

Home Course In Domestic Science

II.—Selection of Food.

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THE wise selection of food, to suit the individual needs of each member of the family, requires the consideration of at least three questions:

1. Is the food nutritious?
2. Is the food comparatively easy to digest?
3. Is the food reasonable in cost?

The subject is so important that it should engage the heart and head as well as the hand of the woman who presides over a family. It is sufficiently important, too, to demand some thought from every individual who values his good health and general well being. It has been frequently stated by physicians and philanthropists that three-fourths of the sickness in the world, one-half the drunkenness and a large percentage of the crime have had their beginning and their cause in poor food and bad cooking. This being the case, can there be any topic of greater value for our lesson this week than the very old question, "What shall we eat?"

What Food Is.

In order to fulfill its office food must either build and repair tissue or it must give heat and energy to the body, and it should do these things at as little unnecessary expense of physical energy as possible. According to its function all kinds of food are divided into five classes. These are the tissue building foods, the fat foods, starches and sugars, mineral matter and water. Each one of these classes has its particular duty to perform for the body and therefore has its special place on the daily bill of fare. Any food material, no matter how simple and well known or how rare, contains two or more of these five classes. A few of the standard materials contain all five classes.

For instance, what do we find in a loaf of bread? A great deal of starch and some gluten from the flour, a little fat from the flour and more if it has been added in the making, some mineral matter and about 35 per cent of water. Meat also has fat, mineral matter and a substance found in the lean part which is called protoid and which is the tissue building property of the meat. The elements which compose these different classes of food correspond with the elements in the body; hence their necessity. It is chiefly from the food which we eat that we obtain those elements which are necessary for the support of life and the functions of the body.

The Duty of the Five Classes.

Now that we have seen what an important place in life our daily food occupies let us endeavor to learn to which class or classes certain commonly used foods belong. The tissue building foods, or the protoid foods, are not numerous, but so important are they that life cannot be sustained for any length of time without them. This class of food has been given the name protoid, a word meaning "first" or "pre-eminent," because it alone of the five classes is able to build tissue and to repair the daily waste of the cells of the body. The protoids alone contain nitrogen, and nitrogen is one of the elements necessary to life. The following table classifies some of our common foods according to their principal constituents, also gives their source and use in the body:

SOURCE AND USE OF THE CHIEF FOOD CONSTITUENTS.

| Class | Source | Use in the Body |
|---------------|---------------------|---------------------------|
| PROTEIDS | Meats | Build Tissues |
| | Fish | Build Tissues |
| | Eggs | Build Tissues |
| | Milk | Build Tissues |
| | Cheese | Build Tissues |
| FATS | Meats | Give Heat and Energy |
| | Fish | Give Heat and Energy |
| | Eggs | Give Heat and Energy |
| | Milk | Give Heat and Energy |
| | Cheese | Give Heat and Energy |
| CARBOHYDRATES | Sugars | Give Heat and Energy |
| | Starch | Give Heat and Energy |
| | Potatoes | Give Heat and Energy |
| | Flour | Give Heat and Energy |
| | Grains | Give Heat and Energy |
| MINERAL SALTS | Fruit Acids | Useful in the Blood |
| | Vegetables | Useful in the Blood |
| | In All Vegetables | Carries Food to the Blood |
| | In All Animal Foods | Carries Off Waste |
| | In All Animal Foods | Solvent For Food |

The sugars and starches have been grouped under one name, carbohydrates, because both these foods contain a considerable amount of carbon, also two gases, hydrogen and oxygen, which are always present in the right proportion to form water. The special

function of this class of food is to give energy. Before energy is evolved there must be heat, but as heat producers the carbohydrates are not as valuable as fats. The latter are more than three-fourths carbon. This fact at once proves that fat in some form is the food to be eaten when heat is required. It is the food which appeals to the appetite more strongly in winter than in summer and is liked better in cold climates than in warm. If it were impossible to have both fat and sugar in the diet no great harm would result to the body for some time, because both contain the same elements and both perform the same function—namely, give heat and energy. Not so with the protoids, however, because, being the only class which contains nitrogen, no other can substitute for them.

Danger in Overeating.

After learning of the importance of protoid foods the first conclusion may be that they should form the greater part of the diet and should largely compose the daily bill of fare. This is a common mistake and one to be carefully avoided. The intake of food should not be greater than the needs of the body and to preserve its normal equilibrium. Too much food of any kind necessitates too much work on the organs of digestion and elimination and produces certain irregularities of the body functions. Too much protoid—that is, too liberal an allowance of meat, fish, eggs, cheese, etc., in the meals will clog the system with urea, throw too much work on the kidneys in their effort to carry off this final product in the digestion of protoid. Too much protoid in the diet induces rheumatism and similar disorders. When too much fat, or carbohydrate, is eaten it is stored up in the body as fat, and the individual finds himself putting on adipose tissue to perhaps an uncomfortable degree. There is more danger in this country from overeating than there is from lack of food, just as the engine is likely to wear out more quickly because of too hard firing than from lack of fuel.

