
Oregon Agricultural College Extension Service

O. D. CENTER
Director

Department of Domestic Science

Food for the Family

by

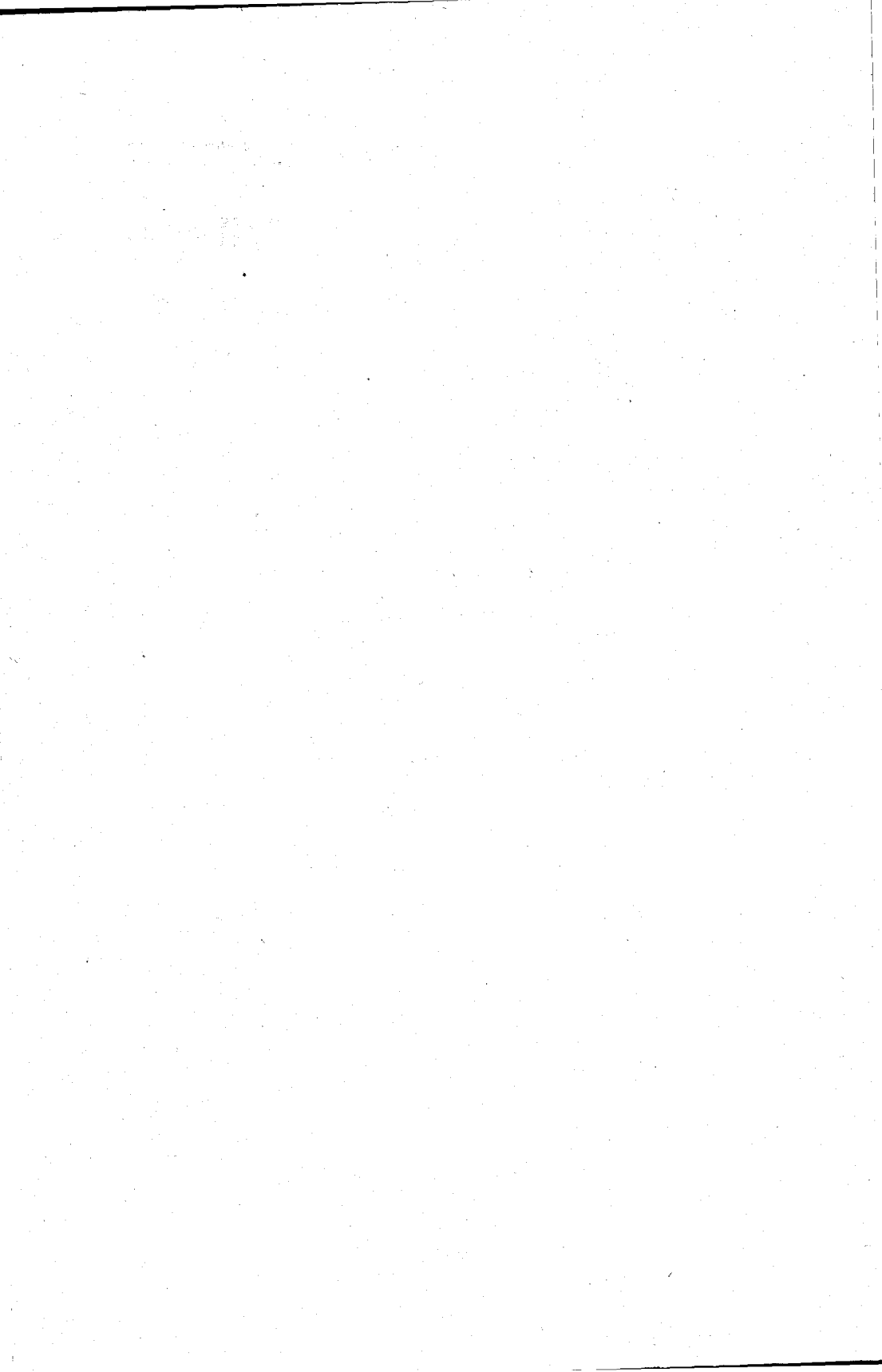
A. GRACE JOHNSON



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Food for the Family

"The prosperity of the nation depends upon the health and morals of its citizens, and the health and morals of a people depend mainly upon the food they eat, and the homes in which they live."

