

Vitamin and Mineral Needs

Does a typical diet provide enough vitamins and minerals?

According to nutrition experts, the average Western diet contains too much adulterated fat, processed foods and too little fiber. The combination of low fiber and highly refined carbohydrates and trans fats contributes to an increased risk of heart disease, cancer, and diabetes. Even conventional medical authorities believe that the average Western diet is not ideal, since it is linked to poor health. A good diet should consist of fresh fruits and vegetables, whole grains, legumes, nuts and seeds, dairy products, and fish.

Changes to the human diet affecting nutritional requirements:

People do not eat the same foods their great-grandparents ate, and these dietary changes might affect nutrient requirements.

Some foods were not available in Europe or Asia until the discovery of the New World. Before 1492, there were no potatoes in Ireland, no tomatoes in Italy, and no eggplant or green peppers in England. All these foods are New World crops. Other foods, such as rice and soy, are also relatively new to Europeans.

Another recent phenomena is that modern foods are generally picked before they are ripe. Ripening increases the nutrient content of the food, so diets based on unripened foods may be lacking in some nutrients.

Many of today's foods are processed with extra ingredients compared to food in the past. An example is a loaf of bread, which 100 years ago was prepared with only wheat, water, butter, baker's yeast, and a sweetener to help the yeast rise. Today, a modern loaf of bread may contain more than 100 ingredients, including preservatives, coloring agents, insecticides, herbicides, fungicides, and chemical residues from various packaging and cleaning procedures. These multiple ingredients may complicate digestion and increase the risk of allergic reaction.

Certain additives to the food chain have increased the need for certain vitamins and minerals. An example of this is the hydrazine residues in foods resulting from the fungicides used by farmers. The fungicides, along with nutrients from the soil, are absorbed by plants. Hydrazine compounds compete with and increase the body's need for vitamin B6.

Plants do not always need the same nutrients as people. For example, plants do not require selenium, iodine, or chromium to thrive. But if people are deprived of selenium, they can develop certain heart muscle problems and have an increased risk of cancer; if deprived of iodine, people can develop goiters; and if deprived of chromium, they can develop blood sugar problems.

People today do not eat the same quantities of quality food their ancestors ate (and in general, people do not do as much work). For example, if people require the amount of beta-carotene available in two pounds of carotene-containing food, but now only eat two single carrots, then they are risking getting less than optimal amounts of beta-carotene.

Supplements do not endanger health:

The few cases of vitamin toxicity— involving a handful of people taking extremely high dosages—do exist, but they are extremely rare. In most cases, any side effects caused by nutritional supplements are alleviated when the dosage of the supplement in question is reduced or discontinued.

How much is “enough” for vitamins and minerals?

Supplement labels indicate what percentage of the recommended amount for each nutrient is provided in the supplement. These recommended amounts for nutrients continue to be debated by scientists. An example is vitamin C. While small amounts (such as 60 mg per day) prevent scurvy, it may not be the optimal amount for the body's functions.

Finally, it is important to remember that supplements should be used as additions to an already healthful diet—not as antidotes for years of poor eating habits. If used properly, there is strong scientific evidence that supplements optimize health.