Cole slaw, cream dressing. Bread, butter. Milk, cream. Bread pudding, chocolate sauce.	Vegetable soup. Broiled lamb chops, cream gravy. Baked potato. Buttered string beans. Combination vegetable salad, mayonnaise. Toast, butter. Milk, cream. Marshmallow pudding.
Apple sauce. Flaked wheat. Eggs. Crisp bacon. Toast, butter. Milk, cream.	Vegetable soup. Creamed lamb on toast. Mashed potato. Buttered beets. Banana salad, mayonnaise. Toast, butter. Milk. Tapioca cream pudding.	Tomato bouillon. Chicken croquettes, giblet gravy. Steamed rice. Broccoli with hollandaise sauce. Asparagus salad, mayonnaise. Toast, butter. Milk, cream. Ice cream. Cookies.
Banana. Cooked cereal. Eggs. Bacon. Toast, butter. Milk, cream.	Oxtail soup. Small broiled steak. Boiled potato. Buttered diced carrots. Combination vegetable salad, mayonnaise. Toast, butter. Milk, cream. Butterscotch pie. Fresh fruit.	Cream pea soup. Fried oysters, tomato sauce. Boiled potato. Artichoke with hollandaise sauce. Shredded lettuce, French dressing. Toast, butter. Milk, cream. Sliced fruit.
Tomato juice. Cream of wheat. Eggs. Fried bacon. Toast, butter. Milk, cream.	Bean soup. Broiled lamb chop. Boiled potato. Baked squash. Vegetable salad, mayonnaise. Toast, butter. Milk. Chocolate cream pie.	Noodle soup. Hot roast beef sandwich, brown gravy. Mashed potato. Buttered carrots. Lettuce, French dressing. Toast, butter. Milk. Banana and cream.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

a. Regular—Continued

Breakfast	Dinner	Supper
Pineapple juice. Flaked wheat. Eggs. Bacon. Toast, butter, jelly. Milk, cream.	Split pea soup. Roast veal, gravy. Baked potato. Creamed cauliflower. Pickled beet and egg salad. Toast, butter. Milk, cream. Butterscotch pie. Fresh fruit.	Scotch barley broth. Lamb chop. Hashed brown potato. Glazed carrots. Wilted lettuce. Toast, butter. Milk, cream. Sliced fruit.
Oranges. Cooked cereal. Eggs. Fried ham. Toast, butter, jelly. Milk, cream.	Fruit cocktail. Noodle soup. Broiled chicken, cream gravy. Baked sweetpotato. Buttered peas. Toast, butter. Milk, cream. Special ice cream. Ladyfingers.	Jackson soup, crackers. Tuna fish timbale. Creamed hominy. Buttered string beans. Sliced tomato-asparagus salad, mayonnaise. Toast, butter. Milk, cream. Baked apple, whipped cream.
Figs. Oatmeal. Eggs. Crisp bacon. Toast, butter. Milk, cream.	Soup. Broiled lamb chop. Creamed potato. Baked squash, creamed dressing. Toast, butter. Milk, cream. Fresh banana.	Mock turtle soup. Creamed eggs. Mashed potato. Buttered beets. Hearts of lettuce, French dressing. Toast, butter. Milk, cream. Spanish cream.
Sliced grapefruit. Oatmeal. Eggs. Bacon. Toast, butter. Milk, cream.	Potato chowder. Roast beef, gravy. Baked potato. Swiss chard. Carrot-raisin salad, boiled dressing. Toast, butter. Milk. Tapioca cream pudding.	Tomato bouillon. Creamed chicken on toast. Steamed rice. Fresh asparagus tips. Cottage cheese-pear salad, mayonnaise. Toast, butter. Milk, cream. Fresh fruit.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

b. Enteric.

Breakfast	Dinner	Supper
Tomato juice. Oatmeal, strained. Bacon, 2 slices. White toast, butter. Milk, coffee. 10:00 AM. Cocoa milk.	Cream of mushroom soup, crackers. Broiled steak. Baked potato. Puréed carrots. White toast, butter. Milk. Bananas in gelatin. 2:00 PM. Eggnog.	Strained lima bean soup, crackers. Broiled filet of sole. Scalloped potatoes. Puréed beets. White toast, butter. Boiled custard. 9:00 PM. Junket.
Orange juice. Corn flakes. Broiled ham. White toast, butter. Milk, coffee. 10:00 AM. Malted milk.	Consomme, crackers. Veal loaf, cream sauce gravy. Mashed potatoes. Puréed peas. White toast, butter. Milk. Sponge cake, whipped cream. 2:00 PM. Grape juice.	Grapejuice cocktail, crackers. Broiled liver and bacon. Potatoes on half shell. Puréed string beans. White toast, butter. Milk. Custard ice cream. 9:00 PM. Glass of milk.
Sliced bananas. Rice crispies. Bacon. Scrambled eggs. White toast, butter. Milk, coffee. 10:00 AM. Orange juice.	Cream of celery soup, crackers. Broiled chicken. Tender asparagus tips. Parsley new potatoes. White toast, butter. Milk. Fruit compote, peaches, apples, apricots. 2:00 PM. Chocolate milk.	Cold tomato consomme, crackers. Hot roast beef sliced on toast, gravy. Mashed potato. Puréed turnips. Milk. Orange sponge pudding. 9:00 PM. Tomato juice.
Puréed fruit (prunes). Cream of wheat. Eggs. Bacon. White toast, butter. Milk, coffee. 10:00 AM. Grapefruit juice.	Strained vegetable soup, crackers. Roast lamb, strained gravy. Mashed potato. Puréed buttered carrots. White toast. Milk. Orange ice. 2:00 PM. Malted milk.	Cream asparagus soup, crackers. Scalloped sweetbreads. Baked potato. Puréed lima bean timbale. Baked squash. White toast, butter. Milk. Cup custard. 9:00 PM. Orange juice.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

c. Laryngeal.

Breakfast	Dinner	Supper
Prune juice. Strained thin oatmeal. Coddled eggs. Toast, salt-free. Coffee. 10:00 AM. Tomato juice.	Boiled whitefish, boned, cream sauce. Baked potato. Puréed peas. Bread, salt-free. Plain ice cream. Tea or coffee. 2:00 PM. Grapefruit juice.	Cream of asparagus soup. Poached eggs on toast. Puréed carrots. Boiled potato. Bread, salt-free. Lemon snow with boiled custard. 9:00 PM. Orange juice.
Orange juice. Strained cream of wheat. Skim milk. Broiled sweetbreads. Toast, salt-free. Coffee. 10:00 AM. Malted milk.	Liver loaf. Scalloped potatoes. Puréed string beans. Bread, salt-free. Floating island pudding. Coffee or tea. 2:00 PM. Orange juice.	Eggnog. Scalloped tuna and potato casserole. Puréed spinach timbale. Bread, salt-free. Whipped Gelatin. Coffee or tea. 9:00 PM. Grape juice.
Tomato juice. Strained farina. Crisp bacon. Scrambled eggs. Toast, salt-free. Skim milk. Coffee. 10:00 AM. Strained apricot juice.	Sliced white meat of roast chicken. Creamed potatoes. Puréed spinach. Bread, salt-free. Banana custard. Coffee or tea. 2:00 PM. Tomato juice.	Cream of tomato soup. Scraped beef. Baked potato. Purée summer squash. Bread, salt-free. Plain ice cream. Coffee. 9:00 PM. Malted milk.
Grapefruit juice. Oatmeal with skim milk. Crisp bacon. Soft-boiled eggs. Toast, salt-free. Coffee. 10:00 AM. Prune juice.	Creamed chicken on toast. Puréed beans. Creamed cauliflower. Bread, salt-free. Cup custard. Tea or coffee. 2:00 PM. Eggnog.	Cream of celery soup. Roast beef. Puréed beets. Baked potato. Bread, salt-free. Banana-cottage cheese salad. Apple sauce. Coffee, cream, sugar. 9:00 PM. Orange juice.

NOTE.—If there is much difficulty in swallowing the above food, tube diets listed in paragraph 14 may be tried.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Digitized by Google

Original from
UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLES OF FOOD COMPOSITION, WEIGHTS, AND MEASURES

TABLE I.—*Proximate composition of American food materials*

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Abalone, fresh or canned solids	21. 7	0. 5	2. 4
Almonds, dried, unblanched	18. 6	54. 1	19. 6
Almond meal, partially defatted	39. 5	18. 3	28. 9
Anchovies	19. 2	10. 3	. 3
Anchovy paste	20. 2	11. 6	4. 3
Apples, fresh	. 3	. 4	14. 9
Apple juice, fresh	. 1	. 0	12. 5
Apple sauce, canned, unsweetened	. 2	. 2	10. 9
Apricots:			
Fresh	1. 0	. 1	12. 9
Canned, water pack	. 5	. 1	8. 1
Dried	5. 2	. 4	66. 9
Artichokes, globe or French, fresh	2. 9	. 4	11. 9
Asparagus:			
Fresh	2. 2	. 2	3. 9
Canned	1. 7	. 1	3. 0
Avocados (Fuerte), fresh	1. 7	26. 4	5. 1
Bacon:			
Raw, lean	12. 2	53.	(1. 4)
Raw, medium	9. 1	65.	(1. 1)
Broiled	25.	55.	1.
Bamboo shoots, fresh	2. 5	. 3	5. 1
Bananas, fresh	1. 2	. 2	23. 0
Barley flour	10. 2	1. 7	76. 9
Barracuda, California, raw	21. 2	3. 1	0.
Bass:			
Atlantic black sea, raw	19. 2	1. 2	0.
California white sea, raw	21. 4	. 5	0.
Striped, raw	18. 9	2. 7	0.
Beans:			
Fresh	8. 1	. 6	15. 8
Fresh, shelled	7. 5	. 8	23. 5
Mung bean sprouts	2. 9	. 3	4. 0
Snap beans, green or wax (common or kidney)	2. 4	. 2	7. 7
Canned:			
Baked with pork	5. 7	2. 0	19. 0
Lima	5.	. 5	13.
Green or wax	1. 0	. 1	3. 3
Lima, green	20. 7	1. 3	61. 6

