



GOOD HEALTH
from
balanced meals

AUSTRALIAN RED CROSS SOCIETY



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GOOD HEALTH FROM BALANCED MEALS

FOREWORD

THE Red Cross functions both in peace and in war, and its many activities aim to relieve the sufferings of those in distress and to succour those in want.

The results of scientific investigation have shown that what people eat plays an important part in their health and welfare.

Clinical investigations reveal that in addition to illness so severe as to be characterised by the term "disease," there is a vast amount of definite ill-health due to deficiencies in the diet.

Food consumption surveys conducted in 1936 and 1944 by the Commonwealth Health Department showed that although most people in Australia are, on the whole, well fed, there are some who do not obtain adequate amounts of the right kind of food. This is causing many minor departures from normal health, especially amongst the younger children in both town and country. Evidence points to faulty selection of food as being the main reason.

The Australian Red Cross Society, recognising that nutrition was a field eminently suitable for its activities relating to the "prevention of disease, the improvement of health and the mitigation of suffering," offered its services to the Commonwealth Government in 1943 to assist in the task of disseminating nutrition knowledge.

Nutrition campaigns have been held throughout the Commonwealth, and many people have been reached through nutrition courses and lectures. The health of our nation can be revolutionised if adequate nutrition is obtained by every expectant and nursing mother, every child and every adult in the community.

This booklet has been prepared to assist you to choose well-balanced meals and to supply information about food values.

Due to the large demand for the previous edition, it has been found necessary to reprint earlier than was expected. This revised edition contains augmented notes on family requirements, also charts prepared from the Commonwealth Health Department Food Tables, which should be of the greatest value to those concerned with planning the family meals.

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Planned Meals Are Necessary
for Good Health.

Good Health

THIS is the greatest asset in life, and by a knowledge and application of certain principles much can be achieved towards the goal of perfect health.

Health is influenced by the following factors :—

1. Adequate quantities of the right foods.
2. Fresh air, good lighting and heating.
3. Exercise.
4. Rest and sleep.
5. Happy relationships and environments.

It is necessary to eat for the following reasons :—

1. To supply our bodies with heat and energy.
2. To repair the wear and tear of the body, and in the young to provide for growth.
3. To provide substances which control the various processes of the body.

The Classes of Foodstuffs.

1. CARBOHYDRATE.
2. PROTEIN.
3. FAT.
4. VITAMINS.
5. MINERALS.
6. ROUGHAGE OR FIBRE.
7. WATER.



Food Essentials for Health

ENERGY NEEDS

THE body must be supplied with sufficient energy to meet the needs of the various activities performed, such as working, moving and so on, and for the maintenance of body heat or temperature. The amount of energy needed can be calculated. For the measurement of energy a unit is used, the Calorie (or great Calorie). A calorie is the amount of heat required to raise one kilogram (about $2\frac{1}{4}$ lbs.) of water 1° Centigrade. Food is the source of energy to the body. The energy contained in each food constituent is measured in calories.

The calorie value of **protein** is 4.1 calories per gram; of **carbohydrate** (starches and sugar), 4.1 calories per gram; and of **fat**, 9.3 calories per gram.

Foods are made up of these constituents in varying amounts—so the calorie value of each food can be calculated from the proportion of carbohydrate, protein or fat it contains; e.g., a food made up entirely of fats, such as butter, would have a high calorific value.

ENERGY FOODS

Carbohydrates.—The main bulk of calories is obtained from the carbohydrates, found in cereal products (such as flour, bread and oatmeal), some vege-

tables, fruits, sugar, honey and jam. Usually about half the fuel requirements of the body are obtained from carbohydrates.

Fats.—Butter, cream, animal and vegetable fats and oils.

Proteins.—Only about 10-15% of the total energy value of a diet needs to be supplied as proteins, found chiefly in meat, fish, eggs, milk and cheese.

Factors Affecting Energy Needs.

(a) **Size.**—A large individual needs more than a small.

(b) **Age.**—A growing child needs more in proportion to size than an adult. In old age needs are lessened.

(c) **Activities.**—The more work or physical activities performed, the more calories or energy required. The sedentary worker requires less than the active worker.

(d) **Climate and Season.**—The colder the climate, the greater the energy needs to keep up the body temperature. One chooses more fats and carbohydrates in winter, and lighter foods, salads and fruits in summer.

(e) **Sex.**—A man requires more calories than a woman. Calories taken in excess of requirements are stored away by the body as fat.

BODY BUILDERS

Protein.—Protein is necessary for building new body tissues and for replacing the loss through wear and tear. The growing child, therefore, needs proportionately much more protein than the adult.

Proteins, when digested by the body, are broken down to amino-acids. One protein (e.g., albumin of egg) differs from another protein (e.g., meat) because of the different number and types of amino-acids forming it.

Many different amino-acids are required to make the tissues of the human body, and if protein does not contain all the essential amino-acids it cannot sustain life.

The proteins which contain an abundance of essential amino-acids are called "first class proteins."

They are of animal origin, and are capable of building up and maintaining body tissues; they are found in meats, fish, eggs, milk and cheese.

Those proteins containing most of the amino-acids, but perhaps lacking one or two essential amino-acids, are called "second class" proteins. They are found in nuts, cereals, legumes and other vegetables.

Often a mixture of second class proteins will supply all the essential amino-acids in sufficient amounts.

Proteins are also a source of energy.

VITAMINS

Vitamins control certain processes in the body and are essential for health and vigour. A deficiency of any vitamin in our food will result in ill-health, actual disease, or even death in extreme cases.

Many vitamins have now been discovered, and the best known are Vitamins A, B₁, B complex, C and D.

Some of them have now been prepared from foods in a concentrated or even pure condition, and others have been made artificially. These products should only

be for medicinal use, for it is possible to obtain all the vitamins we need from the food we eat.

VITAMIN A

Functions :

- (1) Promotes growth.
- (2) Prevents disease of the eyes.
- (3) Prevents night blindness.
- (4) Reduces susceptibility to infections of the nose and throat.

Sources :

Fish liver oils, butter, cream, eggs, milk, cheese, liver, green and yellow vegetables and fruits — e.g., all leafy greens, tomatoes, carrots, apricots.

VITAMIN B₁ (Thiamin)

Functions :

- (1) Prevents beri-beri.
- (2) Stimulates the appetite.
- (3) Aids digestion and elimination.
- (4) Maintains healthy nerves.
- (5) Enables the body to utilise carbohydrate.

Sources :

Wheat germ, wholegrain cereals, yeast extracts, liver, egg yolk, pork, milk, vegetables, fruit, peanuts, walnuts and almonds.

VITAMIN B Complex

This vitamin consists of a number of substances, the chief of which are Riboflavin and Niacin (nicotinic acid).

Functions :

Niacin—

- (1) Prevents pellagra.
- (2) Aids digestion.
- (3) Prevents nerve and skin disorders.

Riboflavin—

- (1) Prevents inflammation of the eyes, ulceration and fissuring of the corners of the mouth.

Sources :

Both niacin and riboflavin are found in liver, yeast extracts, meat, milk, eggs, green vegetables.

VITAMIN C (Ascorbic acid)

Functions :

- (1) Prevents scurvy.
- (2) Necessary for healthy tooth and gum structure.
- (3) Strengthens the capillary walls.

Sources :

Citrus fruits, tomatoes, berry fruits, potatoes, swedes, parsley, and all raw fruits and vegetables.

VITAMIN D (Calciferol)

Functions :

- (1) Prevents rickets in children and softening of bones in adults.
- (2) Essential for bone and tooth formation.
- (3) Essential for absorption of calcium and phosphorus.

Sources :

Butter, eggs, milk, fish liver oils, green vegetables, and sunshine.

MINERAL SALTS

The human body requires many different mineral elements, including calcium, phosphorus, iron, iodine, copper, magnesium, sulphur, sodium, potassium, zinc, etc.

From a dietetic point of view, the first four are extremely important; for if these are present in the diet in adequate amounts it is usually safe to assume that the remaining minerals will also be present in sufficient quantities.

CALCIUM

Functions :

- (1) Essential for bone and tooth formation.
- (2) Maintains muscle tone.
- (3) Aids the clotting of the blood.

Sources :

Milk, cheese, eggs, wholegrain cereals, green vegetables, hard water, nuts.

PHOSPHORUS

Functions :

- (1) Essential for bone and tooth formation.
- (2) Enters into the composition of all body cells.

Sources :

Milk, meat, eggs, cheese, bread, cereals and nuts, particularly almonds.

IRON

Functions :

- (1) Prevents anaemia.

Sources :

Liver, kidneys, meat, eggs, green vegetables, apricots, raisins, prunes, wholegrain cereals.

IODINE

Functions :

- (1) Prevents goitre.

Sources :

Sea foods, many vegetables, iodised salt.

ROUGHAGE

Roughage forms the indigestible fibrous matter in foods which is necessary to ensure proper progress of food through the digestive organs, and aids normal elimination of waste products from the body. It is found in wholegrain cereals, vegetables and fruit.

WATER

Water is a very important constituent of the diet, for approximately two-thirds of the body weight consists of it. Water is also the chief component of blood, which transports to the cells the nutritive elements of our food and carries away the waste products of metabolism. Water helps to keep the body temperature at a constant level.

The majority of people do not drink sufficient water. It is advisable to take **FOUR** to **SIX** glasses daily.



Foundation Foods

Foundation foods—milk, dairy products, meat, vegetables, fruit and whole-grain cereals—should form the basis of all family meals.

FOUNDATION foods, together with sufficient energy foods, ensure a balanced diet. Foundation foods are those which, if included in a dietary, give all the necessary body building and regulating factors to maintain health and growth. They “protect” against disease and ill health.

The foundation foods are:—

MILK— $\frac{3}{4}$ -1 pint daily for adults.
1-2 pints daily for children.

BUTTER—1 oz. daily when possible.

MEAT OR FISH—One serving daily.

