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America Must Learn What to Eat

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Leaving your dining table each morning, noon and evening with your hunger satisfied is no sure sign that you are well fed. Not even three bountiful meals a day, well-stocked pantries, and liberal grocery bills indicate that you and your family are eating enough of the right foods necessary for good health.

In fact, high grocery bills may give false assurance of good living. For it is not what is spent, but rather how it’s spent that determines good or poor diets. Not only poverty but also unwise selection and poor eating habits account for the malnutrition of one-third the families in the United States.

Proof that money alone does not provide good nutrition came from a recent study of the nutritional status of Iowa State College girls. The girls, most of whom were from families financially able to provide adequate diets, showed indifference or lack of information about good nutrition.

The research directed by Margaret A. Ohlson, Foods and Nutrition Department, is a part of a 5-year study of college women’s nutrition by seven midwest colleges. Physical defects caused by poor diets either before or during college were used as a check.

The condition of the teeth was considered a measure of past nutrition. Of the 396 freshmen girls whose teeth were examined, one-third, or 111, had more than 9 molars filled before college, and only 19 girls had no decayed molars. Assuming that a filled tooth means previous decay to which faulty diet may have contributed, 95 percent of these girls probably had not eaten enough tooth-building foods during their growing years.

Found Anemic

The hemoglobin content or “redness” of the blood was studied to determine the presence of nutritional anemia. Approximately 20 percent of 1,265 freshman girls examined were found to be anemic. Since nutritional anemia is related to diet—at least at this age level it can be relieved by proper diet—it was again concluded that some of the
girls had not eaten properly balanced diets before coming to school. Particularly disturbing is the fact that even mild anemia lowers physical efficiency and is a real hazard in child-bearing.

These figures on tooth decay and anemia would not be surprising if the girls were from low-income families. However, the results are alarming when we realize that probably none of these girls has ever been actually hungry; the majority come from homes with ample means to provide wholesome food. Obviously, the only explanations for malnutrition in our "cream of the crop" must be ignorance of what to eat or else lack of interest in what is eaten.

Study of the girls' food habits in college further proved this fact. Because 82 percent of these girls continued to have molar teeth decay during college, and because low blood hemoglobin tended to remain low, the adequacy of the college diet was questioned. Studies were made of the dining hall food served to the girls—it was found to be completely adequate. However, the food the girls actually ate was only about half adequate. Evidently, the girls did not eat the right foods even when they were placed before them.

Good nutrition for these college girls, then was not a problem of money, but of taste and training. For instance, they did not eat vegetables, eggs and whole grain cereals, three foods which are among the best sources of iron and vitamin B— the very nutrients which prevent nutritional anemia.

Their Families, too

But we must not criticize the coeds too severely for their apparent lack of judgment at meal time. Evidently their families did not eat enough vegetables, eggs and whole grain cereals, either. In fact, many Iowa farm families have similar nutritional lacks.

If our poorly chosen one-sided diets always advertised themselves through tooth decay, anemia, rickets, scurvy, pellagra or other "deficiency diseases," we could see how few of us are well-fed. However, there are less distinct signs of malnutrition. We all know people with no pep, no zest for work, chronic fatigue, digestive upsets, aches and pains, all of which may result from lack of minerals and vitamins. Ignorant of the cause, we drag on day after day, never realizing that perhaps if our breakfasts, lunches and dinners were better balanced, we'd feel more like working and playing.
The school lunch should provide a third of the day's food—it's a factor in grades and health.

What does "balanced" mean? Simply that our three meals a day will give us the energy, protein, minerals and vitamins which experts have spent years proving we need. We can get along without some of the essential nutrients for months before something really goes "haywire." However, deficiencies may all the while be taking their toll of our dispositions and outlooks on life.

Some foods are more important than others—foods rich in vitamins, minerals and protein protect against dietary diseases and are called "protective foods." Listed as our guardians of good health are milk, cheese, eggs, vegetables, fruits, and whole grain cereals and flours. If we eat enough of these common foods we can be fairly sure we aren't robbing ourselves. Nutritionists tell us that the American people are most often deficient in certain minerals and vitamins, but they also tell us that the foods which supply generous amounts of the often-deficient foodstuffs also furnish the other nutrients.