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Beechnuts	20. 0	57. 4	15. 0
Beef:			
Fresh, medium grade	17. 5	22.	0.
Wholesale cuts, medium grade	18. 6	16.	0.
Kidney fat (suet), medium	1. 7	93.	0.
Loin, medium	16. 9	25.	0.
Fresh:			
Neck, medium	18. 2	19.	0.
Plate and brisket, medium	15. 8	30.	0.
Rib, medium	17. 4	23.	0.
Round, medium	19. 3	13.	0.
Rump, medium	15. 5	31.	0.
Shank, fore, medium	20. 4	9.	0.
Shank, hind, medium	20. 1	10.	0.
Canned:			
Corned beef hash	12. 8	5. 5	8. 7
Roast beef	25.	13. 0	0.
Corned:			
Medium	15. 8	25.	0.
Canned, medium	25. 3	12.	0.
Beer	. 6	. 0	(4. 4)
Beets:			
Fresh	1. 6	. 1	9. 6
Canned	1. 5	. 1	. 9
Greens, fresh	2. 0	. 3	5. 6
Sugar beet	2. 2	. 1	8. 9
Beverages:			
Carbonated, ginger ale	----------	----------	9.
Others, including kola type	----------	----------	12.
Biscuits, baking powder or soda	7. 3	13.	46. 2
Blackberries:			
Fresh	1. 2	1. 1	11. 9
Canned, water pack	. 9	. 7	9. 4
Juice, fresh	. 3	. 0	7. 9
Blueberries:			
Fresh	. 6	. 6	15. 1
Canned, water pack	. 4	. 4	9.
Juice, fresh	. 1	. 0	13. 8
Bluefish or tailor, raw	20. 5	4. 0	0.
Bouillon cubes	(6.)	2. 5	(0.)
Brains, fresh beef	10. 5	8. 8	1. 4
Brazil nuts	14. 4	65. 9	11. 0
Bread:			
Biscuits	7. 3	13.	46. 2
Boston brown	4. 9	2. 5	41. 2
French	8. 4	1. 0	55. 2

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Bread—Continued.			
Gluten	25. 1	3. 8	30. 2
Graham (made with milk)	10.	4.	47.
Raisin	9.	3.	53. 0
Rolls	8. 2	6. 1	54. 1
Rye:			
American	8. 9	2. 0	49. 7
Black or pumpernickel	6. 7	1. 2	49. 7
Toast:			
Melba	12. 6	3. 0	77. 5
Plain	10. 1	2. 4	62. 0
Vienna	8. 4	1. 0	55. 3
White, commercial	8. 5	2. 0	52. 3
Zwieback	10. 9	8. 6	74. 3
Broccoli, fresh	3. 3	. 2	5. 5
Brussels sprouts, fresh	4. 4	. 5	8. 9
Buckwheat flour:			
Dark and very dark	12. 4	2. 4	71. 6
Light and very light	6. 3	1. 1	79. 7
Pancake	11. 3	2. 2	70. 0
Butter	. 6	81. 0	. 4
Buttermilk:			
Genuine	3. 5	. 5	4. 6
Artificially cultured	3. 5	. 2	5. 0
Butternuts	23. 7	61. 2	8. 4
Cabbage:			
Fresh	1. 4	. 2	5. 3
Chinese, fresh	1. 4	0. 1	2. 4
Carrots:			
Fresh	1. 2	. 3	9. 3
Canned	1. 0	. 3	7. 6
Cashew nuts	19. 6	47. 2	26. 4
Catchup, tomato	2. 0	. 4	24. 5
Cauliflower:			
Fresh	2. 4	0. 2	4. 9
Canned	1.	. 2	3. 0
Caviar, sturgeon:			
Granular	26. 9	15. 0	(0.)
Pressed	34. 4	16. 7	(0.)
Celery:			
Fresh	1. 3	. 2	3. 7
Canned, sieved	. 9	. 2	4. 1
Chard, fresh:			
Leaves only	2. 6	. 4	4. 8
Leaves and stalks	1. 4	. 2	4. 4

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Cheese:			
Camembert	19. 7	25. 2	0. 0
Cheddar, American	23. 9	32. 3	1. 7
Cheddar, processed	22. 3	30. 2	1. 7
Cottage (from skim milk)	19. 2	. 8	4. 3
Cream (Neufchatel type)	7. 1	36. 9	1. 7
Edam	27. 0	20. 1	4. 0
Liederkranz	15. 8	25. 6	1. 1
Limburger	23. 5	32. 4	. 7
Limburger, processed	21. 2	26. 4	. 7
Roquefort	21. 7	33. 2	1. 4
Swiss	28. 6	31. 3	1. 9
Swiss, processed	23. 8	26. 1	1. 6
Cherries:			
Fresh:			
Sour, sweet, and hybrid	1. 1	. 5	14. 8
Sour	1. 3	. 5	13. 3
Sweet	1. 1	. 5	17. 8
Canned, water pack	. 6	. 2	9. 8
Chestnuts:			
Fresh	2. 8	1. 5	41. 5
Dried	6. 7	4. 1	78. 6
Chestnut flour	6. 1	3. 7	75. 9
Chicken, fresh:			
Broilers	20. 2	7. 2	0.
Broilers, flesh only	20. 6	4. 4	0.
Fryers	20. 0	11. 0	0.
Fryers, flesh only	20. 6	4. 8	0.
Roasters	20. 2	12. 6	0.
Roasters, flesh only	21. 1	4. 5	0.
Hens and cocks	18. 0	25. 0	0.
Hens and cocks, flesh only	21. 3	7. 1	0.
Capons	21. 4	21. 2	0.
All classes, light meat	23. 3	3. 2	0.
All classes, dark meat	21. 0	4. 7	0.
Chickpeas, dry	20. 8	4. 7	60. 9
Chili sauce	2. 8	. 4	23. 7
Chocolate, bitter or unsweetened	(5. 5)	52. 9	(18.)
Cider, sweet	. 1	. 0	12. 5
Clams:			
Fresh:			
Long, meat only	13. 6	1. 7	2. 1
Round, meat only	11. 1	. 9	5. 9
Canned, long and round	15. 8	2. 5	2. 1
Cocoa, plain, all	(9.)	18. 8	(31.)

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Coconut:			
Fresh:			
Meat and milk	2. 5	25. 0	11. 4
Meat (with brown skin)	3. 4	34. 7	14. 0
Milk only	. 3	. 4	5. 0
Dried, shredded	3. 6	39. 1	53. 2
Cod, raw	16. 5	. 4	0.
Collards, fresh	3. 9	. 6	7. 2
Corn, sweet, fresh, all	3. 7	1. 2	20. 5
Corn flakes	7. 9	. 7	80. 3
Corn flour	7. 9	2. 2	77. 0
Corn meal, whole ground, white or yellow	9. 1	3. 7	73. 9
Cowpeas:			
Fresh, shelled (young pods) as green vegetable (*see* Asparagus; Beans)	9. 4	. 6	22. 7
Dry	22. 9	1. 4	61. 6
Crab apples, fresh	. 4	. 3	17. 8
Crabs, Atlantic and Pacific hard shell, fresh or cooked	16. 1	1. 6	. 6
Crackers:			
Butter	9. 8	12. 4	70. 8
Saltines	9. 2	11. 8	71. 1
Soda, plain	9. 6	9. 6	72. 7
Cranberries, fresh	. 4	. 7	11. 3
Cream:			
Light, table, or coffee	2. 9	20.	4. 0
Heavy or whipping	2. 3	35.	3. 2
Cress, water, fresh	1. 7	. 3	3. 3
Cucumber, fresh	. 7	. 1	2. 7
Currants, red, white, and black, fresh	1. 6	0. 4	12. 7
Dandelion greens, fresh	2. 7	. 7	8. 8
Dates, fresh and dried	2. 2	. 6	75. 4
Deviled ham, canned	19.	43.	0.
Duck:			
Domesticated, fresh, flesh only	21. 4	8. 2	0.
Wild, fresh, flesh only	21. 3	5. 2	0.
Eggplant, fresh	1. 1	. 2	5. 5
Eggs:			
Fresh, stored, or frozen, hen	12. 8	11. 5	. 7
White only	10. 8	. 0	. 8
Yolk only	16. 3	31. 9	. 7
Endive, fresh	1. 6	. 2	4. 0
Farina	11. 5	1. 0	76. 1
Fats, cooking		100.	

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Figs:			
Fresh	1. 4	0. 4	19. 6
Dried	4. 0	1. 2	68. 4
Canned, water pack	. 5	. 1	13. 5
Finnan haddie or haddock, smoked	23. 2	. 4	0.
Flounders:			
Southern, raw	21. 3	. 2	0.
Summer and winter, raw	14. 9	. 5	0.
Flour, pancake, prepared, self-rising	10. 3	1. 5	72. 3
Frog's legs, fresh	16. 4	. 3	0.
Frozen custard	4.	9.	18.
Game animals, fresh, lean meat	20.	6.	0.
Garlic, fresh	4. 4	. 2	20. 0
Gelatin:			
Plain, dry	85. 6	. 1	0.
Dessert powders	9. 4	. 0	88. 7
Ginger, fresh	1. 8	1. 5	10. 8
Ginger ale	----------	----------	9.
Goose, domesticated, fresh, flesh only	22. 3	7. 1	0.
Gooseberries:			
Fresh	. 8	. 4	10. 1
Canned, water pack	. 5	. 2	6.
Grapefruit:			
Fresh	. 5	. 2	10. 1
Canned, water pack	. 5	. 2	8.
Grapefruit juice:			
Fresh:			
Florida grown	----------	----------	(8. 1)
California grown	. 4	. 1	9. 8
Canned, unsweetened	. 4	. 1	11. 1
Grapes:			
Fresh	1. 4	1. 4	14. 9
Canned, water pack	. 6	. 6	13.
Grape juice:			
Fresh, all	. 4	. 0	18. 5
Bottled, commercial, any type	. 4	. 0	18. 2
Guavas, fresh, common	1. 0	. 6	17. 1
Guinea hen, fresh	23. 1	6. 4	0.
Haddock:			
Raw	17. 2	. 3	0.
Smoked	23. 2	. 4	0.
Halibut:			
Raw	18. 6	5. 2	0.
California, raw	19. 8	1. 4	0.
Hazelnuts (including filberts)	12. 7	60. 9	17. 7