EGGS—Three to four weekly for an adult; one daily for a child.

VEGETABLES—One serving of potatoes daily; two other vegetables (one a yellow or green leafy vegetable), one uncooked.

FRUITS—Two servings daily, at least one raw.

WHOLE - GRAIN CEREAL PRODUCTS—Bread, oatmeal or wheat-meal porridge, etc.

In order to supply an adequate diet, it is first necessary to ensure that there is an abundance of these protective foods. Once this has been done, the remaining calories can be supplied by the non-protective foods, according to taste and income. From a nutritional point of view, the more milk, cheese, eggs, vegetables and fruit a diet contains the better the diet becomes.

Sea fish and liver should be included once weekly. The remaining calories can be made up with any foods desired. If much bread or cereal is included, it is wise to see that a fairly large proportion is whole grain.

MILK

Milk is a perfect food for young animals, containing all the essential elements. Human milk is the perfect food for babies. An adult needs other foods in addition, as milk is too bulky.

Milk contains:—

PROTEIN, for growth and repair.

CARBOHYDRATE, for heat and energy, in the form of milk sugar or lactose.

FAT, for heat and energy, in the form of very small, easily digested, fat globules throughout the milk, which rise to the surface on standing, to form cream.

MINERALS—Milk is a source of calcium and phosphorus, which are essential for healthy bones and teeth; a little iron is also present.

VITAMINS—All the known vitamins are contained in milk, though Vitamin C is rather low. Vitamins A and D are contained in the fat, and are thus lost in skimmed milk.

An adult should aim to include one pint in the diet daily. A child needs $1\frac{1}{2}$ to 2 pints daily. Nursing and expectant mothers also require extra milk, and should try to obtain up to 2 pints daily. Milk is a cheap food when one considers its valuable properties. Where milk is difficult to obtain, the supply may be supplemented by the use of skimmed or separated milk. Skimmed milk lacks the cream, and is therefore deficient in Vitamins A and D, otherwise it contains the valuable properties of whole milk. Condensed milk is a more expensive milk preparation. Dried milk, either whole or skimmed, is an excellent, cheap supplementary food. 2 ounces of dried full-

cream milk or $2\frac{1}{2}$ ozs. cheese are equal to one pint of fresh milk.

Milk may be used in the diet in many ways, such as in milk beverages, plain or flavoured with cocoa or coffee, etc. In puddings and sweets—baked or boiled custards, junket, ice cream. In soups and sauces — creamed soups and white sauces.

Care of Milk.

Because milk is such an excellent food for humans and animals, it is also excellent food for "germs" or disease-carrying organisms, and therefore care must be taken to keep the milk as free from these organisms as possible.

Pasteurisation of milk kills these organisms, and by obtaining pasteurised milk in sterilised and sealed bottles the householder receives a safe milk. It is the housewife's duty to see that it remains a safe, clean milk until consumed, by keeping the bottle sealed and cool until used. If a refrigerator or ice chest is available, the milk should be kept at 45°F . A "drip" safe is an excellent method of keeping milk cool; even an improvised system of standing the milk in a basin of water and covering with a damp cloth will be effective.

MILK PRODUCTS

CHEESE contains the most valuable constituents of milk in a highly concentrated form. It is extremely rich in calcium and phosphorus. As cheese contains about as much protein as meat, it is important to include it in the diet where meat is rationed or difficult to obtain.

Savoury cheese dishes — e.g., macaroni cheese—should be used frequently to "stretch" the meat ration.

BUTTER contains Vitamins A and D, supplies energy, and is the most easily digested form of fat. The daily requirement is 1 oz. of butter (when available). This should be eaten on bread or added to vegetables. Do not use the ration for cooking purposes—use lard or dripping instead.

OTHER FATS—lard, dripping, margarine, suet, oil, etc. — have the same energy value, but do not contain the vitamins of butter. They are useful to stretch the butter ration.

EGGS

Eggs contain first-class protein, minerals — especially iron and phosphorus—vitamins A, B and D, and fat in an easily digested form. An adult requires three to four eggs per week, while children should have one daily where possible. When eggs are expensive and difficult to procure, an adult may find it necessary to use some other first-class protein to replace part of the weekly requirement. Cheese, meat or extra milk could be used.

MEAT

Meat, fish and poultry are foods of animal origin and contain first-class protein, which is essential for growth and repair. The protein value of meat, fish and poultry is approximately the same whether red or white; therefore in choosing meat for an invalid consideration should be given to the digestibility and method of cooking rather than the colour. Fish and poultry are very often expensive and hard to procure.



Vitamins A, B1, B2 and D are all found in meat, especially liver. The chief mineral found in meat is phosphorus. Iron is also present, and is essential for blood formation. Liver and red muscle meats are rich in this element.

Fish is a good source of iodine, and is a valuable protein food.

The appetising flavour of meat is due to the extractives present. Red meats contain more of these extractives than white meats.

Daily Requirement.—The average individual requires approximately three to five ounces of meat daily—*i.e.*, one average serving. Meat twice daily is good, but not essential. Meat thrice daily is extravagant and unnecessary unless very small servings are taken at each meal.

Cooking of Meat.—Heat coagulates protein—*e.g.*, egg white sets on cooking. If cooked at very high temperatures or for long periods, protein becomes tough and difficult to digest. Meat shrinks when cooked; therefore an overcooked joint is smaller and less economical than a moderately cooked one. Meat should be baked slowly at a temperature of 330°F., and basted frequently. In using left-over meats, do not re-cook; only re-heat the prepared dish. Meat should always be cut across the grain.

VEGETABLES

Vegetables are protective foods, as they contain minerals and vitamins. They have aesthetic value in colour, flavour and texture, and give variety to the menu, as well as bulk and roughage to the diet. Vegetables contain Vitamins A, B, and C, and the minerals iron, calcium and iodine. The following vegetables should be included daily:—

Potato, preferably cooked in its jacket, is a source of Vitamins B and C, calcium, phosphorus and iron. It is a good energy food.

Green Leafy Vegetables, freshly picked, raw and cooked, contain Vitamins A, B and C and mineral salts—iron, calcium and iodine. They should be used generously, and are especially suitable for salads.

Root and Other Vegetables, particularly those yellow and green in colour—*e.g.*, carrot, swede—contain Vitamins A and C and minerals. They are generally a cheap source of these vitamins. Use may be made of these vegetables in soups and stews, savouries combined with meat, eggs or cheese, salads; or as juice, *e.g.*, tomato or swede juice as a substitute for orange juice or as accompaniment to meat.

Cooking of Vegetables.

Cooking vegetables makes them softer and more easily digested, but tends to destroy the vitamins and lose minerals; therefore consider cooking methods carefully.

Root Vegetables.—Cook in skins where possible. Steam rather than boil, until just tender. Serve immediately.

Leafy Vegetables.—Wash well, but do not soak. Cook quickly in a little water, add salt but no soda, and keep the lid on the saucepan. Use cooking water for soups or gravies. Serve immediately.

FRUITS

One or two pieces of fresh fruit should be included daily in the diet. It may be used raw, or as juice, or in salads, sandwiches, baked or stewed, or as dried fruits. Fresh fruits are particularly valuable for their Vitamin C content—especi-



ally black currants, citrus fruits (oranges or lemons, etc.), pawpaw, pineapple, tomato, berry fruits, and rose hips.

Apricots, nectarines, pawpaws, mangoes, cantaloupes and yellow peaches are all rich sources of Vitamin A.

Apricots also contain iron.

When they are cheap in price, apricots, apples and vine fruit in the dried form are useful additions to the diet.

CEREALS

Whole-Grain Cereals.—Cereals contain starch, protein (second class), roughage, small amounts of fat, water, Vitamins B1, B2 and minerals, e.g., calcium, phosphorus and iron. Each climatic zone produces certain cereals. Rye and oats are grown in colder regions, wheat and barley in temperate zones, and rice in tropical zones.

Structure of Wheat Grain.—Outer layers—bran and pollard—contain fat, protein and minerals. Aleurone layer—Vitamins B1 and B2 and roughage. Centre of grain—the endosperm from which white flour is made—contains starch, protein, some Vitamin B1 and B2, and minerals. Germ contains fat and minerals and Vitamins B1 and B2.

In the milling process of white flour, the outer layers of bran and pollard are removed, and thus protein, vitamins and minerals are lost. It is therefore advisable to use wholemeal bread and cereals where possible. The protein in wheat is gluten, an elastic substance which holds gas in the dough and makes light and spongy bread.

Cereals are always cheap foods, and form the bulk of the diet, especially in low-cost meals, where they are the chief source of energy.

Purchase of Cereals.—During the summer months buy only for one month at a time, to prevent spoilage. During winter months it is cheaper to buy larger quantities and store. Packeted and processed cereals are always more expensive than loose varieties owing to the extra handling and preparation, and their nutritive value is less.

Storage of Cereals.—Store in perfectly clean, dry and air-tight containers (tins or jars) in a cool dry place.

Cooking of Cereals.—All cereals require cooking to increase digestibility. Heat bursts the starch grains, which then absorb moisture, causing the food to thicken.

Cereals should be cooked slowly for long periods rather than quickly for a short period (if mixed to a smooth paste with cold water before heating, lumps will be avoided). Cereals may be used as porridge; as a meat "stretcher," e.g., curry and rice; as thickening in sauces, gravies, stews, soups; and in sweets and other flour mixtures.

SUGARS

Sugars.—These are energy foods, but contain no "protective" elements; therefore should be used in the diet only when all the protective foods have been included in adequate amounts. Sugars quickly satisfy the appetite and should be taken only at the end of a meal. Treacle, brown sugar and honey can be used instead of white sugar.





Chief reason for cooking food — because man likes it better that way.

Preparation and Serving of Foods

FUNDAMENTAL principles of nutrition should be put into practice when feeding the family. Family requirements must be considered, meals planned and budgetted, so that all protective foods are included, and the meals are appetising and satisfying.