—Mrs. Ellen H. Richards.

INTRODUCTION

From earliest times man has spent much energy and money in securing food for the family. For years, men all over the world have been greatly concerned about the kind and amount of food to feed to livestock, in order to secure the most perfect animal and in return to receive the greatest profit. But little attention has ever been given to the proper feeding of men, women, and children in order to produce the most healthful and therefore the most efficient human beings, until the present war called the attention of the world to the fact that the outcome of this conflict rests primarily upon the food question. Before this crisis the attention we gave to human food was concerned with how much we could secure at the least expenditure of money, and how to prepare some new or unheard-of dish, rather than with a study of the needs of the family and the planning of the meals that would supply these needs, in the best possible manner with the greatest economy of time, money, and energy.

Like animals, we are the products of three factors; **inheritance, environment, and food supply.** We are hearing much these days about giving the child its dues from the standpoint of inheritance and environment; and the attention that is given to this subject should bear fruit by bringing forth a better race of human beings. But no matter how perfect the human being may be at birth, and no matter how carefully all phases of his environment are watched, we cannot expect to maintain this perfection if the proper foods are not supplied. Many persons have grown to maturity and have enjoyed a reasonable degree of health in spite of, rather than because of, the character of the food supply.

We as homemakers should remember that we are feeding a family, composed of persons of different ages, and not feeding ourselves alone. Our aim should be to make of each member of the family the most efficient human being possible, with strength and endurance for work. Much responsibility, therefore, rests upon the housewife whose duty it is to prepare the food for the family. She must not only know the needs of the family, but she must also know how to cook, what to cook, and what to omit in order to supply these needs properly. It is her business to know what foods contribute most to the well-being of her family, and she should make it her business to keep those who are well from becoming sick. In this bulletin the writer hopes to be of service to the housekeepers of the State; first, by showing how food supplies the various body needs; second, by calling attention to some important rules in the selection of foods to supply these needs; and third, by offering some practical suggestions for planning the meals for the family.

NEEDS OF THE BODY

The body requires food to supply the following needs:

1. **For Growth.** The body, especially during childhood, gains in weight and size.
2. **For Repair.** The body, as it carries on life processes, is constantly wearing away. Constant repair goes on as well as repair following illness or injury.
3. **For Work.** The body carries on internal processes, and performs muscular activity.
4. **For Warmth.** The body maintains a normal temperature of 98 degrees Fahrenheit.
5. **For Regulation.** No matter how well the preceding needs are supplied, the body still demands something to act as a balance wheel and keep the different processes (such as digestion, respiration, and circulation) going on in a normal, harmonious manner.

FUNCTIONS OF FOOD

Many definitions of food have been given, but when they are all sifted down to the last analysis we find that all of the functions of food are summarized under the three heads:

1. **To supply energy and heat.**
2. **To build tissue.**
3. **To regulate body processes.**

The human being might be compared to an automobile. If the automobile is made from the best materials and is properly cared for both as to fuel and general up-keep, it successfully mounts the hill, all of its intended powers at the instant command of the driver. But as soon as its machinery becomes clogged, or fuel is not supplied, its entire purpose is defeated. The human engine has one more power than the automobile—that of growth and self-repair after an accident. It can not do its work properly, however, it can not grow nor repair itself, and it can not keep itself in good running order, if the functions of foods are not understood and if the foods best suited to meet the needs of the body are not properly supplied. A poorly fed human engine is just as inefficient as a badly-cared-for and poorly supplied automobile. We have our proper feeding in our own hands.

CLASSIFICATION OF FOODS

Chemical examinations of foods have shown them to be composed of the same substances which make up the body, thus indicating that they furnish the materials that build and repair the body. These same experiments prove that when foods are burned they throw off heat and give energy just as fuel burned in an engine gives heat and mechanical power. Foods, therefore, have been grouped under five general heads according to the manner in which they meet the bodily needs.