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Herring:			
Atlantic, raw	19.0	6.7	0.
Lake, or cisco, raw	18.5	6.8	0.
Pacific, raw	16.6	2.6	0.
Canned, plain	20.7	12.4	0.
Smoked	19.6	12.4	0.
Kippered	22.2	12.9	0.
Hickory nuts	13.9	67.4	13.2
Hominy:			
Dry	8.5	.8	78.9
Cooked or canned	1.8	.2	14.9
Honey	.3	0.	79.5
Horseradish:			
Fresh	3.2	.2	21.4
Prepared	1.4	.1	12.
Ice cream and frozen desserts:			
Plain	3.9	13.	20.3
Ices	.1	.1	27.
Ice cream:			
Frozen custard	4.	9.	18.
Sherbet	2.	3.	25.
Jerusalem artichokes, fresh	2.2	.1	17.0
Junket powder, chocolate flavor	3.	5.	89.
Kale, fresh	3.9	.6	7.2
Kohlrabi, fresh	2.1	.1	6.7
Kumquats, fresh	.9	.1	17.1
Lake trout, raw	17.8	10.3	0.
Lamb fresh:			
Carcass or side, medium	15.7	27.7	0.
Breast, medium	----------	----------	----------
Leg, medium	18.0	17.5	0.
Loin, medium	----------	----------	----------
Neck, medium	----------	----------	----------
Rib cut (9 ribs), medium	14.9	32.4	0.
Shoulder (3 ribs), medium	15.6	25.3	0.
Lard	----------	100.	----------
Leeks, fresh	2.5	.4	7.9
Lemons, fresh	.9	.6	8.7
Lemon juice, fresh	----------	----------	(8.3)
Lentils, dry:			
Whole	24.7	1.0	59.9
Split	24.0	1.2	60.4
Lettuce, fresh	1.2	.2	2.9
Lima bean flour	21.5	1.4	63.0

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Limes:			
Fresh	0. 8	0. 1	12. 3
Sweet, fresh	. 8	. 1	8. 9
Litchi fruits, fried	3. 6	. 5	70. 0
Liver, fresh:			
Beef	19. 7	3. 2	6. 0
Calf	19. 0	4. 9	4. 0
Chicken	22. 1	4. 0	2. 6
Goose	16. 5	10. 0	5. 4
Hog	19. 7	4. 8	1. 7
Sheep or lamb	21. 0	3. 9	2. 9
Turkey	22. 0	4. 8	. 7
Lobster:			
Fresh or boiled	16. 2	1. 9	. 5
Canned	18. 4	1. 3	. 4
Lobster or shrimp paste	20. 8	9. 4	1. 5
Logan blackberries or loganberries, fresh	1. 0	. 6	15. 0
Logan blackberries, canned, water pack	1. 0	. 6	10. 7
Logan blackberry juice, fresh or canned	. 6	. 0	10. 1
Macaroni:			
Dry, uncooked	13.	1. 4	73. 9
Cooked, plain	3. 7	. 4	19. 4
Mackerel:			
Common Atlantic, raw	18. 7	12.	0.
Pacific Coast, raw	22. 2	7. 6	0.
Canned	22. 6	7. 9	0.
Salted	18. 5	25. 1	0.
Smoked	23. 8	13. 0	0.
Mangos, fresh	. 7	. 2	17. 2
Margarine	. 6	81.	. 4
Mayonnaise	1. 5	78.	3. 0
Meat and poultry, cooked, medium done	27.	18.	0.
Milk:			
Cow, fresh:			
Whole	3. 5	3. 9	4. 9
Skim	3. 5	. 2	5. 0
Canned:			
Evaporated, unsweetened	7. 0	7. 9	9. 9
Condensed (sweetened)	8. 1	8. 4	54. 8
Dry:			
Skim	35. 6	1. 0	52. 0
Whole	25. 8	26. 7	38. 0
Malted, plain	14. 6	8. 5	70. 7
Molasses, cane, medium	----------	----------	(60.)
Mulberries, black, white and red, fresh	1. 2	. 6	14. 6
Mullet, common, raw	19. 3	4. 4	0.

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Mushrooms:			
Fresh	(0.)	0.3	(0.)
Canned	(0.)	.2	(0.)
Muskmelons:			
Fresh	.6	.2	5.9
Honeydew, casaba, Spanish	.6	.2	8.0
Others, including cantaloupe	.6	.2	4.6
Mussels:			
Fresh (Atlantic and Pacific)	14.4	2.3	4.5
Canned (Pacific)	18.2	3.3	1.5
Mustard greens, fresh	2.3	.3	4.0
Nectarines, fresh	.5	.1	16.0
Noodles, dry	14.3	5.0	70.6
Oatmeal or rolled oats, dry, uncooked	14.2	7.4	68.2
Oatmeal, cooked	2.3	1.2	11.0
Oils, salad	----------	100.	----------
Okra, fresh	1.8	.2	7.4
Oleomargarine	.6	81.	.4
Olives:			
Green, pickled	1.5	13.5	4.0
Ripe, pickled	1.6	19.0	3.0
Onions, fresh	1.4	.2	10.3
Oranges:			
Fresh	.9	.2	11.2
Canned	.8	.2	15.5
Juice:			
Fresh	----------	----------	(10.1)
Canned	.6	.1	12.9
Mandarin type and tangerines, fresh	.8	.3	10.9
Oysters:			
Fresh, solids only	9.8	2.0	5.9
Canned, drained solids	9.8	2.0	5.9
Pancreas, fresh, beef, medium	13.5	25.	0.
Papayas, fresh	.6	.1	10.0
Parsley, fresh, common	3.7	1.0	9.0
Parsnips, fresh	1.2	.4	14.2
Peaches:			
Fresh	.5	.1	12.0
Canned, water pack	0.5	0.1	6.8
Peanuts, raw:			
Spanish type	27.6	48.5	16.5
Virginia type	26.2	42.8	24.3
Peanut butter	26.1	47.8	21.0
Peanut flour	51.2	5.0	36.5

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Pears:			
Fresh	0.7	0.4	15.8
Canned, water pack	.3	.1	8.2
Peas:			
Fresh, shelled	6.7	.4	17.7
Canned	3.3	.2	10.1
Dry:			
Whole	23.8	1.4	60.2
Split	24.5	1.0	61.7
Pecans	9.4	73.0	13.0
Peppers or redpeppers, sweet and pungent varieties, fresh	1.4	.4	6.2
Perch:			
White, raw	19.3	4.0	0.
Yellow, raw	18.7	.8	0.
Persimmons:			
Fresh	.8	.4	20.0
Native	.7	.3	28.1
Pheasant, fresh	24.3	5.2	0.
Pickerel, common eastern, raw	18.7	.5	0.
Pickles, Cucumber:			
Sweet	.4	.1	20.7
Sour and dill	.5	.2	1.9
Pig's feet, pickled	16.7	14.8	(0.)
Pike, common, raw	18.7	.6	0.
Pimientos, canned	1.0	.5	6.2
Pineapple:			
Fresh	.4	.2	13.7
Canned, water pack	.3	.1	12.9
Juice:			
Fresh	----------	----------	(12.8)
Canned	.3	.1	13.0
Pistachio nut	19.6	53.2	18.6
Plums:			
Fresh	.7	.2	12.9
Canned, water pack	.4	.1	7.2
Pomegranate, fresh	.6	.2	17.7
Pork:			
Fresh, raw, medium	11.9	45.	0.
Cured:			
Raw, ham, smoked, medium	16.9	35.	(.3)
Shoulder smoked, medium	14.6	44.	(.3)
Potatoes, fresh	2.0	.1	19.1
Potato chips	6.7	37.1	49.1
Potato flour	8.5	.5	80.0
Pretzels	8.8	3.2	74.5