Kitchen planning is important, as it is the housewife's workshop. Consider the sequence of—

1. Preparation and cooking food.
2. Serving the meal.
3. Clearing away.

Preparation.—Work from left to right, having stores and food cupboards convenient to preparation bench and stove.

Serving.—The service table should be adjacent to the dining room. A movable table is most convenient.

Clearing Away.—Work from right to left. Stack used dishes on the right side of the sink. Have china cupboards near to the left of the sink.

For good results in cookery one must have accuracy in weights and measures. Avoid a centre table in the kitchen, as this causes waste of time and steps. Use a few, well-chosen, useful kitchen utensils. Consider economy in fuel. Taste all food before serving.

Meal Planning.—Plan the menu well ahead and consider—

1. Nutritive value—include all protective foods.

2. Cost.—If budget is limited, choose cheap nutritious foods and consider the use of left-over food.
3. Home Production of Foods.—Fresh picked vegetables and fruits have the greatest nutritive value. Therefore home production of fruits and vegetables is desirable when possible. Surpluses can be bottled and preserved for the winter months. The keeping of fowls should ensure a supply of eggs.
4. Efficiency.—A list of requirements for the week will simplify the shopping.
5. Variety.—With a planned menu, one can introduce greater variety into the meals.

Arrangement of the Menu.

Select and order for the day:—

1. Meat.
2. Vegetables.—Potato, green vegetables and root vegetable. A vegetable soup may be included if desired.
3. Sweet.—If a heavy meat course has been planned, then have a light sweet, such as a milk pudding with stewed fruit. If steamed or boiled puddings or pastry are on the menu, avoid a roast meat course.
4. Breakfast and tea dishes to balance the dinner. Include salads frequently and use up left-over foods.

Effects of Cooking on Food

THE chief reason for cooking food is that man likes it better that way, for pleasing and appetising flavours are developed and digestibility is increased. In many instances cooking increases wholesomeness. Heat kills bacteria and parasites which may be present in such foods as meat (especially pork), milk, cereals and vegetables.

But there are a number of disadvantages, especially if bad cookery methods are employed.

Carbohydrate Foods.—When insufficiently cooked, flour mixtures develop a doughy consistency and form soft balls in the stomach which are difficult to digest (hot bread, scones, etc.).

Fatty Foods.—Pastries and fried foods should not be included too often in the diet as they may be hard to digest, especially if too much fat is incorporated in, coated on, or absorbed in the food.

Protein Foods.—Meat, fish, eggs and cheese dishes become tough and leathery

if cooked at too high a temperature, which makes them difficult to digest.

Mineral Salts.—As much as half of these may be dissolved out into the cooking water and lost, in the case of boiled meats and vegetables. By cooking potatoes and other vegetables in their skins, not only is there less loss of important constituents, but the more important minerals and vitamins in the outer layers are retained. Losses are greater if vegetables are cut into small pieces and cooked for a long time.

Vitamins.—Vitamins B1, B complex, and C readily dissolve out into the cooking and may be lost if such water is not utilised. Vitamins A and D are not soluble in water.

Vitamins A and D are not destroyed by heat under ordinary cooking methods, but prolonged heating at high temperatures will destroy Vitamins B1 and B complex. Vitamin C, however, is readily destroyed in cooking process, especially if exposed to the air.



Family requirements must be considered.

Meals for the Family

ALL members of the family must have a balanced diet suited to their particular needs. The **foundation foods**—milk, dairy products, meat, vegetables, fruit and whole-grain cereals are required by all, and should form the basis of the family meals.

The man will require additional starches, sugar and fat, especially if he is doing heavy physical work.

The wife's need of energy foods will vary according to her activity.

Children must have ample of the foundation foods for the maintenance and

development of their bodies and sufficient energy foods for their activities.

The nutritional requirements of mothers and pre-school children call for special consideration. The foundations of good health are laid before the baby is born and during the first five years of childhood.

Since healthy bones and strong muscles and teeth are manufactured entirely from food, that selected and eaten by the expectant and nursing mother and the foods provided for the young child are of great importance.

A DAILY FOOD GUIDE FOR THE FAMILY

Breakfast is an important meal. The taking of food first thing in the morning starts digestive activity and provides the energy natural for the morning's work. Foods to include—

Fresh raw or stewed fruit.

Porridge, which is cheap and nutritious, or a prepared meal that is easy to prepare though not such good food.

Milk and sugar.

Hot dish—egg, meat, tomatoes and bacon, etc.

Toasted wholemeal or white bread.

Butter, marmalade or jam.

Beverage such as milk, tea, coffee or cocoa.

Lunch or Tea.

Meat, cheese, fish or egg dish, utilising left-overs when necessary, or a substantial soup with vegetables and cereals.

Salad or cooked vegetables.

Bread and butter, jam or yeast extract.

Beverage—tea, coffee, fruit juice, or milk.

Fruit.

For the cut lunch include the foundation foods. The "Oslo" type of meal is ideal, as it contains body-building foods and is easy to prepare. It consists of—

Wholemeal bread or roll and butter,

A piece of cheese,

$\frac{1}{2}$ pint of milk,

Raw vegetables and fruit.

For variety, the cheese can be replaced by meat, egg, fish or peanut butter in some of the sandwiches, and the fruit and vegetables may be varied. In cold weather hot vegetable and milk soup or cocoa can be given.

A fruit bun or plain cake can be included if desired.

Pack the lunch carefully in a clean, frequently sterilised, airtight tin, wrapping the sandwiches in clean lunch paper. Encourage the child to eat a healthful lunch and not to purchase sweets, ice blocks, cordials and biscuits, which destroy the appetite.

Give milk or fruit if hungry on returning from school, so as not to spoil the appetite for the main dinner meal.

Dinner.

Vegetable soup, if desired.
Serving of meat, fish, egg or cheese.
Serving of potato.
Vegetables—especially green or yellow.
Milk or other pudding.
Stewed or raw fruit.

Please remember that the busy housewife readily excuses herself from preparing any meal when she is alone. She rushes a small meal—often starchy and inadequate—with a cup of tea. It must never be forgotten that all women in the child-bearing years rapidly become anaemic if they do not take sufficient meat, eggs, cheese, and green vegetables, and the latter not overcooked, or preferably a salad.

Anaemia is a fruitful cause of lack of energy, poor outlook on life—and even disease. Therefore do not neglect this matter of good meals even when not eaten in company.

A DAILY FOOD GUIDE FOR EXPECTANT AND NURSING MOTHERS

Mother and baby will be healthier if the right foods are eaten by the expectant and nursing mother.

These are the essential foods to be used unless advised otherwise by the doctor.

MILK.—At least 1½ pints daily.

CHEESE.—1-2 ozs. daily.

EGGS.—One daily.

MEAT.—One serving daily, unless ordered otherwise by the doctor. Liver or kidneys once weekly. Sea fish once a week, if possible. (If fish is unprocurable, iodised table salt can be used with savoury dishes.)

VEGETABLES. — One serving of potatoes — at least two tablespoonfuls;

and one serving of green leafy vegetables (e.g., cabbage, brussels sprouts, silver beet, young turnip tops, young beetroot tops, spinach.

and one serving of root vegetables, coloured if possible (e.g., carrots, swedes, etc.).

Salad vegetables are also necessary (e.g., lettuce, celery, tomatoes, cress, parsley).

N.B.—Parsley may be used liberally.

FRUIT.—Three pieces daily, including one orange or one tomato (in season); also one serving of stewed fruit.

WHOLE-GRAIN CEREAL. — One serving of oatmeal or wheatmeal porridge, and some wholemeal bread.

WHEAT GERM.—One to two dessertspoonfuls daily is desirable.

BUTTER.—One oz. daily.

WATER.—Plenty of water should be taken during the day. (At least three glassfuls, in addition to other drinks.)

IMPORTANT POINTS

Cook simple foods.

Have regular meal hours. (Frequent small meals are often preferable to three larger ones.)

Take time to eat. Chew your food well.

Take plenty of fresh fruits and vegetables and wholegrain cereals to prevent constipation.

AVOID—

Foods which cause digestive upsets—e.g., fried and highly seasoned dishes.

Alcoholic beverages.

Large amounts of tea and coffee.

Overeating.

Excessive fatigue and emotional strain.

Too much sugar and sweet foods.

PATTERN FOR MEALS

A glass of water on rising.

Breakfast.

Porridge or cereal, plus wheat germ, with milk and sugar.

Egg or fish.

Wholemeal bread or toast.

Butter, yeast extract.

Fruit

Beverage—preferably milk.

Lunch.

Meat, cheese, fish or egg (in winter, creamed vegetable soup, if desired).

Large salad.

Wholemeal bread and butter with marmite or vegemite, jam or honey.

Fruit and milky beverage.

Dinner.

Meat or fish.

Potato in jacket.

Vegetables (two servings—including a large serving of green leafy).

Milk pudding with fruit.

Between Meals.

Milk drink, pure fruit juice or fresh fruit.

Home-made biscuit, scone, bread and butter, or plain cake if desired.

Check meals to see you eat the basic foods each day.

Eat the foods you want after you have eaten the foods you should.

Good food habits are important. They will help to maintain your health and milk supply and give baby a good start in life.

HINTS FOR FEEDING CHILDREN

Children need the right food to provide for the demands of growth, development and almost ceaseless activity of their bodies.

To ensure these needs being met, give daily:—

1½ pints of milk.

Three to four eggs a week.

One to three ozs, meat, depending upon age. It is advisable to serve liver and fish once a week if possible.

One potato cooked in skin.

One serving green vegetables.

One serving root vegetables—carrots and swedes are excellent.

Raw salad vegetables whenever possible.

One or two servings fruit, specially oranges and tomatoes.

Ration of butter.

One serving whole-grain cereal—porridge and wholemeal bread.

Make these the foundation of the menu, then include other foods as available in the family meal plans.