FIVE GROUPS OF FOODS AND THERE USES

Name and Function	Where Found
1. Foods rich in protein	Meats—Moderately fat meats, fish, poultry
a. Builds bodily tissue (muscle, nerves, blood)	Meat substitutes — Milk, cheese, dried legumes (beans, peas, lentils, cowpeas, peanuts, vetch) and most nuts.
b. Gives heat and energy	
2. Foods rich in starch	
a. Furnish energy and heat	Cereals (rice, wheat, corn, oats, barley, rye), and potatoes, (white and sweet)
b. Furnish needed bulk	
c. May make fatty tissue	
3. Sugars	
a. Furnish energy and heat	Sugar — (Granulated, pulverized, brown, maple), molasses, sirup, honey and other sweets
b. May make fatty tissue	
c. Add flavor to diet	
4. Food rich in fat	
a. Furnish enery and heat with little bulk	Butter, cream, salt pork, bacon, lard, and its substitutes.
b. Build fatty tissue	
c. Add richness to diet	
d. Supply vitamins	
5. Vegetables and fruits	
a. Supply mineral substances needed in body building and regulation	All fruits All vegetables All greens (spinach, etc.)
b. Contains acids which give flavor and prevent constipation.	
c. Supply vitamins necessary to growth and health	
d. Give bulk	

Practically all foods contain more than one of the above five groups, and some, milk for example, contain all. This accounts for the fact that human milk is a perfect food for the baby. In each case the food is placed in the group of food stuffs of which it contains the largest amount.

Attention is called to the fact that protein not only builds tissue but also supplies energy and heat, as do fats, sugar, and starches. This does not mean, however, that meat, eggs, or other protein should be used to perform this function in the place of fats, starches, and sugars. On the contrary, it has been proved that the body is always in a better condition when these foods supply the energy and heat, and protein is furnished only in amounts large enough to supply the necessary nourishment to the body tissues. Nor should fats alone supply all the energy

and heat, for they are in a concentrated form and do not furnish the desired bulk which comes from the liberal use of fruits and vegetables. Some of each foodstuff must be fed to give the proper balance.

RULES FOR THE CHOICE OF FOODS

With the help of the preceding discussions of the needs of the body, functions of foods and classification of foods, we should be able to make our selection of foods wisely. The following rules may be of help in making a choice:

1. The foods of the day should be selected to meet the needs of the several members of the family.

The children should not eat of all the foods required by the adult members of the family. They require a large percentage of milk in the diet. The aged do not require the same amount of tissue-building food stuffs as do children and persons in active life, therefore they should be fed less proteins. Adults in active outdoor life require larger amounts of energy-producing foods and can make use of coarser materials than persons of sedentary habits.

2. Since milk and eggs perform the same function as meat in the body, they should replace a part of the meat when they are used liberally. Children, even after the first year, should be fed a quart of milk a day, while adults should use it in smaller amounts, always remembering that it is a real food and not merely a beverage. Its use is necessary because of its lime content. Eggs are important not only because of their muscle-building property, but also on account of the large amount of iron which they contain. At times of the year when their cost makes them prohibitive, we must supply other foods rich in this important mineral.

3. Vegetables and fruits should be used liberally. They furnish to the diet the necessary bulk to prevent constipation. They also aid digestion by stimulating the flow of the digestive juices. Spinach is often called "the broom of the stomach," and we might give this definition to most all the bulky fruits and vegetables, for they perform the same function in varying degrees.

4. Water is a Food. It should not only be used freely as such, but foods containing a large percentage of water should form a part of every diet. The internal bath is of quite as much importance as the external one. None of the body processes can be carried on properly with an insufficient supply of water. Fruits, vegetables, and milk contain a large percentage of water.

5. Sweets, while a very desirable form of food, should be used with caution. They supply heat and energy, but do not build muscle, and are usually eaten in such concentrated form that excessive amounts are often consumed. They should be used in connection with other foods as a part of a meal. When so fed, they are not likely to be used in amounts large enough to over-tax the digestive organs or irritate the intestinal tract, nor will they destroy the appetite for other foods which should be eaten.