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Prunes:			
Fresh	0. 9	0. 2	21. 8
Canned. (*See* plums, canned.)			
Dried	2. 3	. 6	71. 0
Juice, canned	. 4	0.	19. 3
Pumpernickel	6. 7	1. 2	49. 7
Pumpkin:			
Fresh, mature	1. 2	. 2	7. 3
Canned	1. 0	. 3	7. 9
Quinces, fresh	. 3	. 1	13. 9
Rabbit, domesticated, fresh, flesh only (rabbit purchased without giblets)	20. 8	10. 2	0.
Radishes, fresh	1. 2	. 1	4. 2
Raisins	2. 3	. 5	71. 2
Raspberries:			
Fresh:			
Black	1. 5	1. 6	15. 6
Red	1. 1	. 6	14. 4
Canned, water pack	. 9	. 9	10. 0
Juice, fresh:			
Black	. 2	. 0	10. 7
Red	. 4	. 0	8. 3
Red snapper, raw	19. 8	. 9	0.
Rhubarb:			
Fresh	. 5	. 1	3. 8
Canned, water pack	. 4	. 4	3. 0
Rice:			
White:			
Uncooked	7. 6	. 3	79. 4
Boiled	2. 2	. 1	23. 2
Puffed	6. 7	. 3	83. 3
Flakes	7. 7	. 5	82. 0
Rice flour	7. 4	. 5	79. 5
Rock cod, Pacific, raw	18. 3	1. 0	0.
Rutabagas, fresh	1. 1	. 1	8. 9
Rye flour, medium	11. 0	1. 2	75. 8
Salmon:			
Atlantic, raw	22. 5	13. 4	0.
Pacific, raw	17. 4	16. 5	0.
Canned, all kinds	20. 6	9. 6	0.
Sardines, canned, in oil	25. 7	11. 0	1. 2
Sauerkraut:			
Bulk	1. 3	. 2	4. 9
Canned	1. 1	. 2	3. 4
Scallops, fresh	14. 8	. 1	3. 4
Shad or American shad, raw	18. 7	9. 8	0.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Sherbet	2.	3.	25.
Shrimp, canned	17. 8	. 8	. 8
Sirups:			
Cane	----------	----------	(67.)
Corn	----------	----------	(74.)
Maple	----------	----------	(64.)
Smelt:			
Atlantic, raw	17. 6	1. 8	0.
Pacific Bay, raw	19. 8	. 7	0.
Sole, California, raw	17. 4	. 7	0.
Soy bean flour	37. 3	20. 2	(12.)
Soy bean meal, ground whole beans	35. 7	18. 0	(12.)
Soy sauce	(2.)	1.	(9.)
Spinach:			
Fresh	2. 3	. 3	3. 2
Canned	2. 3	. 5	3. 5
Squab, fresh, flesh	20. 4	4. 2	0.
Squash, fresh:			
Summer	. 6	. 1	3. 9
Winter	1. 5	. 3	8. 8
Squash, canned	1. 0	. 3	7. 9
Strawberries:			
Fresh	. 8	. 6	8. 1
Canned, water pack	. 6	. 4	5. 8
Sugar:			
Granulated	----------	----------	99. 5
Powdered	----------	----------	99. 5
Brown	----------	----------	(95. 5)
Sweetbreads, fresh beef, medium	11. 8	33.	0.
Sweet potatoes:			
Fresh	1. 8	. 7	27. 9
Canned	1. 5	. 2	30. 7
Tangerines. (*See* Oranges, mandarin type.)			
Tapioca, dry	. 6	. 2	86. 4
Tomatoes:			
Fresh:			
Red	1. 0	. 3	4. 0
Green or unripe	1. 2	. 2	3. 3
Canned	1. 0	. 2	3. 9
Tomato juice, fresh	1. 0	. 2	4. 3
Tomato catchup	2. 0	. 4	24. 5
Tongue, fresh beef, medium	16. 4	15.	. 4
Trout, eastern brook, raw	19. 2	2. 1	0.
Tuna, canned	24. 2	10. 8	0.
Turkey, fresh, flesh only	24. 0	6. 7	0.
Turnips, fresh	1. 1	. 2	7. 1

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE I.—*Proximate composition of American food materials*—Continued

Food	Protein (percent)	Fat (percent)	Carbohydrate (percent)
Turnip tops (also rutabaga tops), fresh	2. 9	0. 4	5. 4
Veal, fresh, carcass or sides, excluding kidney and kidney fat, medium	19. 1	12.	0.
Walnuts, Persian or English	15. 0	64. 4	15. 6
Watermelons, fresh	. 5	. 2	6. 9
Wheat flour:			
Graham, all types	13.	2.	72. 4
Straight, all types	11. 2	1. 1	75. 2
Wheat breakfast food:			
Bran flakes	13. 0	1. 9	74. 9
Farina	11. 5	1. 0	76. 1
Puffed wheat	13. 4	1. 7	75. 6
Shredded wheat	10. 4	1. 4	78. 7
Wheat flakes	10. 4	1. 3	79. 9
Whey	1. 0	. 3	5. 1
Whitefish, Great Lakes, raw	22. 9	6. 5	0.
Wild rice, parched or sun-dried	13. 8	. 8	75. 5
Yams, winged, fresh	2. 1	. 2	24. 1
Yeast:			
Compressed	13. 3	. 4	13. 0
Dried (brewers' and bakers')	46. 1	1. 6	37. 4
Zwieback	10. 9	8. 6	74. 3

TABLE II.—*Food measures*

Food	Common measure	Household equivalent
Bread	1 loaf (16 ounces)	5 cups soft crumbs.
Butter	1 pound	2 cups.
Cheese:		
American	½ pound	2½ cups, grated.
Cream	3 ounces	6⅔ tablespoons.
Chocolate:		
Cake	1 ounce	1 square.
Ground	1 ounce	4 tablespoonfuls.
Corn meal	1 pound	3 cups.
Eggs	1 medium size	2 ounces.
Whites	7 to 10	1 cup.
Yolks	11 to 14	1 cup.
Flour:		
Cake, sifted	1 pound	4½ cups.
Bread	1 pound	4 cups.
Graham	1 pound	3½ cups.
Rye	1 pound	5 cups.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

TABLE II.—*Food measures*—Continued

Food	Common measure	Household equivalent
Lemon:		
Juice	1 medium size	3 tablespoonfuls.
Rind, grated	1 medium size	3 teaspoonfuls.
Orange:		
Juice	1 medium size	½ cup.
Rind, grated	1 medium size	2 tablespoonfuls.
Rice	1 pound	2 cups.
	½ cup, raw	2 cups, cooked.
Suet	2½ ounces	1 cup, chopped.
Sugar:		
Brown	1 pound	2 cups, firmly packed.
Confectioners	1 pound	3½ cups.
Granulated	1 pound	2¼ cups.
Salt	1 ounce	2 tablespoonfuls.
Pepper	1 ounce	3 tablespoonfuls.
Cornstarch	1 ounce	3 tablespoonfuls.
Cinnamon	1 ounce	4 tablespoonfuls.
Cloves	1 ounce	4 tablespoonfuls.
Mace	1 ounce	4 tablespoonfuls.
Curry powder	1 ounce	4 tablespoonfuls.
Mustard	1 ounce	4 tablespoonfuls.
Thyme	1 ounce	4 tablespoonfuls.
Marshmallows	¼ pound	16 marshmallows.
Almonds (in shell)	1 pound	2 cups, chopped.
Peanuts (in shell)	1 pound	2 cups, chopped.
Pecans (in shell)	1 pound	2 cups, chopped.
Walnuts (in shell)	4 ounces	1 cup, chopped.

TABLE III.—*Weight and capacity measures and their equivalents*

Measure	Equivalent	Measure	Equivalent
4 ounces	¼ pound.	1 gram carbohydrate.	4 calories.
16 ounces	1 pound.		
60 drops	1 teaspoonful.	1 gram protein	4 calories.
3 teaspoonfuls	1 tablespoonful.	1 gram fat	9 calories.
4 tablespoonfuls	¼ cup.	1 tablespoonful	4 drams, 15 cubic centimeters.
8 tablespoonfuls	½ cup.		
16 tablespoonfuls	1 cup.	1 teaspoonful	1 dram, 4 cubic centimeters.
1 gill	½ cup.		
2 cups	1 pint.	30 cubic centimeters	1 ounce.
4 cups	1 quart.	30 grams	1 ounce.
4 quarts	1 gallon.	1 kilogram	2.2 pounds.
8 quarts	1 peck.		

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE IV.—*Oven temperature*

Oven	°F.
Slow	250–350
Moderate	350–400
Hot	400–450
Very hot	450–500

TABLE V.—*Can size and equivalent cup measure*

Can number	Cups
1	1⅓
2	2⅔
2½	3⅝
3	4
10	13¼

TABLE VI.—*Average weights of boys and girls (without clothing)*

Boys			Girls		
Age (years)	Height	Weight	Age (years)	Height	Weight
	Inches	*Pounds*		*Inches*	*Pounds*
Birth	20. 5	7. 5	Birth	20. 5	7
1	29. 5	21. 5	1	29	20
2	33. 5	26. 5	2	33	25
3	36. 5	31	3	36	29. 5
4	39	34. 5	4	39	33
5	42. 5	37. 5	5	41. 5	37
6	45	47	6	45	42
7	47	50	7	47	48. 5
8	50	56. 5	8	50	56
9	52	62	9	52	61. 5
10	54	69	10	54	68
11	56	76. 5	11	56	75
12	58	86	12	58	81. 5
13	60	98	13	60	90
14	63	112	14	62	106

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE VII.—*Normal weights for women (without clothing)*

Age, years	4 ft. 8 in.	4 ft. 10 in.	5 ft.	5 ft. 2 in.	5 ft. 4 in.	5 ft. 6 in.	5 ft. 8 in.	5 ft. 10 in.	6 ft.
15	96	100	102	107	112	121	129	137	147
16	97	101	104	109	115	123	131	138	148
17	98	102	106	111	117	124	132	139	149
18	99	103	107	112	118	125	133	140	150
19	100	104	108	113	119	126	134	141	150
20	101	105	109	114	120	127	135	142	151
21–22	102	106	110	115	121	128	136	143	152
23	103	107	111	116	122	129	137	145	152
24–25	104	108	112	116	123	130	138	146	153
26–27	105	109	113	117	124	131	139	147	154
28–29	106	110	114	118	125	132	140	148	155
30	107	111	115	119	126	133	141	149	156
31–32	108	112	116	120	127	135	143	150	157
33	109	113	117	121	128	136	144	151	157
34–35	110	114	118	122	129	137	145	152	158
36–37	111	115	119	123	131	138	146	153	159
38	112	116	120	125	132	140	148	155	161
39	113	117	121	126	133	141	149	156	162
40	114	118	122	127	133	141	149	156	162
41–42	115	119	123	128	134	142	150	157	163
43	116	120	124	129	135	143	151	158	165
44–45	117	121	125	130	136	144	152	159	166
46–47	118	122	126	131	137	145	153	160	168
48–49	119	123	127	132	138	147	155	162	170
Over 50	120	124	128	133	139	148	157	162	172

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

APPENDIX I

TABLE VIII.—*Normal weights for men (without clothing)*

Age, years	5 ft.	5 ft. 2 in.	5 ft. 4 in.	5 ft. 6 in.	5 ft. 8 in.	5 ft. 10 in.	6 ft.	6 ft. 2 in.
15	101	106	112	120	128	136	146	156
16	103	108	114	122	130	138	148	158
17	105	110	116	124	132	140	150	160
18	107	112	118	126	134	142	152	162
19	109	114	120	128	136	144	154	164
20	111	116	122	130	138	146	155	165
21	112	117	124	132	139	147	156	166
22	113	118	125	133	140	148	157	167
23	114	119	126	134	141	149	158	169
24	115	120	127	135	142	150	159	171
25	116	120	127	135	143	151	161	173
26	117	121	128	136	144	152	162	174
27	118	122	128	136	144	152	163	175
28	119	123	129	137	145	153	163	176
29–30	120	124	130	138	146	154	166	178
31–33	121	125	131	139	148	156	168	180
34–35	122	126	132	140	149	158	170	182
36–37	123	127	133	141	150	160	172	184
38–39	124	128	134	142	151	161	173	186
40–41	125	129	135	143	152	162	174	187
42–43	126	130	136	144	153	163	175	188
44–45	127	131	137	145	154	164	176	189
46–50	128	132	138	146	155	165	177	191
Over 50	129	133	139	147	157	167	178	192

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

APPENDIX II

LIVER RECIPES

1. General.—In pernicious anemia, liver is an important part of the therapy. It frequently is a real problem to get patients to eat as much liver as they should. It is important that the dietitian have available numerous recipes for the preparation of liver dishes. An excellent group of recipes for serving liver are those from the Thomas Henry Simpson Memorial Institute for Medical Research. They are given below and should be adequate for the preparation of liver for all purposes.