The foods can be arranged for the young child as follows:—

Breakfast.

Oatmeal porridge with milk.
Wholemeal bread or toast with butter and marmite or vegemite.
Egg, if liked.
Milk or cocoa.
Piece of apple or other fruit.

Dinner.

Meat or fish with potato, greens and root vegetable.
Milk pudding with stewed or raw fruit.
Milk drink.

Tea.

Egg (if not taken at breakfast), cheese or meat or vegetable, cream soup.
Wholemeal bread with butter.
Milk drink.
Piece of raw vegetable or fruit.

Between Meals.

Milk, water, fruit juice or fruit.

The mother can cook one set of meals for the family as long as the menus con-

tain the basic foods. All have the same food requirements, except that older children and adults need various items in greater amount.

Variety in meal planning is important.

Attractively served food, suitable china, chair, table and equipment all affect the child's enjoyment of food.

Meals should be at regular hours.

Food likes and dislikes should not be discussed in front of children.

Remember lollies, cake, biscuits, etc., between meals destroy the appetite for the foundation foods to be served at the next meal.

FOOD FOR ADOLESCENTS

The period from 12 to 20 is one of rapid growth, and it is important to remember that girls and boys at this period require plenty of body building material. Hence, it is essential to give them plenty of milk and dairy produce, fruit, vegetables, and to include whole-grain cereals among their energy foods.

Whether they be working or at school, the lunch needs to be adequate. Wholemeal bread and butter, with cheese, eggs, meat or fish, raw vegetables, fruit, and a milk drink should be included. Thick soup and a slice of bread is preferable to buns and cakes. Salad sandwiches are better than pastries.

PLANNING FOR HEALTH

PLANNING for good nutrition means a healthy, happy family. It also means that we choose natural foods containing the necessary food factors, and prepare them in such a way that they are appreciated.

Let your slogan be—

GOOD FOOD, GOOD EATING HABITS, AND GOOD HEALTH.

Daily Requirements

FOOD NEEDS AND FOOD VALUES

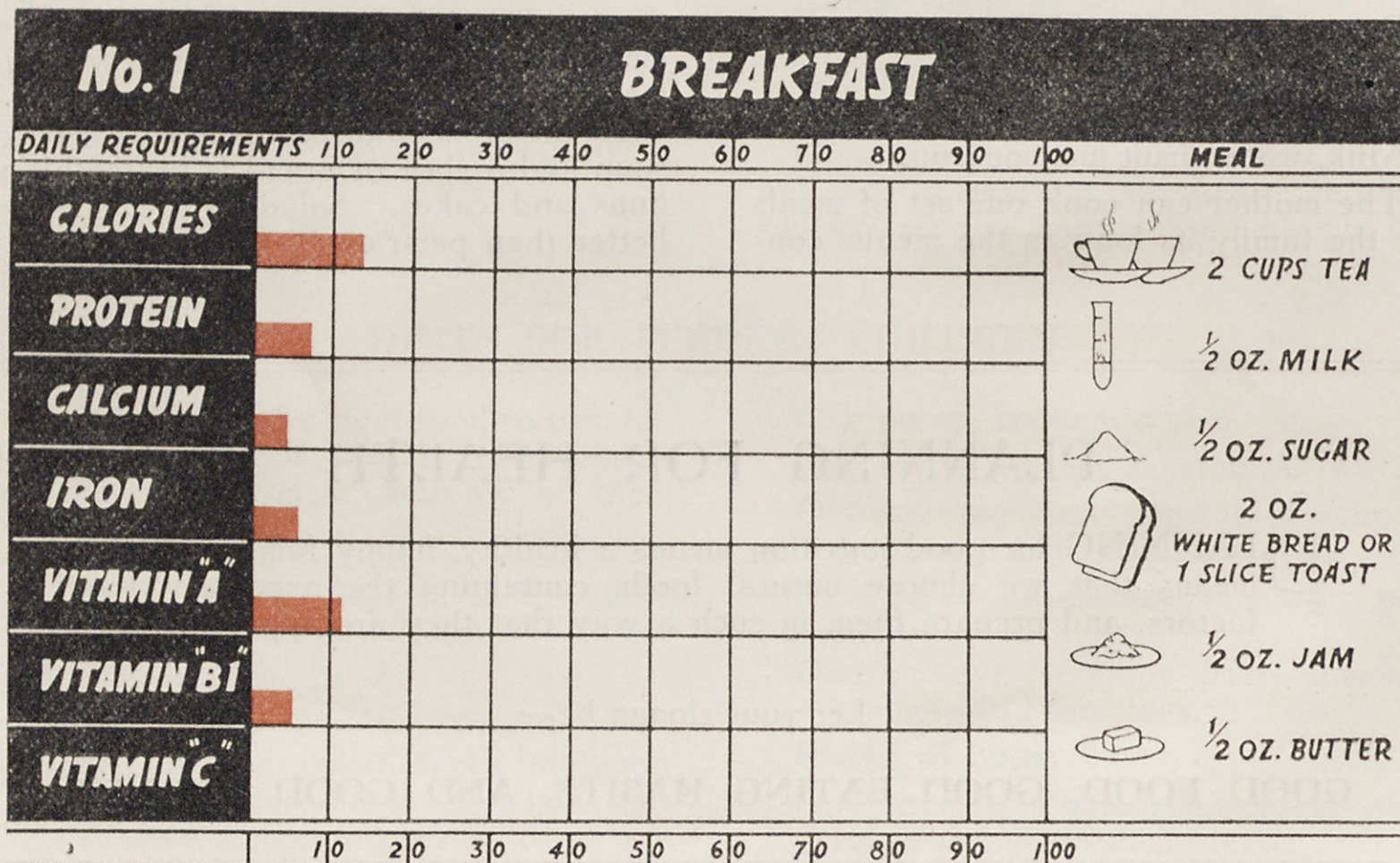
In the following pages will be found a series of charts showing the percentage of daily requirements supplied by various breakfast, lunch and dinner menus.

THESE charts were calculated from the Australian Food Tables (1946) and the Recommended National Research Council Dietary Allowances, U.S.A., for an average woman doing moderate work, and two special school lunch menus for a child 10-12 years old (see National Research Council Dietary Allowances, page 24).

As an example, look at Breakfast No. 1 and No. 3—compare the length of the columns, and then look at the menus! Notice the foundation foods included in No. 3. Check the rest of your family's

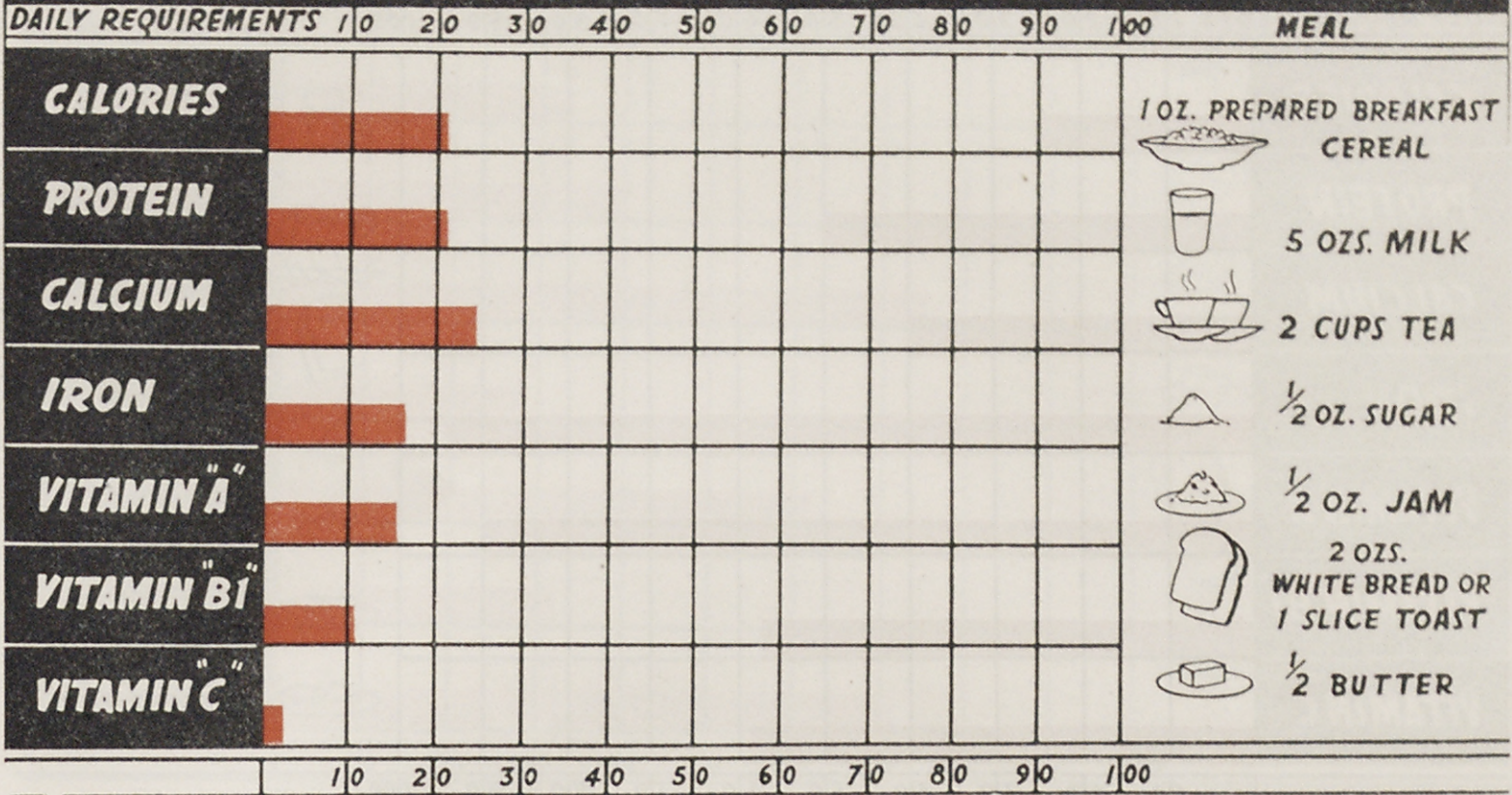
daily menus in the same way and see if they add up to 100%. If so, you are giving your family a well-balanced diet. If not, see what foods need to be added to your menu to increase the various deficiencies.