The amount of food required to properly develop the body and keep it in normal condition depends on different conditions, such as the occupation of the individual, the age of the individual, sex, climate and personal idiosyncrasies.

The man or woman engaged in hard physical work requires more of the foods which repair tissues than does the person living a sedentary life. The amount of fresh air in which the individual lives will also determine largely the rapidly with which food will be oxidized in the body. For instance, the farmer, working in the fields, will require more nourishing foods than the man who sits in his office all day. The farmer's lungs are constantly filled with fresh air; his blood is filled with oxygen. He is performing work which requires much physical energy; hence his food is rapidly burned in his body in order to yield the necessary energy, and he is hungry. He has a good appetite for hearty food, and he digests it with ease. The man of sedentary habits finds his stomach rebelling and himself in general discomfort if he attempts to follow the example of the farmer for any length of time.

How Much to Eat.

Occasionally we hear the question, "How much should we eat?" Yet, as a rule, the average person does not trouble himself very much on that score and eats what a pampered appetite demands rather than the amount he actually needs. Dietary specialists have found from many experiments that an average man doing average work requires each day about four and a half ounces of protoid, two ounces of fat and sixteen ounces of carbohydrate. An average woman doing the work of an average housekeeper requires a little less, probably about three ounces of protoid, one and a half ounces of fat and twelve ounces of carbohydrate. The boy fourteen to sixteen years of age requires four-fifths as much food as his father, and the boy or girl of twelve years should have half as much food as an adult. Recently certain specialists have been able to reduce the amount of protoid still lower than the above standards, which are less than those given ten or twelve years ago. But as long as the present habit of "bolting" food with insufficient mastication is common in the country it is not safe to reduce the amount of protoid to the lowest possible figure. The amount of food constituents which I have suggested can be easily obtained from standard food materials; less of these will be required if the foods are properly cooked. Just here the housekeeper's skill is called into account. No matter how nutritious and easy of digestion foods may be in their uncooked state, they may be almost, if not entirely, ruined as far as digestion and assimilation are concerned in the process of cooking.

A single portion of beefsteak, two eggs and an ounce of cheese, with milk and a little oatmeal, will furnish all the tissue building material the average man will require for one day. A half loaf of bread and a half pound of potatoes, with ordinary helping of rice and a tablespoonful of sugar will furnish the required amount of carbohydrate, and the required fat is easily obtained from the butter used on the bread, the oils in the cheese and the fat in meat. There is much more chance of too much fat being eaten with the ordinary meal than too little.

We are likely to underestimate the value of water in the diet and use it too sparingly. Water is a food and a very necessary one. Its duties for the body are numerous and important. It helps to carry food to the blood, assists in carrying off the waste matters, equalizes the temperature of the body and acts as a solvent for food. Its benefits to the system are many.

DRAGGING OF ROADS.

How to Get Them in Good Shape For Winter Hauling.

DON'T WAIT UNTIL SPRING.

Much Good Can Be Done by Grading Up in Summer and Fall For Work Later On—How to Make a Drag From Split Hickory Log.

On every farm where there is a mile or more of road, unless it has been made permanent by grading properly and macadamized or gravelled, there ought to be a road drag. With such a tool at hand any farmer can with little time and trouble keep his farm roads in perfect condition.

Having a large farm and over two miles of roadway, I have found a homemade drag to be a most useful implement. Of course we can get along with poor roads on the farm, but if we are the sort of farmers who take pride in having things in the best shape we will certainly take pleasure in keeping our farm roads in good condition. And I may add that it takes so little time and trouble to run over



HOW DRAGGING IMPROVES A ROAD.

(From Good Roads Magazine, New York) A mile or two of road when the team is already hitched to the drag that I usually go through the outside gate and work up and down the public road in front of the farm when I drag the farm roads.

The longer I keep my drag and use it on my roads the more I appreciate it. Mine is of the red split log type. I made it of a ten foot section of a twelve inch hickory log, split in the middle, and on the front cutting edge nailed some heavy sheet iron. It works about as well as the metal ones, some of which I see occasionally. I don't think it took me two hours to make my drag, though I did not make it strictly according to the regulation method as I have seen drags illustrated in farm papers. All of those seemed to have the two sections of log put together by having three large augur holes bored through them and round wooden bars about two inches in diameter put through to hold them parallel and rigid.

I did not have the large augur to bore holes big enough for stout wooden bars, so I merely sawed down into the upper edges of each half of the log at three places and split out the blocks, leaving a place into which I could put a piece of four inch scantling. I cut three pieces of scantling thirty-six inches long and fitted them into the cutout places and made them fast by driving spikes six inches long into them. The job seems to be as solid as those made by boring holes and putting the bars through. Some people make their drags of plank, and they do very well, but cost more and will not stand hard usage so well as the regular split log drag.