2. Ways of serving liver.—See paragraph 3 for recipes.

HOT DISHES

	Recipe No.		Recipe No.
A la king	1	Italian spaghetti	18
Baked	2	Loaf	19
Boiled with onion sauce	3	Omelet	20
Boiled with Mexican sauce	4	Pie	21
Broiled	5	Scrapple	22
Chili con carne	6	Shepherd's pie	23
Creamed on toast	7	Soup, creamed	24
Creamed with onions	8	Soup, with vegetables	25
Creamed with cauliflower	9	Stew, with biscuits	26
Chop suey	10	Stuffed	27
Chow mein	11	Stuffed pepper	28
Croquettes	12	Stuffed potato	29
En casserole	13	Stuffed tomatoes	30
Fried with bacon	14	Tomato bisque	31
Fried with onions	15	Turn-over	32
Hash	16	With noodles	33
Indian curry	17	With corn creole	34

COLD DISHES

	Recipe No.		Recipe No.
Cocktail	35	Stuffed tomato salad	40
Cold sliced with relish	36	Stuffed pepper salad	41
Jellied	37	Sandwiches	42
Jellied in aspic	38	Toasted sandwiches	43
Salad	39	Club sandwiches	44

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

SALAD DRESSINGS

	Recipe No.		Recipe No.
Horseradish	45	Russian	47
Mayonnaise	46	Thousand island	48

BEVERAGES

	Recipe No.		Recipe No.
Cherry lemonade	49	Orange juice	52
Coffee shake	50	Tomato bouillon	53
Iced chocolate	51		

MISCELLANEOUS

	Recipe No.		Recipe No.
Catsup	54	Ice cream	56
Dresden chocolate chips	55	Tomato relish	57

3. Recipes.

HOT DISHES

1. Liver a la king

⅔ cup ground liver, cooked.
¼ cup celery (cooked) chopped.
¼ cup mushrooms.
2 tablespoonfuls onion, chopped.
2 tablespoonfuls green pepper, chopped.
2 tablespoonfuls pimiento, chopped.
2 tablespoonfuls butter.
⅓ cup broth or water.
⅓ cup milk.
½–1 tablespoonful flour.
¼ teaspoonful salt.
⅛ teaspoonful pepper.

Simmer mushrooms, green pepper, and onions in butter until peppers are slightly transparent. Add flour diluted with milk, then the broth, and stir until thickened. Add the remaining ingredients and keep hot in a double boiler until ready to serve on toast. If not all taken, this may be reheated the following day.

2. Baked liver

¼ pound sliced liver.
1 can stewed or canned tomatoes.
Onion (small).
Flour.
½ teaspoonful salt.
⅛ teaspoonful pepper.

Dredge liver with flour and sprinkle with salt and pepper. Place in buttered baking dish. Cover with sliced onions, sprinkle with salt and pepper, and pour tomatoes over it. If pan is very shallow, more tomatoes may be needed. Bake in a moderate oven until liver is tender.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

3. Boiled liver with onion sauce

½ pound liver, unsliced. 1 bay leaf. Celery leaves.

Cook slowly in salted water with celery leaves and bay leaf until tender. Remove skin, slice, and serve with onion sauce:

¼ cup chopped onions.
1 tablespoonful butter.
1 tablespoonful flour.
¼ teaspoonful salt.
Speck pepper.
Milk.

Boil onions until tender, drain, and to liquor add enough milk to make up to ½ cup. Blend butter and flour together, add milk, and simmer until smooth and thick. Add onions, salt, and pepper.

4. Boiled liver with Mexican sauce

Reheat sliced cold boiled or broiled liver in Mexican sauce:

½ onion, finely chopped.
1 tablespoon butter.
½ red pepper or pimiento.
½ green pepper.
¼ clove garlic (if desired).
½ cup tomatoes.
1 teaspoon worcestershire sauce.
Salt and pepper.

Simmer the onion in the butter. Add the remaining ingredients. Cook 5 minutes, then add slices of liver.

5. Broiled liver

Parboil ½ pound liver for 10 minutes. Remove skin and slice. Place on a greased broiling rack and cook slowly for 5 to 10 minutes. Turn frequently. Dot with butter, salt, and pepper, and garnish with parsley or lemon.

6. Chili con carne

½ cup liver, uncooked, chopped.
½ red pepper or pimiento, chopped.
Salt and pepper.
1 tablespoon onion.
½ teaspoon chili powder.

Cook all together until liver is tender and there is very little liquor. Add ½ cup red kidney beans. Cook together 10 minutes.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

7. Creamed liver on toast

½ cup diced liver.
1 tablespoon flour.
2 tablespoons butter.
¾ cup milk.
¼ teaspoon salt and speck pepper.
1 teaspoon worcestershire sauce.

Fry liver in butter until tender. Add flour and stir until blended. Add milk. Add worcestershire, salt, and pepper and serve on toast or crackers.

8. Creamed liver with onions

½ cup diced liver.
2 small onions.
3 tablespoons bacon drippings.
1½ tablespoons flour.
¾ cup milk.
¼ teaspoon salt and speck pepper.

Brown onions and liver together in bacon drippings. Add flour. When blended add the milk slowly; simmer until liver is tender.

9. Creamed cauliflower with liver

½ cup diced uncooked liver.
1 tablespoon butter.
½ cup cauliflower, cooked.
1 tablespoon flour.
½ cup milk.

Sear liver in butter. Cover with water and simmer slowly until very tender. Shake over flame last few minutes that there may be no water left. Serve on a warm plate, pouring white sauce over liver, and cauliflower on the white sauce.

10. Liver chop suey

⅔ cup cooked liver, ground.
¼ cup cooked celery, chopped.
2 tablespoons onion.
2 tablespoons green pepper.
½ cup broth or bouillon.
⅓ cup tomato juice.
1½ tablespoons flour.
2 tablespoons butter.
¼ teaspoon salt.
⅛ teaspoon pepper.

Simmer onion and green pepper in butter until pepper is clear. Add liver and cooked celery, broth, and flour diluted with tomato juice. Stir until smooth and thick. Serve with boiled rice.

11. Liver chow mein

Use liver a la king recipe and serve with fried noodles.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

12. Liver croquettes

¾ cup cooked liver, chopped.
¼ teaspoon salt.
⅛ teaspoon celery salt, speck cayenne pepper.
1 teaspoon lemon juice.
1 tablespoon onion, chopped.
1 teaspoon parsley.
½ cup thick white sauce.

Mix ingredients in order given. Cool, shape, roll in crumbs, then beaten eggs and again in crumbs. Fry in deep fat or bake in a hot oven.

13. Liver en casserole

¼ pound sliced liver.
Flour.
¼ teaspoon salt.
⅛ teaspoon pepper.
2 medium potatoes, quartered.
Water.
1 carrot, sliced.
1 onion, sliced.
1 small turnip, sliced.
½ cup peas.
2 tablespoons butter.

Dredge liver in flour, salt, and pepper. Sear on both sides. Place half of the liver in the bottom of a buttered casserole, cover with vegetables. Place remaining liver on the top and add water to come half way up the vegetable layer. Bake with the cover on for 1½ hours.

14. Fried liver with bacon

¼ pound liver.
2 slices bacon.
Salt and pepper.
Flour.

Fry bacon and remove to hot plate. Dredge liver in flour, salt, and pepper. Cook liver slowly in bacon drippings until it can be pierced easily with a fork.

15. Fried liver with onions

¼ pound sliced liver.
1 large onion.
Flour.
Salt and pepper.

Dredge liver with flour, salt, and pepper. Sear in bacon drippings and surround with sliced onions, turning them frequently until brown.

16. Liver hash

¾ cup cooked liver, chopped.
¾ cup cooked potato, chopped.
½ small onion, chopped.
¼ teaspoon salt.
⅛ teaspoon pepper.
⅓ cup milk.

Mix and brown each side slowly in a hot buttered frying pan. Turn and serve with catsup or horseradish.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

17. Indian curry of liver

½ cup diced liver.
2 tablespoons butter.
2 slices onion.
½ teaspoon curry powder.
1½ tablespoons flour.

Sear liver in butter, add onions, and cook until brown. Add curry powder, cover with boiling water, and cook until meat is tender. Thicken with flour diluted with cold water to pour easily. Serve with steamed or boiled rice.

18. Italian spaghetti with liver

½ cup cooked spaghetti or macaroni.
⅔ cup cooked ground liver.
3 tablespoons chopped onion.
1 tablespoon chopped green pepper.
1 teaspoon chili powder (if desired).
⅔ cup stewed tomato.
¼ teaspoon salt.
⅛ teaspoon pepper.

Mix tomato, onion, and green pepper. Put layers of spaghetti, liver, and tomato in buttered baking dish and bake ½ hour.