Through a study of these charts, the housewife can appreciate more readily the important contributions which foods such as milk and other dairy products, fruits and vegetables, whole grain products, eggs, meat, fish, make to good health, and the special needs of growing children and expectant and nursing mothers.



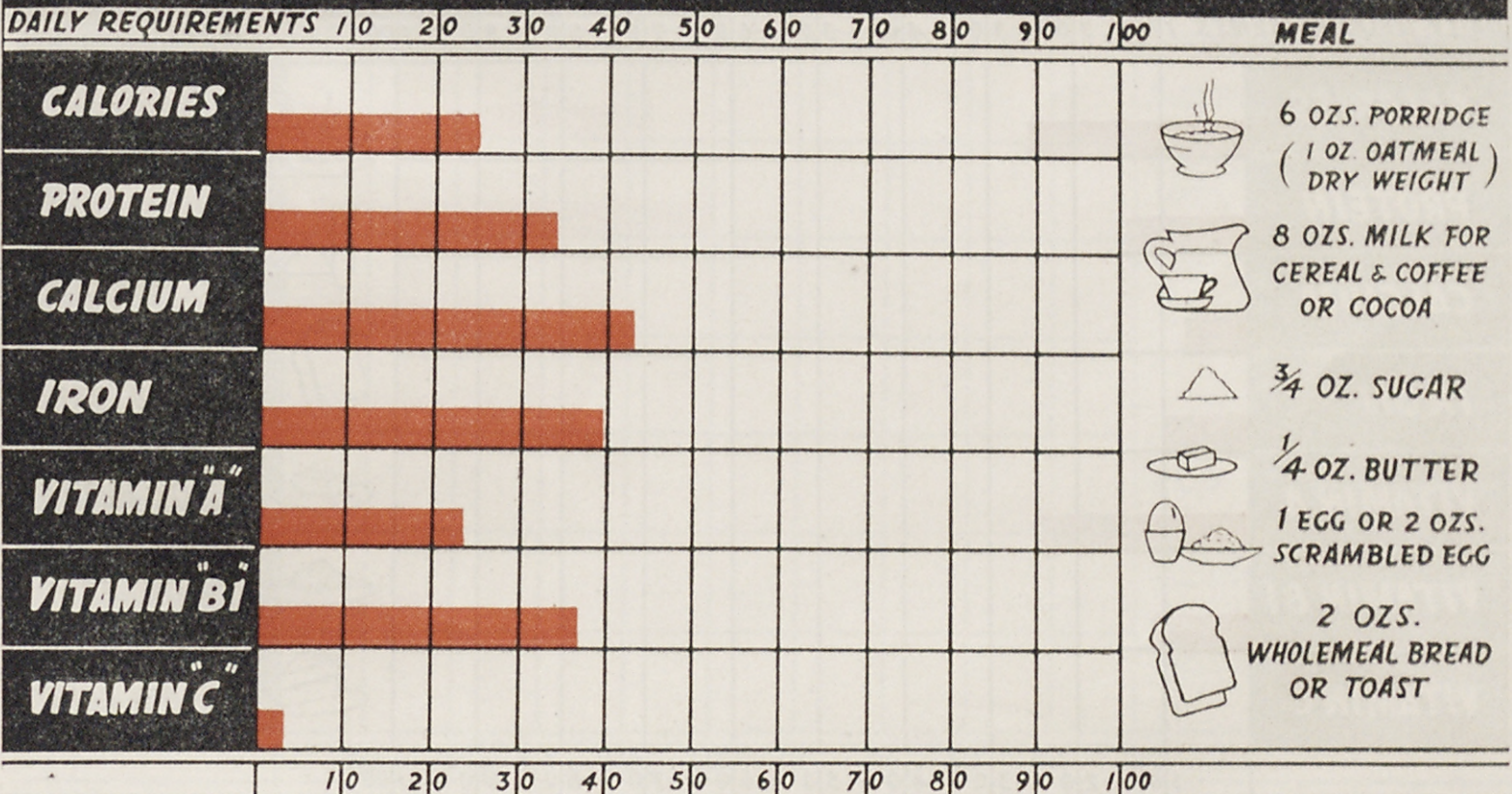
No. 2

BREAKFAST



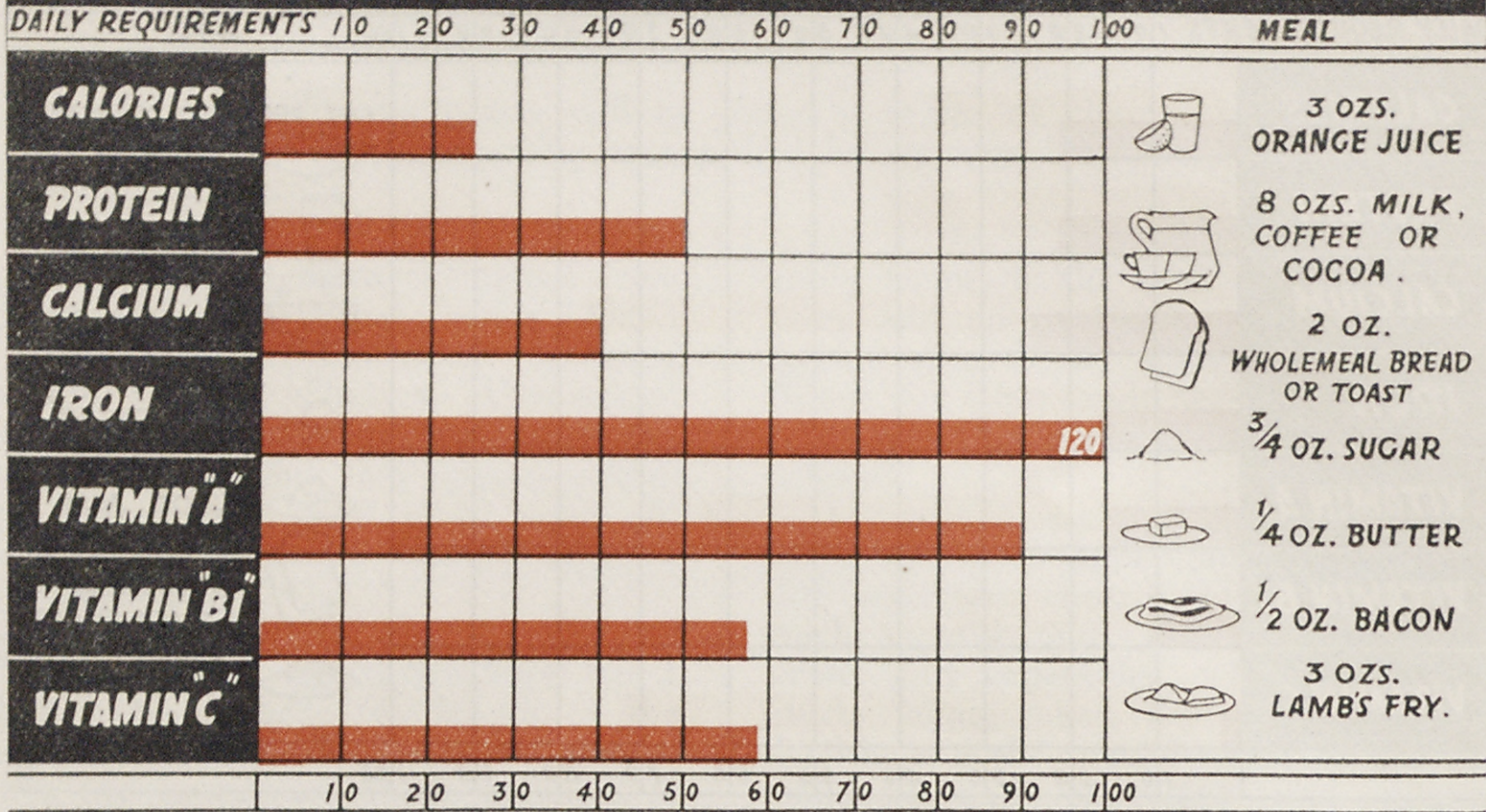
No. 3

BREAKFAST



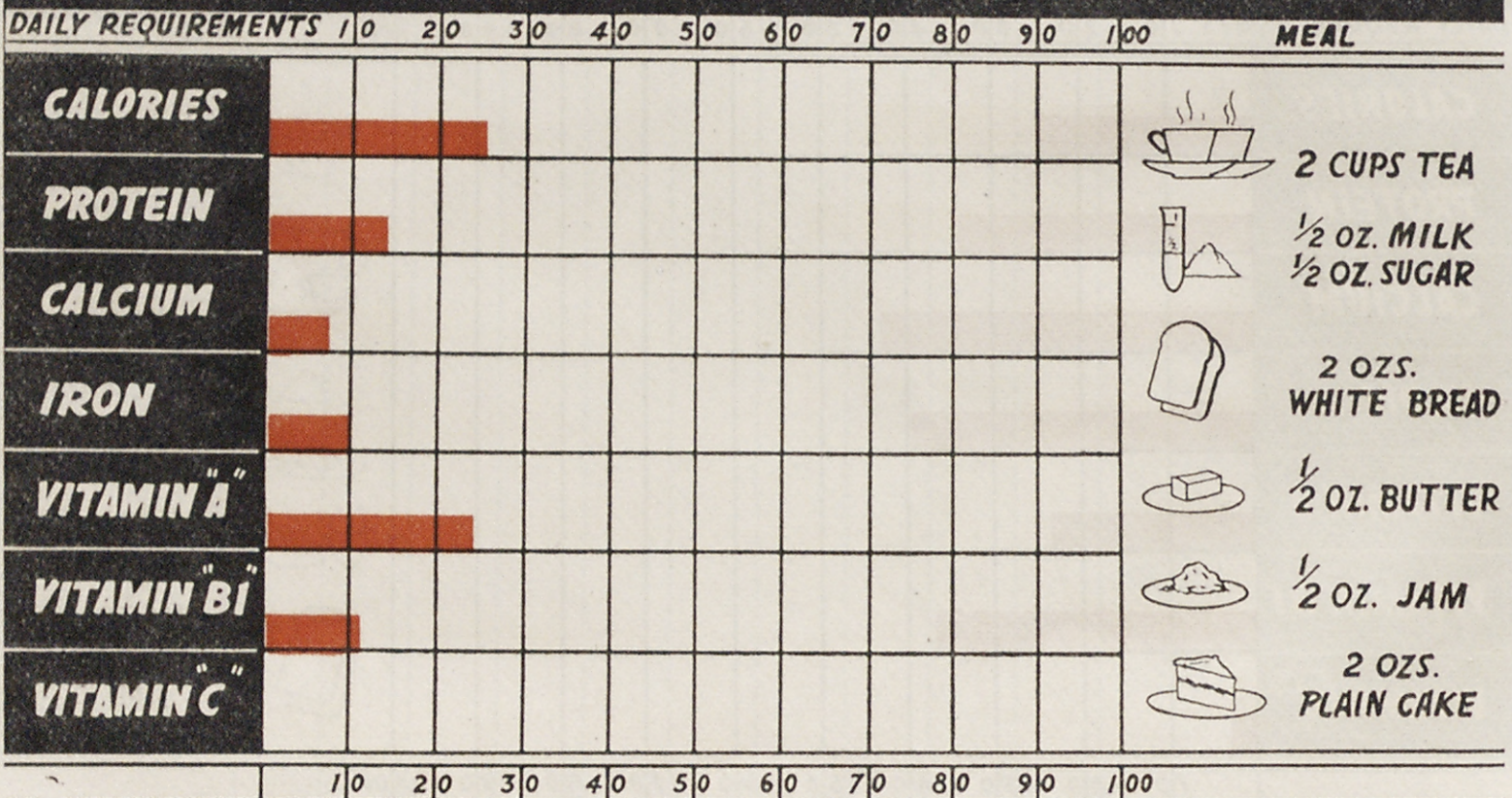
No. 4

BREAKFAST



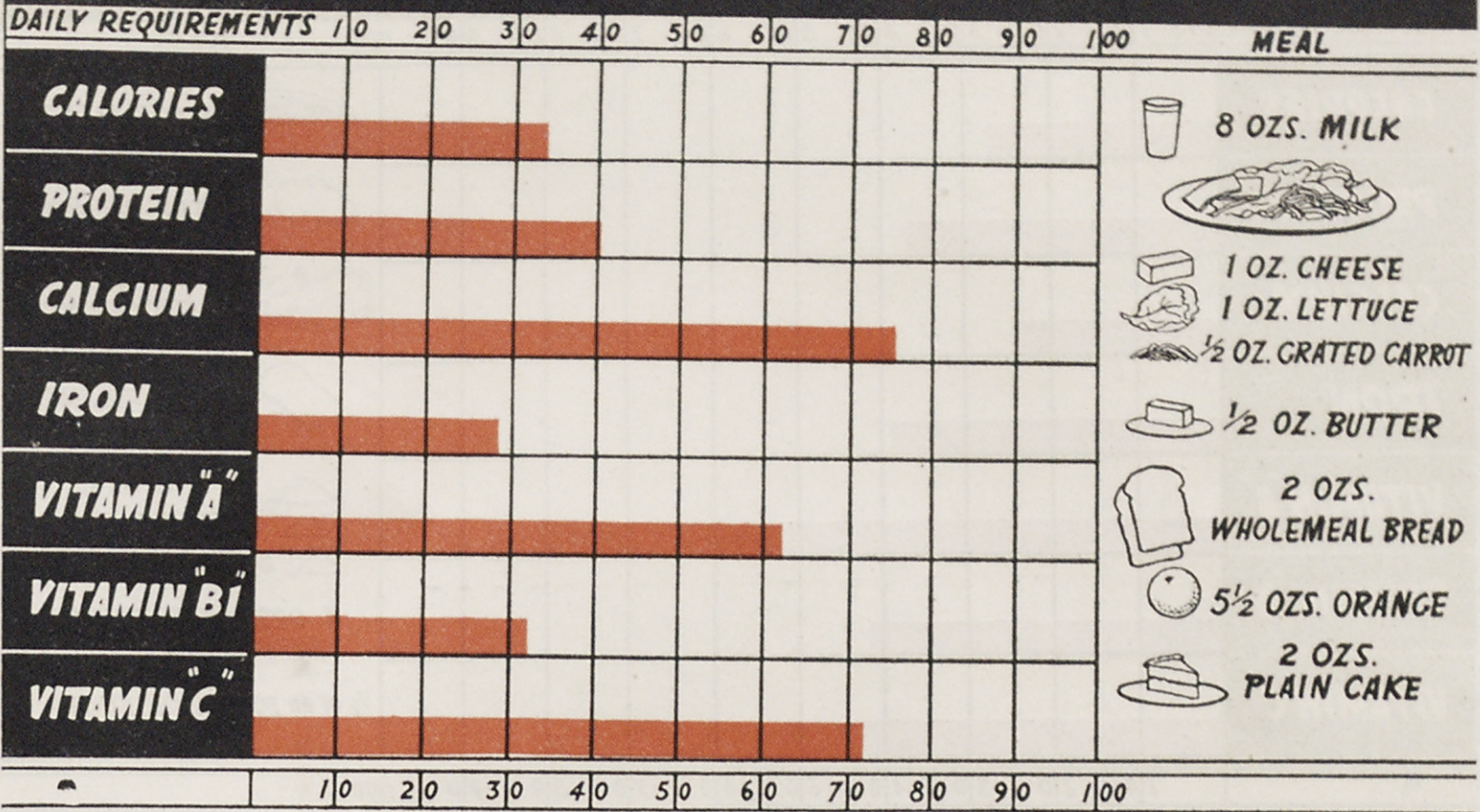
No. 1

LUNCH



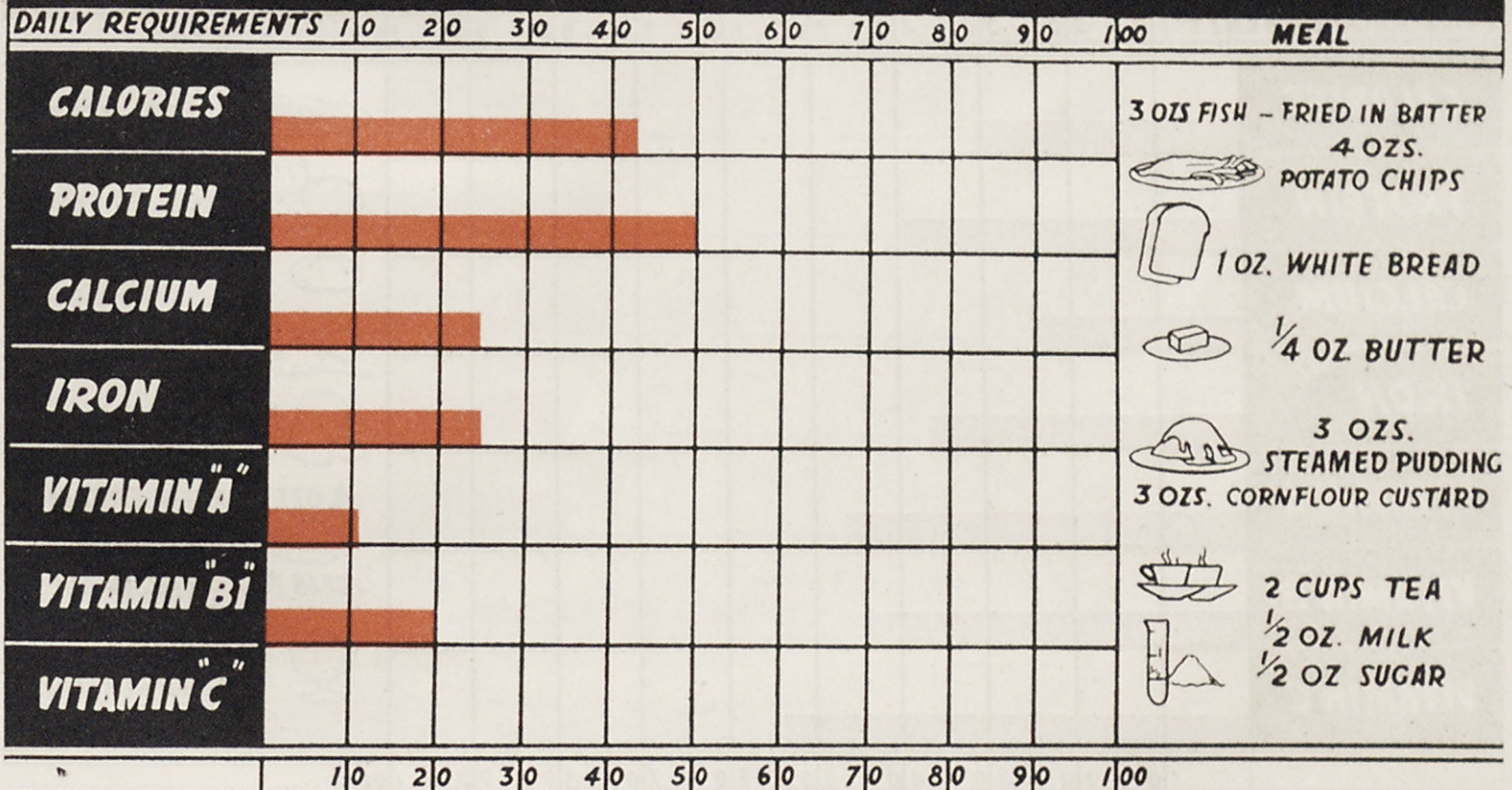
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LUNCH



