

Vitamins in Every Day Menus

By LAURA A. MILLER

ASSOCIATE PROFESSOR OF HOME ECONOMICS



Most Persons Can Get Their Normal Requirements by Reasonable Attention to Variety in Their Meals

VITAMINS are the frontier of the science of nutrition today. The word for these new substances was originated just thirty years ago, and its present form of spelling is more recent still. New facts about vitamins are constantly being discovered and some of the developments are almost as exciting and far reaching in effect as some of the events of our nation's pioneer days.

The knowledge of vitamins is far from complete. There remains much territory still to be sought out. Some ideas held today may be upset later but enough seems established that intelligent people should be fairly well informed on the subject as it is known today. This is not only a field of academic interest, but also one of vital importance to the physical, mental and probably moral health and economic interests of us all.

New vitamins are discovered and the vitamin value of food is determined chiefly by manipulating the diet of animals and noting the results. When vitamin values of foods are given in "international units," it is indication this method has been used, following the procedure as adopted by a committee of the League of Nations. When the chemistry of a vitamin has been determined, chemical tests are possible which are more accurate and less tedious to perform. Such tests have been used when values are given in terms of milligrams of the chemically pure vitamin.

The vitamins that at present seem to be well established and are recognized as being important in human dietaries are:

A or antiphthialmic

B—complex:

B₁ or thiamin

Riboflavin

Nicotinic Acid

Antigray hair factor

C or ascorbic acid or cevitamic acid

D or calciferol

E or alpha-tocopherol

K, the coagulating vitamin

The chemistry of each of these has been determined and they are available in pure form.

The B-complex has been pictured by Williams as a partially unravelled rope, some parts of which have been shown to be single entities of vital importance to man. Other parts while essential to certain animals have not yet been found so far men, and other parts still are incompletely separated.

Vitamins in general are of value to protect us from specific diseases, to promote growth in the young, to aid in metabolic processes in the body, to help fortify the body against invasion by infections.

Vitamin A is particularly of value for healthy eyes. It is needed for quick response to changing intensity of light, to see in semidarkness. In California, bus and truck drivers doing much night driving are routinely having their eyes tested for this and those whose eyes react poorly are often greatly helped by vitamin A. The teeth are affected by its lack, especially during the period when they are forming. Muscular weakness and weak epithelial cells, especially of tissues lining the cavities of the body, also result from its deficiency. Vitamin A can be stored in the body, and in times of illness it is an important defense.

Thiamin has largely been removed from our diet by the use of refined cereals and sweets. In the last few years we have become aware that the effects of its lack are more widespread than had formerly been recognized. It is chiefly this that has brought the new reinforced flour onto the market. It has been called the appetite vitamin. It is needed for a healthy digestive tract to prevent constipation, and for healthy nerves.

Riboflavin is necessary for certain metabolic processes, for healthy skin; especially is its lack shown on the lips at the corners of the mouth. In animals there is loss of hair. May understanding of diet some

day lead to a prevention of baldness in man?

That nicotinic acid is the primary factor in pellagra-prevention or cure is now well established. You may find this sort of statement repeatedly in the medical and scientific literature. Oklahoma has had much pellagra for many years, partly due to poverty, but also due to faulty choice or use of available food. A few years ago I saw at one of our mental hospitals, a ward full of women, ten to fifteen of them, whom the doctor said were all there because of pellagra. The chief treatment at that time was to teach them to change their food habits. Today in the same hospital proper food can be supplemented with nicotinic acid.

The antigray hair factor is one of the most interesting of vitamins. Black rats deprived of it turn a silver gray down each side. When fed it again they turn black once more. This material is on the market and I hear of some success in its use by people.

Ascorbic acid deficiency is a chief cause of "pink toothbrush" of which you often read in advertisements. Its lack affects the gums, making them bleed easily, and the teeth may loosen. The joints are often painful with rheumatism-like pains or "growing pains" in children. Hemorrhages under the skin result from weakened capillaries. Dr. Hanke in *Diet and Dental Health* describes some 500 cases among his patients who had gum diseases improved by increased use of foods rich in vitamin C. We may have few fully developed cases of scurvy in America, but we have many ill conditions due to the lack of ascorbic acid.

Vitamin D aids in the absorption and metabolism of calcium and phosphorus. Its need in infancy is best understood, but doubtless we all need it. Sunshine can take its place to a great extent. Lack of D is a cause of rickets which may leave the child with bowlegs or knock-knees, a disfigurement that lasts through life.

Vitamin E has been shown to be essential for reproduction. In many cases of habitual abortion it will cure the difficulty.