6. The greater part of our foods should be simply prepared and easily digested. As far as possible, select foods of a non-stimulating character. The highly flavored ones are of use only in keeping the diet from becoming monotonous, and they should be used with great discretion, furnishing only a very small part of any one meal.

7. Foods rich in minerals should form a conspicuous part of each day's diet. All of the foregoing rules may be observed and still we may not be supplied with the necessary minerals to build the bony tissue of the body, nor to regulate the all-important body processes. Poor teeth; lack of color, which often shows anaemia, or lack of good red blood; constipation; pimples, and general absence of bodily tone, are commonly the result of foods selected with no attention to the minerals which they contain.

IMPORTANCE OF MINERAL MATTER IN THE DIET

No discussion of food for the family would be quite complete without special mention of certain foods rich in minerals. Since mineral matter occurs in all digestive juices and enters into the composition of all tissues, it is of great importance. The bones of the body are largely lime; the red color of the blood, as well as its power to carry oxygen to the cells, is due to iron; the cells could not reproduce nor develop without certain materials; we could not convert foods into body tissue or heat and energy, without the phosphorus found in each cell. In fact, none of the work of the body could be carried on without this all-important foodstuff, mineral matter. It is therefore deemed wise to include lists of foods rich in these three most important minerals, and to advocate liberal use of the different ones listed.

Iron	Phosphorus	Lime
Lima beans (dried)	Peas (dried)	Milk
Navy beans	Navy beans	Eggs
Peas (dried)	Egg yolk	Beans
Entire wheat flour	Lean beef	Peas
Spinach	Milk	Oatmeal
Lean beef	Cheese	Walnuts
Eggs	Entire wheat flour	Peanuts
Oatmeal	Buckwheat flour	Parsnips
Raisins	Oatmeal	Turnips
Prunes	Lentils	Cauliflower
String beans	Peanuts	Carrots
Potatoes	Almonds	Oranges
Corn meal	Walnuts	Prunes
Cabbage	Prunes	Celery
Sweet corn	Rice	Spinach
Dandelion greens	Parsnips	
Walnuts	Potatoes	
Peanuts	Turnips	
Grapes	Barley	
Honey	Cocoa	
Lentils	Dried sweet corn	
	Fish	
	Dried figs	
	Gooseberries	

The following foods should not be left out of the diet, for they are rich in less important minerals: lentils, celery, cauliflower, endive, leeks, rutabagas, figs, cocoa, lemons, limes, apricots, cherries, apples, and rhubarb.

PLANNING OF MEALS

No one scheme can be given which, if followed, will always give the desired result, a balanced meal. The remaining pages contain suggestions for meal planning, however, which will insure greater accuracy in that direction and at the same time supply considerable information concerning desired combinations:

1. Select foods because they contribute most to the well-being of the family, rather than because they are at hand, are cheap, are liked by the family, or require the least effort.

2. Take care of children first. Set aside money to give them milk.

3. Be sure to use some of each of the five food stuffs in each meal.

4. Do not serve the same food in different forms at the same meal, such as corn soup and corn bread.

5. Include in each meal milk and easily digested foods for the children and aged, as well as more hearty foods for the adult members of the family.

6. Serve heavy soups (such as cream soups), or heavy desserts (such as apple pie), with a light main course. Light soups and light desserts would be better suited to roast beef than the ones mentioned above.

7. Variety is of great importance in meal planning, but should be secured through methods of cooking and serving rather than by the use of a great number of dishes at the same meal. One tires of boiled potatoes every day in the week, but if potatoes are served in a different form each day they are acceptable.

8. Since flavor stimulates the flow of the digestive juices, we should select foods of contrasting flavors in the same meal.

9. Avoid using too much building material in one meal. Roast beef and egg salad should not be served in the same meal.

10. Avoid using too much fuel material in one meal. Potatoes and rice should not be used in the same meal.

Note. During present war times great care must be taken in the substitution of foods which conserve certain staples much needed by our soldiers. We must of necessity consume larger amounts of perishables and accustom ourselves to many of the coarser products, thus releasing those foods which can best be used by the army and our allies. It must be remembered, however, that the term "conservation" is not synonymous with "starvation," and that there is no desire to reduce the food below a point which will give the greatest efficiency. Never has it been more important that the world be well fed than now; but in order to be well fed and make the total food supply adequate we must eat wisely. Wisdom in diet will be gained only through a study of body needs and of how to supply these needs in accordance with present food conservation demands.