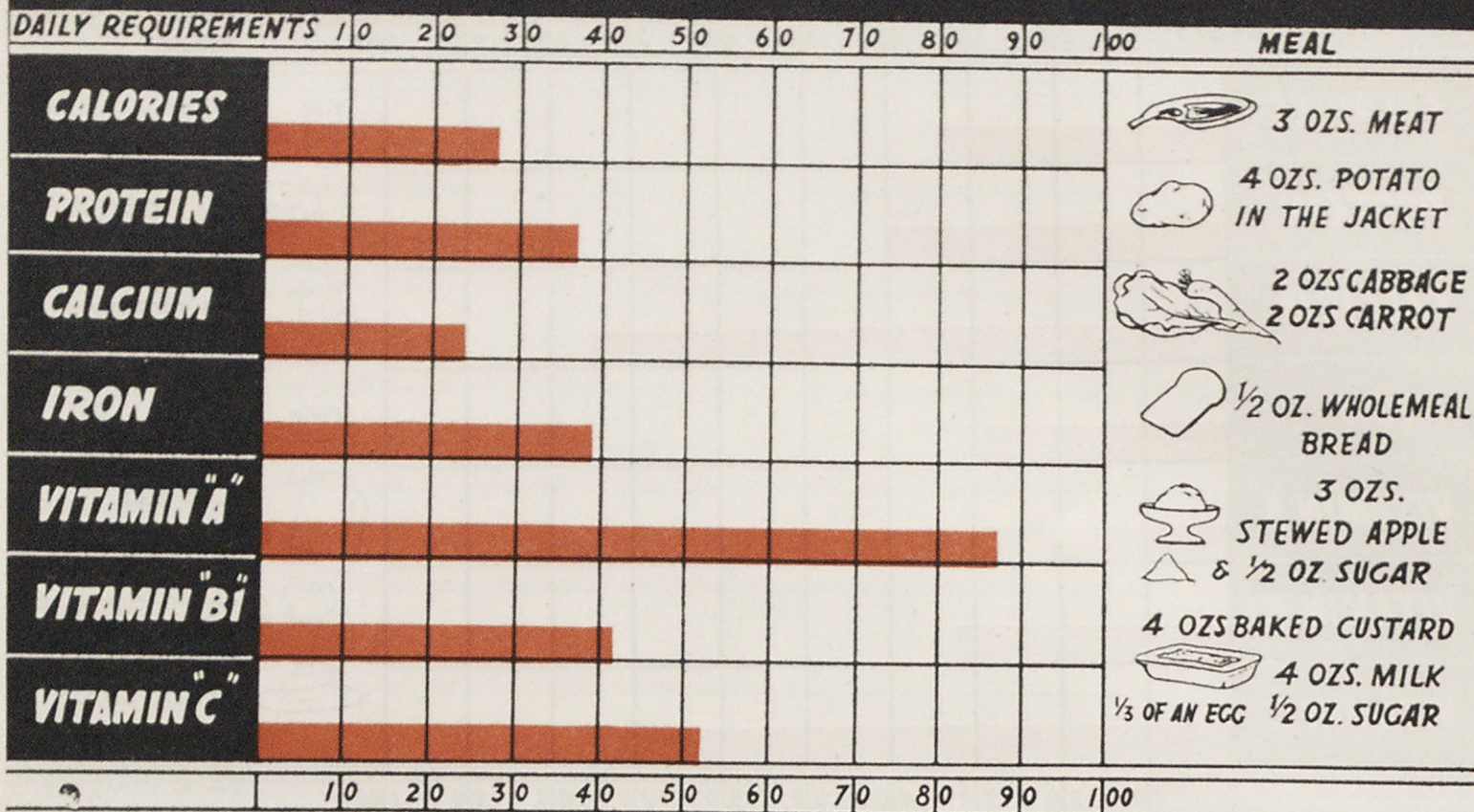
No. 1

DINNER



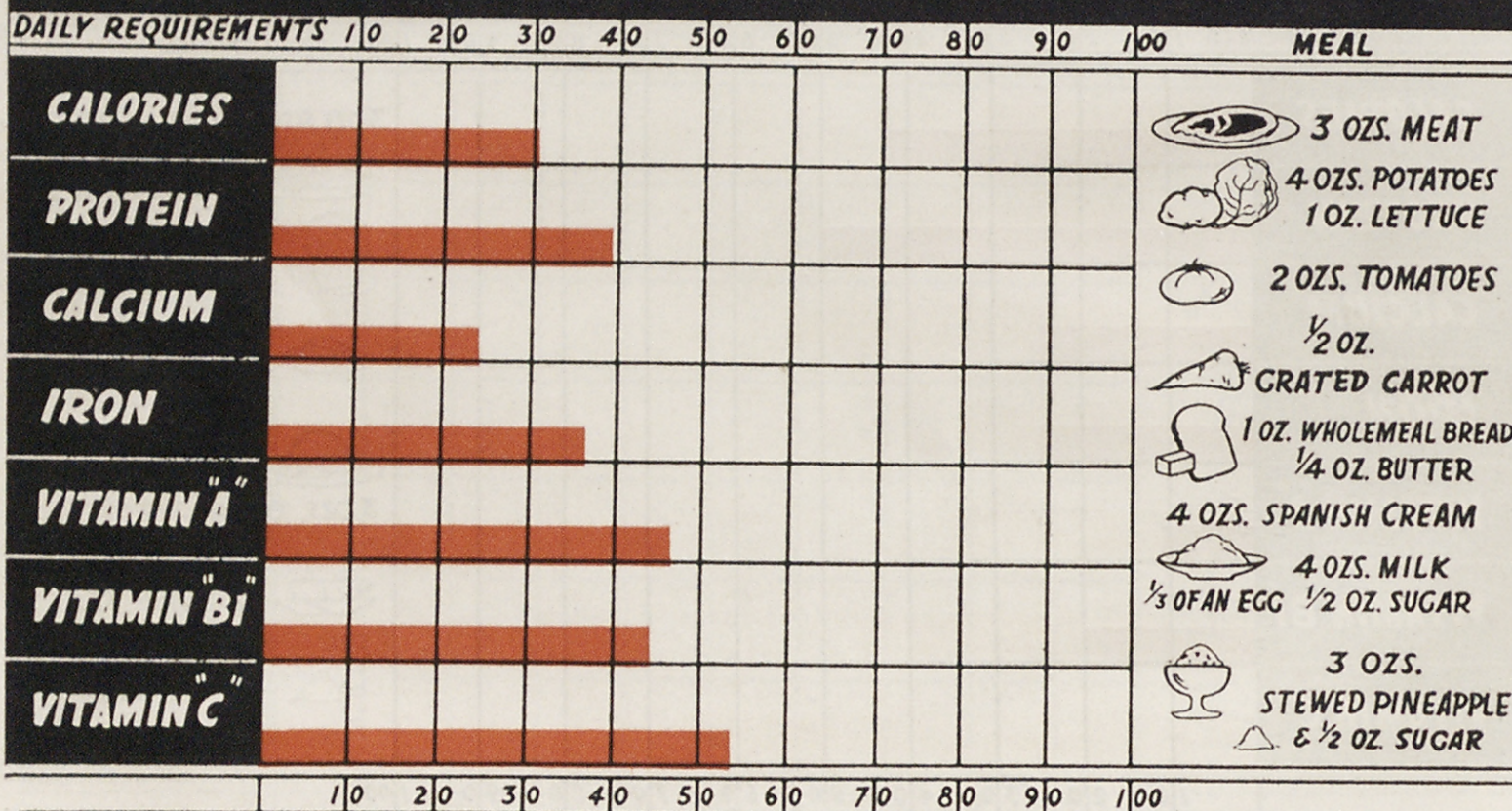
No.2

DINNER



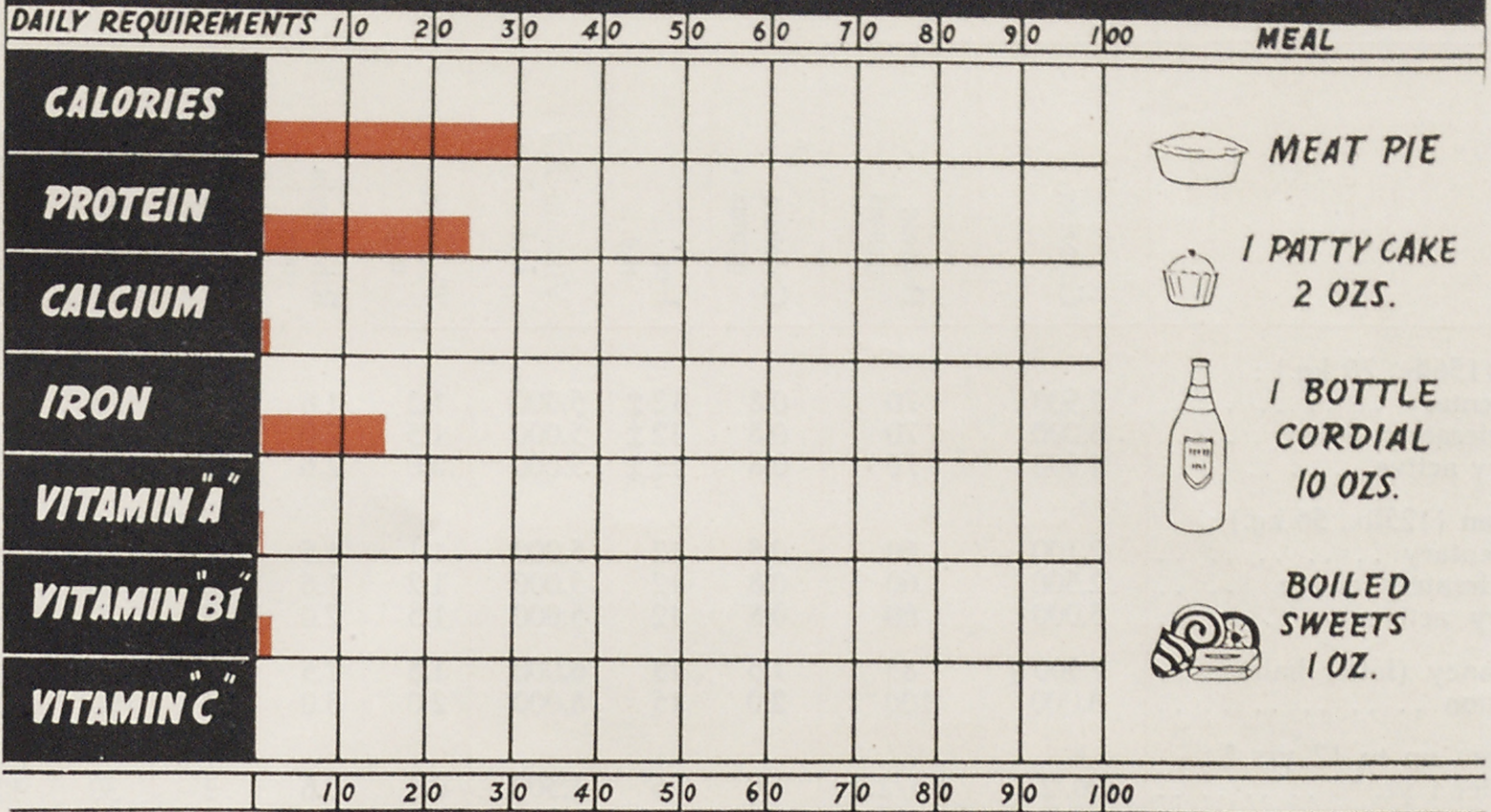
No.3

DINNER



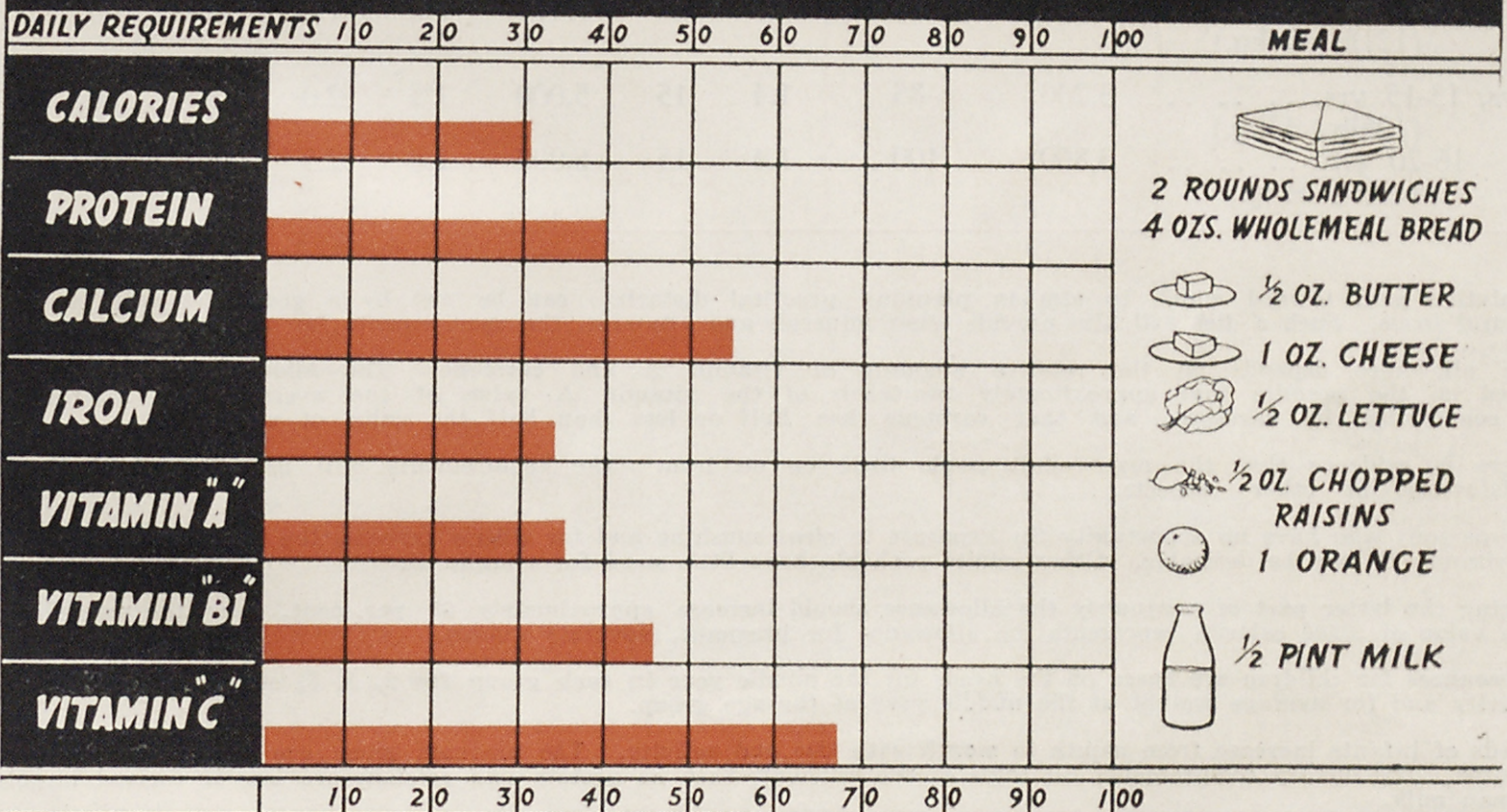
No. 1

SCHOOL LUNCH



No. 2

SCHOOL LUNCH



"RECOMMENDED DIETARY ALLOWANCES REVISED, 1945" *

Reprint and Circular Series, Number 122, August, 1945, National Research Council.

	Calories	Protein grams	Calcium grams	Iron mg.	Vitamin A † I.U.	Thiamin mg.	Riboflavin mg.	Niacin (Nicotinic Acid) mg.	Ascorbic Acid mg.	Vitamin D I.U.
Man (156lb., 70 kg.) :										
Sedentary	2,500	70	0.8	12 ‡	5,000	1.2	1.6	12	75	§
Moderately active	3,000	70	0.8	12 ‡	5,000	1.5	2.0	15	75	§
Very active	4,500	70	0.8	12 ‡	5,000	2.0	2.6	20	75	§
Woman (125lb., 56 kg.) :										
Sedentary	2,100	60	0.8	12	5,000	1.1	1.5	11	70	§
Moderately active	2,500	60	0.8	12	5,000	1.2	1.6	12	70	§
Very active	3,000	60	0.8	12	5,000	1.5	2.0	15	70	§
Pregnancy (latter half)	2,500 ¶	85	1.5	15	6,000	1.8	2.5	18	100	400-800
Lactation	3,000	100	2.0	15	8,000	2.0	3.0	20	150	400-800
Children up to 12 yrs. ¶ :										
Under 1 yr. **	100/2.2	3.5/2.2	1.0	6	1,500	0.4	0.6	4	30	400-800
	lb. (1 kg.)	lb. (1 kg.)								
1-3 yrs. (29lb., 13kg.)	1,200	40	1.0	7	2,000	0.6	0.9	6	35	400
4-6 yrs. (43lb., 19kg.)	1,600	50	1.0	8	2,500	0.8	1.2	8	50	400
7-9 yrs. (56lb., 25kg.)	2,000	60	1.0	10	3,500	1.0	1.5	10	60	400
10-12 yrs. (76lb., 34kg.)	2,500	70	1.2	12	4,500	1.2	1.8	12	75	400
Children over 12 yrs. ¶ :										
Girls, 13-15 yrs.	2,600	80	1.3	15	5,000	1.3	2.0	13	80	400
(110lb., 49kg.)										
16-20 yrs.	2,400	75	1.0	15	5,000	1.2	1.8	12	80	400
(121lb., 54kg.)										
Boys, 13-15 yrs.	3,200	85	1.4	15	5,000	1.5	2.0	15	90	400
(105lb., 47kg.)										