An easy way to plan a daily adequate diet for an adult is to build it around the following:

**Basic Adequate Diet**

- Milk—1 pint (2 cups) or more
- Egg—1
- Meat, fish or poultry—1 average serving
- Potato—1
- Succulent or green vegetables—2 generous servings

Many homemakers find canned food left on the shelf at the end of the year. Setting a week's supply of various foods out on a table helps make them disappear.
Fruit—2 generous servings (including one serving of citrus fruit or tomatoes)
Whole wheat bread—3 slices
Whole grain cereal other than bread—1 serving
Liver at least once a week

This list furnishes plentiful protein, minerals and vitamins for any grown-up—not enough calories for a day's work, but desserts, fats, beverages, and perhaps more fruits and vegetables will add those.

Now let's see just what essential substances are supplied by a "complete" diet. First of all is PROTEIN, necessary for the growth and repair of body tissues. Adults need new protein daily to replace worn-out tissues (even our skin wears away gradually). Protein is furnished in the above "Basic Diet" by the milk, egg, meat, fish, poultry, liver, and whole grain cereals and breads. Other rich sources are cheese, dried peas and beans. If the budget doesn't allow meat every day, dried peas and beans, cheese or more whole grain cereals, usually less expensive than meat, can be substituted keeping in mind, however, that protein from animal foods is better than vegetable.

MINERALS are essential to normal structure and processes of the body. Fortunately for us, the majority of the 14 necessary minerals are quite plentiful, so that an ordinary mixed diet, unless too highly refined, will usually furnish a safe surplus. For instance, salt for seasoning more than provides sodium and chlorine needed. The average family, however, is likely to lack calcium, iron and iodine, especially calcium.

Use Up Calcium

CALCIUM gives bones and teeth their firmness. Small amounts are necessary for the normal action of the heart muscle and for the clotting of the blood. Although children, because of rapid growth, need calcium in larger amounts, adults also need it for their bones and teeth, because the calcium in bones and teeth is not permanently deposited. We use up and excrete calcium each day, and we don't consume enough to take care of daily losses. Thus the body gradually drains the mineral from the bones and teeth. This explains why a "tooth for every child" once was considered the inevitable result of motherhood.

Calcium lacking in old people may result in weak bones and slow-healing fractures. Our only rich source of calcium is milk—also milk products such as cheese, buttermilk, dried, evaporated, malted and condensed milks. Fairly good sources are: Green leafy vegetables, dried fruits and molasses. Milk is preferred not only because it contains much calcium but also because the calcium in milk is better utilized by the body.

IRON is the blood-building mineral which makes blood red. The iron in the blood enables us to be strong and vigorous by carrying the air we breathe to every cell of the body. Lack of iron in the blood is called "anemia." We work with less power, we're slowed down, and when we do work we tire easily; our resistance to infection is lowered and we lack pep. Although there are several causes of anemia which label it mainly a medical rather than a dietary problem, there is one type—nutritional anemia—which can be prevented by proper diet.

The presence of nutritional anemia in the college girls studied at Iowa State, with its symptoms of decreased vitality, fatigue and low resistance, was one of the evidences of faulty diets.
Liver for Iron

Going back to our basic diet, iron will be furnished by the meat, liver, egg, green leafy vegetables, and the whole grain bread and cereal. In meats, the ones which contain large amounts of blood are good sources. Thus, beef muscle is a better source of iron than pork, veal or lamb. Meat specialties—liver, tongue, heart and kidneys—are still better than muscle. Liver, the richest source of iron, is recommended at least once a week. Other good sources of iron are found in legumes (peas and beans), molasses and dried fruits (apricots, peaches and prunes). Because minerals are in the bran of grains, white flour has only one-third as much iron as whole wheat flour. “Enriched” white flour has iron added.