19. Liver loaf

⅔ cup liver, cooked, ground.
½ cup tomato juice.
1 tablespoon onion, finely chopped.
¼ teaspoon salt.
⅛ teaspoon pepper.
½ egg, slightly beaten.

Mix and bake 20 minutes in moderate oven. Serve with tomato sauce.

20. Baked omelet with liver

2 tablespoons butter.
2 tablespoons flour.
½ cup tomato juice.
¼ teaspoon salt.
Speck pepper.
¼ cup chopped celery.
2 tablespoons chopped onion.
1 tablespoon chopped green pepper.
⅔ cup chopped cooked liver.
1 egg.

Melt butter and add flour. Add tomato juice, stir until smooth and thick. Add the onion, celery, and pepper. Chill. When cold, add yolk, fold in a stiffly beaten white, last, the liver. Place in buttered baking dish uncovered, and bake slowly in a pan of hot water for ¾ hour.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

21. Liver pie

½ cup diced liver.
1 small onion.
1 bay leaf.
¼ tablespoon salt.
⅛ teaspoon pepper.
1½ tablespoons flour.

Simmer liver with seasonings until tender. Drain off stock and boil down to 1 cup. Thicken with flour diluted with enough cold water to pour easily. Put liver in buttered baking dish, cover with gravy and cool. Cut gashes in pie crust and cover dish with it. Bake in a moderate oven until crust is browned.

22. Scrapple

½ cup cooked corn meal.
⅔ cup cooked liver, ground.

Mix hot corn meal and liver. Pack in a moist bowl or small pan. When cold cut in slices ½ inch thick and brown in hot fat. Serve with syrup.

23. Shepherd's pie

Make the same liver pie (recipe No. 21), using hot mashed potato to cover the top instead of pie crust. It is not necessary to cool the liver mixture for shepherd's pie. Bake until the potato begins to brown.

24. Cream of liver soup

¼ cup liver (uncooked), finely chopped.
¼ cup celery, chopped.
Speck pepper.
1 tablespoon onion.
¼ teaspoon salt.
Speck paprika.

Cook liver, onion, and celery in salted water until tender. Melt butter, add flour, and boil. Add stock drained from liver and vegetables with added milk to make a cupful. Add liver and vegetables. Season and serve with crisp crackers.

25. Liver soup with vegetables

¼ cup cooked liver, chopped.
1 cup tomato juice.
1 tablespoonful chopped onion.
¼ cup celery.
1 teaspoonful parsley.
Salt and pepper.

Cook liver, onion, and celery in salted water until tender. During the last few minutes of cooking shake so that there will be no water left. Add tomato juice, parsley, simmer 3 to 5 minutes. Season and serve with crisp crackers.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

26. Liver stew with biscuits

See recipe for liver pie (No. 21) using a thin baking powder biscuit mixture to drop on top. It is not necessary to cool the liver and gravy as for liver pie.

27. Stuffed liver

½ pound sliced liver.
½ cup cracker crumbs.
Salt, pepper, cayenne.
1 teaspoonful lemon juice.
1 teaspoonful chopped onion.

Moisten dressing with hot water. Spread on liver to within ½ inch of the edges. Roll each slice, fastening with toothpicks. Fold in flour, sprinkle with salt and pepper, and sear. Put ½ inch water and tomato juice or milk in pan and simmer closely covered until liver is tender.

28. Stuffed pepper

⅔ cup cooked liver, ground.
¼ cup tomato juice.
1 tablespoonful chopped onion.
¼ teaspoonful salt.
⅛ teaspoonful pepper.
Buttered bread crumbs.

Cut a large pepper in half lengthwise, or slice from stem end of 2 small ones. Remove seeds and parboil in salt water 5 minutes. Stuff, cover with buttered crumbs, and bake in a moderate oven until crumbs are brown. About ¼ inch water in the bottom of the pan will keep them from becoming too dry.

29. Stuffed potato

Cut a large freshly baked potato in half lengthwise. Scoop out, mash, and fill one half with liver stuffing (see stuffed peppers (28)). Fill the other half with the mashed potato. Top with buttered bread crumbs and return to the oven for a few minutes to heat liver and brown.

30. Stuffed tomatoes

Scoop out tomatoes, leaving a ½ inch shell. Fill with liver stuffing (see stuffed peppers, recipe No. 28), cover with buttered crumbs, and bake in a moderate oven until crumbs are brown.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

31. Tomato bisque with liver

⅓ cup cooked liver, finely ground.
⅔ cup strained tomato.
1 tablespoonful catsup.
¼ teaspoonful salt.
⅛ teaspoonful pepper.

Heat tomato with seasonings. Add liver, simmer 5 minutes. Serve with crisp crackers.

32. Liver turn-over

Liver stuffing (see stuffed peppers (recipe No. 28)).
Pastry.

Roll pie crust into a circular piece about 7 inches in diameter and ⅛ inch thick. Place stuffing on one half, fold over the other half. Moisten edges and press firmly together. Cut gashes in top and bake in a moderate oven until pastry is brown, about 45 minutes.

33. Liver with noodles

½ cup cooked noodles.
⅔ cup cooked liver, ground.
¼ cup cooked celery, chopped.
¼ cup mushrooms, quartered.
2 tablespoonfuls chopped green peppers.
2 tablespoonfuls pimiento.
1 tablespoonful butter.
¼ teaspoonful salt.
⅛ teaspoonful pepper.

Simmer onion, green pepper, and mushrooms in butter until pepper is slightly transparent. Add celery, pimiento, liver, noodles, salt, and pepper.

34. Creole corn with liver

⅔ cup corn, canned.
⅔ cup cooked liver, ground.
1 tablespoonful red peppers, chopped.
⅓ cup milk.
¼ teaspoonful salt.
⅛ teaspoonful pepper.

Mix, top with buttered crumbs, and bake slowly until crumbs are brown.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

COLD DISHES

35. Liver cocktail

Cocktail sauce:

½ cup tomato catsup.
¼ cup lemon juice.
2 tablespoonfuls worcestershire sauce.
¼ teaspoonful chives or onion.
2 teaspoonfuls horseradish.
Salt and pepper.

Mix with ground raw liver or liver pulp (see "Beverages" below—¼ pound liver yields ⅓ cup pulp) in the proportion of 1 part liver to 2 parts of sauce. Serve with crisp crackers.

(This recipe was published in J. A. M. A., September 17, 1927, by Dr. Wm. T. Wilkins.)

36. Cold sliced with relish

Boiled liver (recipe No. 2) may be served cold with any tart relish such as chili sauce, horseradish, beet relish, catsup, or cocktail sauce as above.

37. Jellied liver

⅔ cup ground cooked liver.
¼ cup shredded cabbage.
2 tablespoons chopped pickle.
2 tablespoons chopped pimiento.
2 tablespoons vinegar.
¼ teaspoon salt.
⅛ teaspoon pepper.
1 teaspoon horseradish.
½ tablespoon granulated gelatin.
2 tablespoons cold water.
⅔ cup liver broth stock or water.

Soak gelatin in cold water. Dissolve in boiling stock, broth, or water. Add vinegar and chill. When partly thickened stir in remaining ingredients. Chill. Serve as salad or cold meat.

38. Liver jellied in aspic

⅔ cup cooked liver, ground.
1 cup stewed tomatoes.
2 slices onion.
1 bay leaf.
¼ teaspoon salt.
⅛ teaspoon pepper.
1¼ teaspoons granulated gelatin.
1 tablespoon cold water.

Cook onion, bay leaf, salt, pepper, and tomatoes together. Strain. Make up ⅔ cup. Add gelatin which has been soaked in cold water and stir until dissolved. Add liver. Chill. Serve as a salad or as a cold meat.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

39. Liver salad

⅔ cup cooked liver, coarsely ground.
1 tablespoon chopped onion.
1 tablespoon chopped green pepper.
¼ cup chopped celery or cucumber.
Salt and pepper.

Mix with mayonnaise or French dressing and serve on lettuce with a slice of lemon.

40. Stuffed tomato salad

Use liver salad mixture to stuff a large tomato which has been prepared as in recipe No. 30.

41. Stuffed pepper salad

Prepare ½ cup diced uncooked liver as for sandwich filling. Remove stem end and seeds from a green pepper. Pack tightly with the liver mixture. Chill. Cut pepper in ½-inch slices crosswise and serve on lettuce.

42. Liver sandwiches

½ cup diced liver (uncooked).

Brown in hot fat, add boiling water, and simmer until very soft. Continue cooking until all the liquid has been absorbed. Mash, season, moisten with catsup or a little hot water. Spread on graham or white bread. Chopped pickles may be added if desired.

43. Toasted sandwiches

Make sandwiches same as above. Toast on both sides, stick with two toothpicks to keep bread from curling. Serve at once.

44. Club sandwiches

Use sandwich filling as above or slice of cold boiled liver. Butter bread lightly, spread filling between. Butter top of sandwich, place on this a thin slice of boiled ham, a thin slice of dill pickle, and another slice of buttered bread.

SALAD DRESSINGS

45. Horseradish dressing with liver

2 tablespoons cooked liver, finely ground.
1 tablespoon salad oil.
1 teaspoon vinegar or lemon juice.
1 teaspoon horseradish.
Salt, pepper, and paprika.

Stir briskly with a fork and serve with shredded lettuce or cabbage.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

46. Liver mayonnaise

2 tablespoons cooked liver, finely ground.
1 tablespoon mayonnaise dressing.

Mix and serve with tomato, cucumber, cabbage, or lettuce salad.

47. Russian dressing with liver

2 tablespoons cooked liver, finely ground.
2 teaspoons chopped pickle.
1 teaspoon chopped pimiento.
1 teaspoon chopped onion.
2 tablespoons salad oil.
1 tablespoon vinegar or lemon juice.

Stir briskly with a fork and serve with head lettuce, shredded lettuce, or cabbage.

48. Thousand island dressing with liver

2 tablespoons cooked liver, finely ground.
1 tablespoon mayonnaise dressing.
2 teaspoons chopped pickle.
1 teaspoon chopped pimiento.