It must also be borne in mind that conservation does not necessarily mean a reduction in cost. Many of the substitutions which we are called upon to make will entail a greater expense than those foods which we have used in the past. The object of our present food conservation work is to use wisely and without waste those foods which will keep us well and efficient, and at the same time take the place of the staples needed by our army and our allies.

SCHEMES TO AID IN PLANNING OF WELL-BALANCED MEALS

The suggested meal plans should be used in the light of the foregoing discussions, rules, and suggestions. These plans show the dishes suited to the three meal of the day, and the charts show different groups of foods from which to select according to these plans. Not all foods have been tabulated; therefore, the housewife may add to the various lists from time to time.

PLANS FOR MEALS

Breakfast Plan

1. Fruit in some form.
2. Cereal.
3. Some muscle-building dish, such as eggs, fish, or small amount of meat, or meat substitutes.
4. Some form of bread.
5. A hot drink.

Luncheon or Supper Plan

1. A hot dish such as meat; a hot meat substitute dish, such as macaroni and cheese; dried legumes, or a cold meat; or a heavy salad; or a cream soup.
2. Potatoes and bread.
3. Some form of dessert.
4. A beverage if desired.

Dinner Plan

1. A light soup if desired.
2. Meat, or meat substitute.
3. Potatoes or some other starchy vegetable and some flavor vegetable. Bread.
4. A relish or flavor food, which may be served in the form of a salad.
5. Dessert.
6. Beverage if desired.

CEREALS

Oatmeal
 Rolled oats
 Cream of Wheat
 Farina
 Rice
 Rye meal
 Barley Meal
 Malted Breakfast foods
 Pettijohns
 Cracked wheat
 Corn meal mush
 Shredded wheat
 Corn Flakes
 Corn Puffs
 Grape Nuts and other
 prepared foods
 Hominy

BREAKFAST FRUITS**Fresh**

Grape fruit
 Oranges
 Grapes
 Berries of all kinds
 Apples
 Plums
 Pineapple, sliced

Cooked

Baked apples
 Baked pears
 Apple sauce

Dried

Stewed prunes
 Stewed peaches
 Stewed apricots
 Stewed pears
 Stewed figs
 Stewed raisins
 Stewed dates

Canned

All fruits to which a
 little sugar has been
 added.

BREADS**Yeast Breads**

White
 Graham
 Whole wheat
 Rolled oats
 Flour and corn meal
 Vetch
 Rye
 Barley
 Rice
 Buckwheat
 Potato
 Rolls

Quick Bread

Baking powder biscuit
 Brown bread
 Muffins
 Gems
 Griddle cakes
 Bran
 Vetch oatmeal
 Shorts

STARCHY**VEGETABLES**

Potatoes
 White
 Sweet
 Parsnips
 Cereals used as
 Vegetables
 Macaroni
 Rice
 Hominy
 Corn meal

FLAVOR**VEGETABLES**

(Rich in minerals)

Onions
 Tomatoes
 Carrots
 Beets
 Spinach
 Kale
 Celery
 Asparagus
 Rutabagas
 Turnips
 Cabbage
 Cauliflower
 Peas (fresh)
 String beans
 Squash

RELISHES

Pickles
 Sweet and sour
 Olives
 Jellies
 Preserves
 Acid fruit sauces
 Rhubarb
 Apple
 Gooseberry
 Cranberry
 Berries
 Cherries
 Vegetables (fresh)
 Lettuce
 Onions
 Tomatoes
 Radishes
 Cabbage
 Celery
 Parsley

SOUPS

Consomme
 Bouillon
 Vegetable
 Pea
 Noodle
 Cheese
 Egg
 Peanut
 Tomato
 Onion
 Celery

DESSERTS**Light**

Fruit ices
 Fruits
 Fresh, baked, stewed
 Fruit puddings
 Gelatin, bread, rice, tapioca

Medium

Plain cakes
 Custards
 Sherbets
 Plain ice cream
 Fruit pies
 Bread pudding

Heavy

Rich pies
 Mince, Chocolate, Custard, Cream
 Rich cakes
 Rich puddings
 Plum, Suet, etc.