16-20 yrs.	3,800	100	1.4	15	6,000	1.8	2.5	18	100	400
143lb., 64kg.)										

* Tentative goal toward which to aim in planning practical dietaries; can be met by a good diet with a variety of natural foods. Such a diet will also provide other minerals and vitamins, the requirements for which are less well known.

† The allowance depends on the relative amounts of vitamin A and carotene. The allowances of the table are based on the premise that approximately two-thirds of the vitamin A value of the average diet in this country is contributed by carotene, and that carotene has half or less than half the value of vitamin A.

‡ There is evidence that the male adult needs little or no iron. The requirements will be provided if the diet is satisfactory in other respects.

§ For persons who have no opportunity for exposure to clear sunshine and for elderly persons, the ingestion of small amounts of vitamin D may be desirable. Other adults probably have little need for vitamin D.

¶ During the latter part of pregnancy the allowance should increase approximately 20 per cent. over the preceding level. The value of 2,500 calories represents the allowance for pregnant, sedentary women.

¶ Allowances for children are based on the needs for the middle year in each group (as 2, 5, 8, etc.), and are for moderate activity and for average weight at the middle year of the age group.

** Needs of infants increase from month to month with size and activity. The amounts given are for approximately 6 to 8 months. The dietary requirements for some of the nutrients such as protein and calcium are less if derived largely from human milk.



AUSTRALIAN RED CROSS SOCIETY

NATIONAL HEADQUARTERS

122-128 Flinders Street, Melbourne

1948