Mix and serve with shredded or head lettuce.

BEVERAGES

Liver pulp for use in beverages may be prepared as follows:

Trim uncooked liver free from skin and connective tissue. Put through the food chopper, using the finest knife. Press the ground liver through a potato ricer. 125 grams liver prepared in this way yields 9 grams liver pulp, which measures ⅓ cup or 4 level tablespoonfuls.

49. Cherry lemonade

⅓ cup liver pulp.
Juice of ½ lemon.
½ cup cherry juice.
2 teaspoons sugar.

Add sugar to lemon and cherry juice. Add liver and serve with crackers or thin cookies.

50. Coffee shake with liver

⅓ cup liver pulp.

Fill glass with fairly strong iced coffee. Stir briskly. Serve with crisp crackers, or thin slices of dry toast.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

51. Iced chocolate with liver

⅛ cup liver pulp.
1 tablespoon cocoa.
1 tablespoon sugar.
⅛ cup water.
Milk.

Mix sugar and cocoa together. Add cold water and boil, stirring constantly, for 2 minutes. Pour in glass and chill. When cold add liver and fill the glass with milk. Serve with crisp crackers.

52. Liver with orange juice

⅛ cup liver pulp.
⅔ cup orange juice.

Stir together and serve with crackers.

53. Tomato bouillon

¼ cup liver pulp.
¾ cup tomato juice.
1 tablespoon tomato catsup.
Salt and pepper to taste.

Mix liver pulp with tomato juice. Bring to a boil (but do not boil). Add tomato catsup and season with salt and pepper. Serve hot.

MISCELLANEOUS

54. Catsup

2 tablespoons catsup.
2 tablespoons liver pulp.

Mix and serve as a relish with meat or baked beans.

55. Dresden chocolate chips

⅛ cup cooked liver, ground.
2 tablespoons sugar.
2 tablespoons grated chocolate (unsweetened).

Spread ¼ inch layer of liver in bottom of pan. Sprinkle with chocolate mixed with sugar. Bake in a slow oven until sugar and chocolate are melted and crumbs of liver are crisp on top. Remove from fire and serve with whipped cream.

56. Liver ice cream

1 cup coffee cream.
2 tablespoons cocoa.
3 tablespoons sugar.
⅔ cup liver cooked and ground very finely.
½ teaspoon vanilla.

Mix sugar and cocoa. Add cream and cook in double boiler 10 minutes. Cool. Add liver, vanilla, and freeze.

57. Tomato relish

1 tablespoon chopped pickle.
1 tablespoon catsup.
2 tablespoons liver pulp.

Mix and serve as a relish.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Appendix III

RECIPES FOR DIABETICS

1. Gelatin dessert

12 grams gelatin.
500 cc water.

Soak gelatin in 200 cc water. Heat the remainder of the water and add to the softened gelatin. While hot add saccharine and flavor to taste.

Value, each 100 grams:

Protein, 2 grams.
Fats, 0 gram.
Carbohydrates, 0 gram.

2. Oatmeal muffins

52 grams rolled oats, dry.
½ teaspoon salt.
½ teaspoon baking powder.
48 grams butter.
4 eggs.
¼ cup water.

Mix all dry ingredients. Add water. Melt butter and add. Beat egg yolks and add. Beat egg white stiffly and fold in. Divide equally into 12 baking containers and bake.

Value, each muffin:

Protein, 3 grams.
Fats, 6 grams.
Carbohydrates, 3 grams.

3. Bran muffins (unwashed)

150 grams bran, unwashed.
50 grams butter.
2 eggs.
20 grams brown sugar.
2 teaspoonfuls baking powder.
¼ teaspoonful baking soda.
½ teaspoonful salt.
q. s. water.

Mix all dry ingredients well. Then melt butter and add with sufficient warm water for proper consistency. Beat egg yolks and add. Beat egg whites stiff and fold in. Bake in hot oven about 20 minutes. Makes 12 muffins.

Value, each muffin:

Protein, 3 grams.
Fats, 5 grams.
Carbohydrates, 0 gram.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

4. Bran muffins (washed)

100 grams bran, washed.
2 eggs.
1 tablespoonful mineral oil.
½ teaspoonful salt.
2 teaspoonfuls baking powder.
q. s. water.

Mix all dry ingredients and add water to the proper consistency. Add mineral oil to beaten egg yolks and mix well. Beat egg whites stiff and fold in. Makes 12 muffins.

Approximate value, each muffin:

Protein, 2 grams.
Carbohydrates, 0 gram.
Fats, 2 grams.

5. Cream soup (one serving)

100 grams cream, 20 percent.
50 grams vegetable, mashed, 5 percent.
240 grams water, q. s.

Approximate value, each 240 cc:

Protein, 4 grams.
Carbohydrates, 6 grams.
Fats, 20 grams.

6. Vegetable soup (one serving)

15 grams raw carrots, diced, 10-percent.
30 grams tomato, raw, 5-percent.
10 grams shredded cabbage, 5-percent.
10 grams onion, raw, 10-percent.
10 grams celery, raw, 5-percent.
480 cc clear broth.
Salt and pepper to taste.

Add 480 cc clear broth to prepared raw vegetables and cook until vegetables are done.

Approximate value:

Protein, 1 gram.
Carbohydrates, 5 grams.
Fats, 0 gram.

7. Prune whip (twelve servings)

12 egg whites.
300 grams prune purée.
10 cc lemon juice.
6 tablets saccharine.

Beat egg whites stiff. Dissolve saccharine tablets in lemon juice and add to prune purée. Fold in egg whites and bake.

Value, each serving:

Protein, 4 grams.
Carbohydrates, 5 grams.
Fats, 0 gram.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

8. Strawberry ice cream (12 servings)

400 grams strawberries, fresh (purée).
200 cc milk, whole.
200 cc cream, 20-percent.
¼ teaspoonful salt.
4 eggs.
4 tablets saccharine.

Add saccharine to strawberry purée. Mix milk, cream, and eggs, and add the salt. This makes a mixture the consistency of custard. Cool this mixture and when cool add the strawberry purée and freeze.

Value of each serving:

Protein, 4 grams.
Fats, 6 grams.
Carbohydrates, 4 grams.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Digitized by Google

Original from
UNIVERSITY OF CALIFORNIA

INDEX

	Paragraph	Page
Abrasions of skin, treatment, diabetes mellitus	159	161
Acid diet	83	84
Addison's disease:		
Browned flour, special gravy, and beverages, preparation	112	116
Classification according to potassium content:		
Cereals	110	114
Fruits and vegetables	107	106
Cooking vegetables, meat and fish	111	114
Low potassium diet	106	105
Potassium content of foods	108	109
Precautions to avoid addition of potassium in diets	114	118
2-gram potassium intake diet, construction	109	110
Administration of insulin	145, 152	154, 157
Alkaline diet	82	83
Anticonstipation diets	29, 129	34, 135
High fat, low residue	31, 131	37, 140
Irritable colon	30, 130	35, 138
Menus	186, 191	237, 251
Arthritis:		
Clinical types	70	77
Diets for, methods of prescribing	71	78
Balancing diet, diabetes mellitus	142	152
Basal diet, diabetes mellitus	63	68
Beverages, preparation in ulcer diets	120	122
Bland diet	23	29
Menus	194	259
Bland foods	40	45
Blood sugar estimation	149	155
Calcium diets:		
High	54	61
Low	55	62
Caloric diets:		
High:		
Liquid	34	40
Menus	183	228
Regular	36	41
Selection of foods	133	143
Soft	35	41
Standard	33	39
Low	37, 132	41, 142
Calories, average intake under various states of activity	5	6
Carbohydrate content of fruits and vegetables	171	172
Cardiovascular-renal diet	56–58, 136	63, 148
Menus	189	247

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

	Paragraph	Page
Caution in formulating ketogenic diets	52	58
Cereals:		
Classification according to potassium content	110	114
Preparation for use in ulcer diets	123	124
Cheese, preparation for use in ulcer diets	121	123
Children diets:		
Food selection	102	102
Infant feeding	103	102
Ordering	101	102
Requirements	100	101
Cholecyptography, menus for use in	168	166
Chronic lead poisoning:		
Deleading	105	104
Prescription of diets	104	104
Classification according to potassium content:		
Cereals	110	114
Fruits and vegetables	107	106
Classification of diets	11	16
Clinical types:		
Arthritis	70	77
Diabetes	60	67
Coma, diabetic	154	157
Diagnosis	155	158
Prevention	156	159
Construction of menus. (*See* Menus.)		
Convalescent ulcer diet	21	24
Beverages	120	122
Cereals	123	124
Custards	122	124
Desserts	127	132
Meals, suggestions for	118, 182	121, 226
Meat, poultry and fish	126	129
Milk products, cheese, and gruels	121	123
Post-hospitalization diet	119	121
Soups	124	125
Vegetables	125	126
White sauce	128	135
Custards, preparation for use in ulcer diets	122	124
Deleading, chronic lead poisoning cases	105	104
Dental diets	99	100
High caloric, high vitamin, sample menus for	193	257
Soft, sample menus for	185	235
Desserts, preparation for use in ulcer diets	127	132
Diabetes mellitus:		
Abrasions of skin, treatment	159	161
Blood sugar estimation	149	155
Cause	138	150
Clinical types	60	67
Diabetic coma	154	157
Diagnosis	155	158
Prevention	156	159