MEATS AND MEAT SUBSTITUTES**Meats**

Flesh of animals, including fish
 and fowls served in all ways.

Meat Substitutes

Macaroni and cheese
 Rice and cheese
 Creamed vegetables with cheese
 Cheese souffle
 Cottage cheese
 Other cheese combinations
 Baked beans
 Bean loaf
 Vetch loaf
 Dried legumes of any kind
 Eggs served in all ways
 Milk soups
 Nuts.

Note. The making of any heavy dessert, such as pies and rich cakes, is very much discouraged in war times. The use of icings should be discontinued. The conservation of sugar will be increased and general health improved by a disuse of such desserts. The substitution of honey for sugar in non-acid desserts will be pleasing and in some communities will reduce food costs.

It is very necessary to use every available material as a white flour substitute for cooking during the present crisis.

Deep fat frying should be discontinued. Butter and lard need to be conserved in every possible way. Vegetable oils or combinations of them with suet will make splendid cooking fats. Butter should not be denied children for it contains substances which promote growth.

SUGGESTED MENUS: The following meals for three days are placed here in the hope that they will show how to plan so that the main part of each meal may be suited to a family consisting of children and adults. The menus are planned according to the scheme suggested in the foregoing table and rules.

	FIRST DAY		SECOND DAY		THIRD DAY	
Breakfast—	Food—	For Whom—	Food—	For Whom	Food—	For Whom—
Fruit	Oranges	All	(Juice only for Stewed prunes	All	Baked apples	All
Cereal		very small chil-	Rye Flakes	All	Malted breakfast food	
Muscle-building food		dren between (with top milk)			(with top milk)	Children
Bread	Corn meal mush	All	Creamed Codfish	All	Fried mush	Adults
Beverages	(with top milk	Children	Pancakes	Adults	Soft cooked eggs	Children
	Eggs, poached, fried	Adults	Toast	Children	Corn muffins	Adults
	Bread and butter	All	Coffee	Adults	Toast	Children
	Coffee	Adults	Milk	Children	Coffee	Adults
			Chicken	Adults and older children		
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Dinner—	Vegetable soup	All but baby			Baked fish	All
Soup	Scalloped rice with cheese	Adults and older children	Steamed rice	All	Baked potatoes	All
Meat or meat substitute	Rice with poached eggs		Spinach	All	Stewed tomatoes	All but baby
Starchy vegetable	(In rice dish)	Younger children	Jelly	All	Green onions	Adults and older children
Flavor vegetable	String beans	Adults and older children	Rye bread and butter	Children	Bread and butter	All
Relish			Baked custard	Adults	Apple cake	Adults
Bread	Fruit butter	Adults	Prune loaf	Children	Apple sauce	Children
Dessert	Bread and butter	All	Milk		Milk	Children
Beverage	Stewed fruit; cookies	All				
	Milk	For children				
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Supper or Luncheon—	Baked hash	Adults and older children	Cream of pea soup	All	Bean loaf	Adults and older children
Soup or other hot dish			Cheese sandwich	All		
Starchy vegetable	Creamed carrots	All	Celery	All	Creamed potatoes	Younger children
Bread	Graham bread, butter	All	Baked apples	All	Brown bread and butter	All but baby
Dessert	Stewed fruit	All	Milk	All	Toast	Baby
Beverage	Cocoa	Adults			Prune sauce	All
	Milk	Children			Sponge cake	All
					Milk	All

FOODS FOR OLD PEOPLE

As people grow older there are unavoidable changes in the circulatory and digestive organs of the body. Absorption of digested foods is less active, there is no building of muscle as in children, there is usually less bodily activity, and at the same time the power to eliminate body waste is much lessened. For the above reasons the food of the aged should be restricted.