There is not, of course, so great need of the drag in summer and fall as in winter and spring, but it is a much easier and pleasanter job to make it then, and, besides, if one drags his roads a few times in summer and gets them well graded up they will remain in good shape far better than if left just as the summer hauling has made them.

Moreover, on many farms there are wet places in the roads that cannot well be worked to advantage in winter and spring. If these are graded up and drained in the fall they will no doubt stay good all the time. There is another use I have seen the drag put to that on some farms will come in very handy. Quite a good many cattle owners find it expedient to pen up their cattle at night in summer. As a rule, no straw or other bedding is thrown over the lot, and the manure remains on the ground and dries out and on sloping ground is often all washed away. I find that if I run the road drag over the cowpen occasionally I can scrape up several loads of the best kind of manure that is well worth collecting and hauling out to this spots on the farm.

I say with emphasis there is no small job that a farm owner can more profitably devote a few hours to when he has some leisure time after the press of farm work is over than constructing a road drag.—Missouri Cor. Farm Progress.

Hard Dirt Roads. Kansas perhaps has the best natural roads of any state in the Union. There is practically a highway on every section line. In three-fourths of the state the dirt roads ten months of the year are as level and hard as a floor.

Women as Well as Men are Made Miserable by Kidney and Bladder Trouble.

Kidney trouble preys upon the mind, discourages and lessens ambition; beauty, vigor and cheerfulness soon disappear when the kidneys are out of order or diseased.

Kidney trouble has become so prevalent that it is not uncommon for a child to be born afflicted with weak kidneys. If the child urinates too often, if the urine scalds the flesh, or if, when the child reaches an age when it should be able to control the passage, it is yet afflicted with bed-wetting, depend upon it, the cause of the difficulty is kidney trouble, and the first step should be towards the treatment of these important organs. This unpleasant trouble is due to a diseased condition of the kidneys and bladder and not to a habit as most people suppose.

Women as well as men are made miserable with kidney and bladder trouble, and both need the same great remedy. The mild and the immediate effect of Swamp-Root is soon realized. It is sold by druggists, in fifty-cent and one-dollar size bottles. You may have a sample bottle by mail free, also a pamphlet telling all about Swamp-Root, including many of the thousands of testimonial letters received from sufferers who found Swamp-Root to be just the remedy needed. In writing Dr. Kilmer & Co., Binghamton, N. Y., be sure and mention this paper. Don't make any mistake, but remember the name, Dr. Kilmer's Swamp-Root, and the address Binghamton, N. Y., on every bottle.

PUBLIC SCHOOL LIBRARIES.

List of Libraries in the County—New Libraries Being Established.

The County Superintendent of Schools has just made requisition upon the State Department of Education for the State's part in the establishment of rural libraries for the following districts:

Districts No. 6 of Coleridge, known as Parks Cross-Roads, and No. 5 of New Market, known as Level Cross, for original libraries of \$30.00 each; District No. 4 of New Hope and No. 1 of New Market for supplementary libraries of \$15.00 each. For original libraries the local district must raise \$10.00 and the county and State duplicate this amount. For supplementary libraries the district raises \$5.00 and this amount is duplicated by the county and State.

Randolph now has 36 rural libraries as follows: Ransom, Franklinville, Cedar Falls, Randleman, New Salem, Hopewell, Providence, Why Not, Glenola, Flint Hill, Liberty, Asheboro, Brower's Chapel, Bombay, Mount Olivet, Central Falls, Worthville, Staley, Melanchoth, Marlboro, Caraway, Farmer, Plainfield, Millboro, Julian, Shiloh, Coleridge, Union, Piney Grove, Pleasant Hill, Cedar Square, Trinity, Archdale, Park's Cross-Roads, Level Cross, Asheboro, colored. These libraries have been supplemented since their establishment as follows: Randleman, \$15.00; Franklinville, \$15.00; Ransom, \$15.00; Providence, \$15.00; Why Not, \$30.00; Glenola, \$30.00; Staley, \$15.00; Marlboro, \$15.00; Caraway, \$15.00; Farmer, \$15.00; Julian, \$15.00; Bombay, \$15.00; Trinity, \$15.00; Asheboro colored, \$15.00.

Several applications for libraries will soon be reported. The children of the county are looking for better things to read. This is an indication of a healthy sentiment among the people.

Bees Laxative Cough Syrup contains no opiate or narcotic. It is a gentle, easy laxative, by which it drives the cold from the system and at the same time heals irritation of the throat and stops the cough. Sold by Simpson's Drug Store.

Large Porkers in Other Counties.

Says the Stanley Enterprise: Frank M. Boyett is the champion pork raiser of the county, so far as reports thus far received show. He killed one 14 months old that weighed 503 pounds, one 15 months old weighing 670, and another 14 months old that weighed 550—a total of 1,723 pounds.

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