IODINE is the fourth mineral commonly lacking. Its deficiency causes simple goiter—swelling of the thyroid gland in the neck. In the so-called “goiter belt” states of the Great Lakes, Pacific and Northwest regions—the iodine-poor soil grows iodine-poor vegetables. Although seafood is a good source of iodine, an easy preventative measure against goiter is the use of iodized table salt.

VITAMINS, except for abnormal cases, should come from the garden or the grocery, instead of the drug store. First of all, vitamins from foods cost less than in their purified or concentrated forms. Secondly, although we know of many nutrients essential for growth and good health, there may be still other vitamins which are equally essential but which have not, as yet, been discovered.

Eat Large Variety

With vitamins, just as with minerals, if we obtain the ones most often deficient and obtain them from a large variety of natural foods, we can be reasonably certain to have every vitamin.

Vitamin A is essential for good health, normal growth, tooth formation, vigor and resistance to infections. Lack of vitamin A causes night blindness, a condition of the eyes which cuts down our visibility in half darkness or upon sudden changes in light. How much you need depends upon your size. Vitamin A, although stored in the liver must be provided each day to assure good health. In our list of protective foods, milk, egg yolk, liver and green leafy vegetables supply ample vitamin A. Usually the presence of green or yellow colors in vegetables means that these vegetables contain carotene, the pro-vitamin A which the liver changes to vitamin A.

Helps Body “Breathe”

Vitamin B or thiamin is necessary for growth and for the good health of nerves, muscles, and digestive system. Its main work is in helping the body “breathe.”

Calories determine vitamin B requirements. The more we eat the more vitamin B we need. Nervousness, digestive disturbances, fatigue, poor appetites and constipation may result from insufficient vitamin B. Meats, especially pork muscle, liver and kidney, whole grain cereals and flours, yeast, wheat germ, peas, beans and nuts are good sources. Least expensive are the whole grain cereals and breads. “Enriched” flour has vitamin B added.

Vitamin C cements cells together. A total lack of vitamin C causes scurvy, a disease characterized by hemorrhages, swollen joints and gums. More commonly diets poor in vitamin C result in sallow, muddy complexion, loss of energy, anemia, or fleeting pains in the joints and limbs, especially the legs—sometimes mistaken for rheumatism. The so-called growing pains of young children may be due to a lack of vitamin C and may really be a sign of scurvy. Babies often exhibit mild scurvy through lack of appetite, failure to gain, intestinal disturbances, petulance, pain in muscles and joints shown by dislike in being picked up from the crib.

On the other hand, sufficient vitamin C helps us resist infections, prevents tooth decay and keeps our bodies in buoyant health. Best sources are citrus fruits (oranges, lemons and grapefruit) and tomatoes. Next best are fresh berries, fresh green leafy vegetables and growing shoots. Raw fruits and vegetables are better sources than cooked ones, for heat destroys vitamin C. Tomatoes and potatoes, however, lose little during cooking. Incidentally, potatoes may be an important source if consumed in large quantities.

Sun “Generates” D

Without Vitamin D the bones and teeth are not properly formed. Lack in children causes rickets, of which bow legs, flabby muscles, paleness, and irritability are common signs. One best source of this vitamin is the sunshine which generates vitamin D under our skins. However, during cloudy seasons D must be supplied by foods. This vitamin is commonly provided only in fish liver oil—cod-liver is the most practical standardized source. Few other foods contain vitamin D—only egg yolks, milk and butter, and even they are not reliable sources.

If the foods described above are included in the daily diet, the normal adult should not only have good nutritional health but should also live longer. Old people may need less of each, but do need all the elements. Children, because of rapid growth, need proportionately more protein, vitamins and minerals than their parents—for example, a child needs twice as much milk (1 quart) daily to satisfy his calcium needs. Adolescents may need even more—up to 2 quarts daily.

Homemakers who work wide varieties of foods into their meals are most likely to feed their families well—eating many kinds of vegetables, many kinds of fruits and meats, will help insure presence of all the necessary food nutrients.