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

	Paragraph	Page
Diabetes mellitus—Continued.		
Diets:		
Balancing	142	152
Basal	63	68
Foods for	161	161
Maintenance	64	68
Prescription	66	68
Protein, carbohydrate, and fat ratio	65	68
Recipes	App. III	297
Test	62	67
Types	61	67
Weighing and measuring food	143	153
Eating meals away from home	144	153
Foci of infection	146	154
Hospitalization	141	151
Insulin:		
Administration	145, 152	154, 157
Kinds	150	156
Reaction	153	157
Treatment	157	159
Use, length of time required	151	156
Materials required by patient when discharged from hospital	162	163
Outlook for the diabetic	139	151
Renal threshold	148	155
Surgery	160	161
Symptoms	140	151
Training the diabetic	67	72
Treatment, feet	158	160
Treatment, insulin reaction	157	159
Diabetic coma	154	157
Diagnosis	155	158
Prevention	156	159
Dietary instruction for patients. (*See* Instruction pamphlet for patients.)		
Dietary requirements	8–10	13
Diverticulosis of colon, diet for	42, 134	48, 145
Eating meals away from home, diabetic patients	144	153
Enteric diet	92	90
Ewald test meal	164	165
Feet, treatment, diabetics	158	160
Fish, preparation for use in ulcer diets	126	129
Foci of infection, diabetes mellitus	146	154
Food allergy:		
Causes, determination	84	85
Class I foods	85	86
Class II foods	86	86
Class III foods used in conjunction with class I foods	88	88
Follow-up and record of case	89	88
Ordering diets	87	87
Food elements	6	6

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

	Paragraph	Page
Foods:		
Combination of to form menus	170	169
Composition table	App. I	267
Diabetes mellitus diets	161	161
Gas-forming	177	178
High calcium content	173	176
High carbohydrate content	174	176
High fiber content	175	177
High roughage or cellulose content	176	177
Low fat	172	176
Measures table	App. I	279
Retention diets	25	32
Weight and measures table	App. I	280
Fruits and vegetables:		
Carbohydrate content	171	172
Potassium content	107	106
Galactose tolerance test diet	166	165
Gall bladder diseases, diets for	43–45, 135	50, 147
Gas-forming foods	177	178
Gastric fractional analysis with oatmeal, test diet	165	165
Gastric resection diet	97	99
Gastro-enterostomy diet	96	98
General mess, sample menus	178	179
High fat, low residue diet	31, 131	37, 140
Hospitalization, diabetic patients	141	151
Infant feeding	103	102
Instruction pamphlet data for patients:		
Anticonstipation diets	129, 131	135
Cardiovascular-renal diet	136	148
Convalescent ulcer cases	117–128	120
Diabetes mellitus	137–163	150
Diseases of liver and gall bladder	135	147
Diverticulosis of colon	134	145
Low caloric (reducing) diet	132	142
Purpose	115, 116	119
Test diets	164–168	165
Ulcerative colitis, diet for	133	143
Insulin:		
Administration	145, 152	154, 157
Kinds	150	156
Reaction	153	157
Treatment	157	159
Use, length of time required	151	156
Irritable colon diet	30, 130	35, 138
Ketogenic diet:		
Caution in formulating	52	58
Ketone formation method	50	56
Menus	53	58
Requirements	51	57

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

	Paragraph	Page
Laryngeal diet	93	91
Lead poisoning diets	104, 105	104
Light diets	16	19
Menus:		
General mess	178	179
Officers' mess	179	199
Pernicious anemia	76	81
Liquid diets:		
Composition	12	16
High caloric	34	40
Menus:		
General mess	178	179
Officers' mess	179	199
Pernicious anemia	75	80
Tube feeding	14	17
Liver and gall bladder diseases, diets	43–45, 135	50, 147
Liver diets	78	82
Dishes, preparation	79, App. II	82, 284
Low fat diets	44, 45	50, 51
Low fat foods	172	176
Maintenance diet, diabetes	64	68
Meat, preparation for use in ulcer diets	126	129
Menus:		
Anticonstipation diet	186	237
Bland diet	194	259
Cardiovascular-renal diet	189	247
Cholecyptography	168	166
Construction:		
Carbohydrate content, fruits and vegetables	171	172
Foods:		
Combination, to form menus	170	169
Gas-forming	177	178
High calcium content	173	176
High carbohydrate content	174	176
High fiber content	175	177
High roughage or cellulose content	176	177
Low fat	172	176
Mess operation	169	167
Convalescent ulcer diet	182	226
Dental diets:		
High caloric, high vitamin	193	257
Soft	185	235
General mess	178	179
High caloric diet	183	228
High caloric, high vitamin diet	184	231
High caloric, high vitamin, low residue diet	192	254
Ketogenic diet	53	58
Low fat diet	45, 188	51, 244
Low purin diet	190	249
Low salt anticonstipation diet	191	251

408936°—41——20

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

	Paragraph	Page
Menus—Continued.		
Officers' mess	179	199
Pellagra preventive diet	49	54
Pernicious anemia diet	187	240
Soft diet	181	223
Tuberculosis diet	195	261
Messes:		
Menus:		
General	178	179
Officers'	179	199
Operation	169	167
Milk products, preparation and use in ulcer diets	121	123
Minerals, list and sources	6	6
Normal diet composition:		
Calories	5	6
Food elements	6	6
Vitamins	7	9
Officers' mess, sample menus	.179	199
Ordering diets:		
Children	101	102
Information required by dietitians	3	3
Pernicious anemia cases	80	82
Outlook for the diabetic	139	151
Pamphlets, instructional, for patients. (*See* Instruction pamphlet data for patients.)		
Pellagra preventive diet	46–49	53
Pernicious anemia diets:		
Food selection	74	79
Light	76	81
Liquid	75	80
Liver	78	82
Recipes for liver dishes	79, App. II	82, 284
Menus	187	240
Modification	73	78
Ordering	80	82
Post-hospitalization diet, ulcer cases	119	121
Post-operative diet	95	97
Potassium—		
Content of foods	108	109
Diet, low	106	105
Intake diet, 2-gram	109	110
Poultry, preparation for use in ulcer diets	126	129
Preoperative diet	94	92
Prescription:		
Chronic lead poisoning diets	104	104
Diabetic diets	66	68
Therapeutic diets	18	21
Prevention of diabetic coma	156	159
Protein, carbohydrate, and fat ratio, diabetic diet	65	68

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

	Paragraph	Page
Purin diets:		
High	69	76
Low	68	75
Menus	190	249
Reaction, insulin	153	157
Treatment	157	159
Recipes:		
Diabetics	App. III	297
Liver	App. II	284
Reducing diet	37	41
Regular diets	17	19
High caloric	36	41
Menus:		
General mess	178	179
Officers' mess	179	199
Pernicious anemia	77	81
Tuberculosis	91	90
Renal threshold	148	155
Requirements:		
Children diets	100	101
Ketogenic diet	51	57
Retention diet	24	31
Retention diet:		
Foods suitable	25	32
Requirements	24	31
Types	27	32
Use	26	32
Sample menus. (*See* Menus.)		
Serving liver, ways	App. II	284
Serving portion, standard	9	13
Sippy diet	20	23
Smithie method, treatment of ulcers	22	26
Soft diets	15	18
High caloric	35	41
Menus	181	223
Soups, preparation for use in ulcer diets	124	125
Special diets. (*See* Therapeutic and special diets.)		
Standard high caloric diet	33	39
Sugar tolerance test diet	167	165
Surgery:		
Dental diet	98	100
Diabetes mellitus	160	161
Gastric resection diet	97	99
Gastro-enterostomy diet	96	98
Other surgical cases	99	100
Post-operative diet	95	97
Preoperative diet	94	92
Symptoms, diabetes	140	151

Digitized by Google

Original from UNIVERSITY OF CALIFORNIA

	Paragraph	Page
Table of food composition, weights and measures	App. I	267
Test diets:		
Diabetes mellitus	62	67
Ewald test meal	164	165
Galactose tolerance test	166	165
Gastric fractional analysis with oatmeal	165	165
Menu for cholecyptography	168	166
Sugar tolerance test	167	165
Therapeutic and special diets:		
Acid	83	84
Addison's disease	106–114	105
Alkaline	82	83
Anticonstipation	28–31	33
Arthritis	70, 71	77, 78
Calcium	54, 55	61, 62
Caloric:		
High	32–36	38
Low	37	41
Cardiovascular-renal	56–58	63
Children	100–103	101
Chronic lead poisoning	104, 105	104
Diabetes mellitus	59–67	66
Disease of colon	39–42	45
Food allergy	84–89	85
Ketogenic	50–53	56
Liver and gall bladder diseases	43–45	50
Pellagra preventive	46–49	53
Pernicious anemia	72–80	78
Prescribing	18	21
Purin	68, 69	75, 76
Retention	24–27	31
Surgery	94–99	92
Tuberculosis	90–93	89
Ulcer	19–23	22
Training the diabetic	67	72
Treatment:		
Feet, diabetics	158	160
Insulin reaction	157	159
Tube feeding	4	17
Tuberculosis diets	90–93	89
Enteric	92	90
Laryngeal	93	91
Menus	195	261
Regular	91	90
2-gram potassium intake diet	109	110
Ulcerative colitis, diet	41	46
Ulcers, diets used in treatment	19–23	22
Bland diet	23	29
Menus	194	259
Convalescent diet	21	24
Menus	182	226

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

	Paragraph	Page
Ulcers, diets used in treatment—Continued.		
Modified Sippy diet	20	23
Smithie method	22	26
Urine, examination	147	154
Vegetables:		
Carbohydrate content	171	172
Classification according to potassium content	107	106
Preparation for use in ulcer diets	125	126
Vitamin diet, high	38	44
Vitamins:		
Importance in diets	6	6
List, source, and other data	7	9
Ward officer:		
Inspection of diets	4	5
Ordering diets	3	3
Weighing and measuring foods, diabetic patients	143	153
Weights and measures table	App. I	280
White sauce, preparation for use in ulcer diets	128	135

[A. G. 062.11 (6-10-41.)]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

E. S. ADAMS,
Major General,
The Adjutant General.

DISTRIBUTION:

X

(For explanation of symbols see FM 21–6.)

U. S. GOVERNMENT PRINTING OFFICE: 1941

For sale by the Superintendent of Documents, Washington, D. C.

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA

Digitized by Google

Original from
UNIVERSITY OF CALIFORNIA

Digitized by Google

Original from
UNIVERSITY OF CALIFORNIA

Digitized by Google

Original from
UNIVERSITY OF CALIFORNIA

Digitized by Google
Original from UNIVERSITY OF CALIFORNIA