The coagulating vitamin is essential in formation of blood clot. A preoperative precaution often taken today is to administer this vitamin K.

Do we need to worry about vitamins? Did not our pioneer forefathers get on very well before vitamins were dreamed of? How is one to know if he is eating a safe amount of these vitamins? These are questions that continually arise.

Yes, we do need to worry about vitamins—to take thought for them in the diet. Many evidences of their deficiencies in diets are coming to light in the draft examinations of our young men. As I look at a class of fifty that I teach at present, most of whom are girls, I fear they

(PLEASE TURN TO PAGE 29)

Vitamins in Every Day Menus

(CONTINUED FROM PAGE 13)

would make a poorer showing than the boys.

Our forefathers sometimes did better nutritionally than we do, as they ate more simple, wholesome, natural foods and fewer highly manufactured, processed and refined foods. These processes have greatly reduced the B-complex values, especially, of many of our staples. Some of our modern techniques such as preservation of foods by canning and refrigeration have given us superior diet values for certain vitamins. The pioneers often used wild greens, a habit not so common today, but a good one.

Standards for the amount to use in the daily diet have been proposed for several of the vitamins in terms of units. These standards have been used in working out suggestions in terms of common foods to aid the layman in his choice of a diet.

A good dietary plan for including a generous amount of the vitamins is to eat the following daily:

1) A pint or a quart of milk, or some milk and two to three ounces of cheese. The canned irradiated milk is better for vitamin D than fresh milk.

2) A serving of meat. About once a week use glandular organs, an oily fish such as salmon, and lean pork.

3) An egg—especially the yolk.

4) Whole cereal in some form, perhaps Graham bread or crackers or as breakfast cereal or reinforced flour or cereals.

5) Potatoes or one of the legumes.

6) Other vegetables—about four servings. Use some of these raw very often. Choose green leafy and yellow ones often. Cabbage, tomatoes, carrots, wild greens are among the best for vitamins. If potatoes are used more than once a day, less of these may be used but never omit them entirely.

7) Fruit—three or four servings, using fresh ones in season. Citrus fruits, cantaloups, strawberries, yellow peaches, bananas, are especially valuable. Tomatoes can be used as fruit. Some of these should be used raw often.

8) Butter, or oleo reinforced for A.

If these foods are used daily there will be little possibility of any normal person having a vitamin deficiency. However, it is possible for a digestive disorder to interfere with their absorption or for other abnormalities to modify their utilization or the requirements. Then the vitamin concentrates are of value in the hands of a competent physician.

How to put these vitamin-rich foods into menus is relatively unimportant. Some suggestions are: use fruit in some way at each meal, use whole cereal at breakfast or if preferred, as breads at other meals; the egg may be served plain, in prepared dishes as desserts; use two servings of vegetables at two meals; include the meat and potatoes at dinner; use milk with cereal, to drink, in soups, desserts, made dishes, as cheese; and no one needs suggestions as to the use of butter.

There are other reasons for including each of the listed foods in the diet, one of which is that most people like them. However, many people eat a diet made up almost entirely of muscle meat; refined cereal products such as white bread, rice, macaroni; cakes; sugar; syrups; fats and oils. Such a diet omits C entirely and includes almost none of most of the vitamins.

To one who eats all kinds of food it seems a very simple thing to use such a diet. If you do not have such good habits, it is not too hard to learn, and the effort will pay good dividends.

▲ ▲ ▲

Oil Man Stricken

Alfred G. Smith, '27, Oklahoma City oil man, died of a heart ailment last month. His death came suddenly during a business conference at an Oklahoma City hotel.

Thirty-five years old, he had been engaged in oil production and oil royalty work for the last ten years. He was graduated from Central High School in Oklahoma City and attended the University of Missouri besides O. U.

Surviving him are his mother, Mrs. Ethel M. Smith of Oklahoma City, two sisters of Oklahoma City, and a brother, Guy, of Albuquerque, New Mexico.

Women's Air Corps

Several Sooner alumnae are enrolled in the Tulsa Women's Air Corps, a group sponsored by the Tulsa chapter of the Women's National Aeronautical Association. The group includes Josephine Hindman, '34ba, Rubalee Parshall Johnson, '32ba; Billie Louise Parshall, '39bus, and Margaret Ann Hamilton, '38.

IMAGE IS NOT AVAILABLE
ONLINE DUE TO COPYRIGHT
RESTRICTIONS.

A paper copy of this
issue is available at
call number LH 1 .06S6
in Bizzell Memorial
Library.