No rules can be given which can be followed in every case, for the reason that the changes incident to old age may vary greatly in different individuals. The following suggestions, however, should be the guiding principles in feeding the aged.

1. Diminish the amount of food eaten.
2. Use food in small quantities at regular intervals.
3. All food should be simple and easy of digestion.
4. The amount of muscle-building foods should be very materially decreased.

FOODS FOR CHILDREN

A useful body and an alert mind are largely the factors of the problem of proper feeding. The mother who wants to make the best citizen out of her child should feed it properly. In order to do this she should know what kind of food to feed, how much to feed, and how often to feed. Children need more food in proportion to their size than adults, and it is therefore wise to give more than three meals a day; on the other hand, food must not be given so often that the stomach will have no time to rest. This can be avoided if children are fed at the same hour every day. The digestive organs of children are not strong enough to care for the hearty foods of adults; therefore, their food should not be so strong.

Milk is an important form of food in the child's diet up to the tenth or twelfth year and should be supplied at any cost. A quart a day should be provided for each child if it is at all possible.

It is important that children be taught the chewing habit. For this purpose crusts of bread and crisp crackers are introduced when the child has several teeth. Cereals, preferably from whole grains, should be a part of every day's food. Long cooking (three or four hours) is necessary for breakfast cereals. They should be served with top milk and no sugar. The drinking of a liberal amount of water is necessary to the health of the child. Several glasses a day should be taken, preferably between meals, for if water is taken during meals, the food is "washed down" before being sufficiently chewed. Candy, always the purest, or loaf sugar, may be fed sparingly at meals, but never between meals, for that spoils the natural appetite.

Soft-cooked (never fried) eggs should always be a part of the child's diet. Serving eggs in custards or soups gives variety. One egg a day is sufficient for the child. Since fruits and fresh vegetables are rich in minerals, so important in bone- and muscle-building, they should be fed to children. For the younger children, begin with the mild-flavored vegetables, well cooked and rubbed through a sieve. Orange juice and

prune pulp are the most desirable fruits. Any mild fresh fruit in perfect condition may be used for the older children. The sweet fruits should be cooked and served without sugar.

Provide plenty of bread and butter. The milk and eggs given to younger children take the place of some meat. After the age of eight years children may be fed more liberally of meats with little fat, such as broiled beefsteak, stewed chicken, baked haddock, halibut or cod, roast beef or mutton.

The following foods should be avoided with children until after the tenth year: Ham, bacon, sausage, pork, fried food of any kind, hot bread, fresh rolls, pastry, all rich cakes, sirups, preserves, nuts, tea, coffee, lemonade, soda water, raw vegetables such as cucumbers, onions, radishes, celery, and the following cooked vegetables—corn, cabbage, and lima beans.

We must remember that learning to eat the right kind of food is one of the most important parts of a child's education. The giving of this education rests upon the parents, who must therefore train the child to accept the fact that his food is different in kind from that of adults, and that, though he eats at the family table, he cannot taste everything that is offered as food for the family. All bad food habits are due to the lack of knowledge or indulgence of the parents and not to the inherited tastes of the child.

Publications which are of value in connection with this bulletin, may be had free from the Oregon Agricultural College, Corvallis, Oregon.

Extension Bulletin 216. Substitutes for Meat

Extension Bulletin 217. War Breads

Extension Bulletin 218. The Use of Dried Fruits and Vegetables

College Bulletin 222. School Lunches

U. S. Department of Agriculture, Washington, D. C.

Farmers Bulletin No. 565. Corn Meal as a Food and Ways of Using It

Farmers Bulletin No. 653. Honey and Its Uses in the Home

Farmers Bulletin No. 712. School Lunches

Farmers Bulletin No. 717. Food for Young Children

Farmers Bulletin No. 808. What the Body Needs, How to Select Foods 1

Farmers Bulletin No. 817. Cereal Foods, How to Select Foods 2

Farmers Bulletin No. 824. Foods Rich in Protein, How to Select Foods 3

Farmers Bulletin No. 871. Fresh Fruits and Vegetables, as Conservers of Other Staple Foods.

