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Food vs. pills

Jennifer Anderson and Karen Wilken¹

Quick Facts

- Healthy people can obtain all the vitamins and minerals they need from eating a variety of foods.
- Taking supplements will not guarantee protection against disease.
- Large doses of either single nutrient supplements or high potency vitamin-mineral combinations may be harmful.
- Some individuals do have special needs and may benefit from taking a supplement.
- Vitamin deficiency is rare unless a person's diet is extremely unbalanced and lacks variety.

With so much confusion concerning the food we eat, the following questions and related myths are outlined to explain the value of food as opposed to vitamin and mineral supplement pills.

**Can Food Give Us
 All the Nutrients We Need?**

Nearly one-half of the U.S. population take a supplement each day on the premise that the food they eat lacks needed nutrients. The truth is, however, that most foods are abundant in nutrients and are the ideal source of nutrients. The quality and variety of food in the United States is such that everyone can obtain the vitamins and minerals they need from food. Our food supply provides a unique balance that cannot be duplicated by taking any combination of supplement pills. In addition, eating is one of life's pleasures. With sales of supplements approaching \$3 billion a year it is apparent that many people do not know these facts.

Some common myths regarding food supplements:

- Myth:* People can eat whatever they want as long as they take vitamin and mineral supplements.
- Fact:* Supplements supply some vitamins and minerals, but they do not provide all the components of food necessary for good health. We need

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42 nutrients each day. Supplements supply only a fraction of these and are not a "quick fix" for poor food choices.

Myth: People need vitamin and mineral supplements to insure good nutrition.

Fact: Supplements are not needed if a variety of foods are eaten. Taking in more nutrients than the body needs will not give added energy, more brain power or more protection against disease.

Can Vitamin and Mineral Supplements Promote Health and Prevent Disease?

Yes, vitamins and minerals will prevent diseases associated with nutritional deficiencies such as scurvy, beriberi, pellagra and rickets. These diseases, however, are rare in the United States because the foods we eat are good sources of the needed nutrients.

The diseases that plague today's Americans are chronic diseases not caused by specific nutrient deficiencies and therefore not prevented by supplements. Heart disease, cancer, diabetes and high blood pressure are affected by many factors, one of which is eating patterns. If people eat a variety of foods in adequate and moderate amounts, supplements will not give added protection.

Some common myths about supplements and disease prevention:

Myth: Taking supplements such as vitamin A, beta carotene, vitamin C and selenium will prevent cancer.

Fact: The exact components of food that may help lower the risk of cancer have not been identified. Foods rich in beta carotene may help lower the risk of cancer, but beta carotene pills do not have the same effect. Certain fruits and vegetables seem to have protective qualities. It is not known what components of these foods, if any, may protect against the development of cancer in people. There is no evidence that high doses of any vitamin or mineral prevent cancer.

Myth: Osteoporosis can be prevented by taking calcium supplements.

Fact: Many factors contribute to the development of osteoporosis, inadequate calcium is only one factor. Estrogen levels, exercise, gender, body size, smoking, race and heredity are all important aspects that relate to osteoporosis.

Calcium from foods is better absorbed and used than calcium from pills. The best food sources

of calcium are: low-fat milk, cheese, yogurt and canned fish with edible bones such as sardines and salmon. Collards and turnip greens also provide calcium.

Myth: Vitamin B-15 (pangamic acid), vitamin B-17 (laetrile), and vitamin P (bioflavonoids) are new vitamins that prevent disease.

Fact: These are not vitamins and cannot prevent cancer, help athletes or promote health.

Myth: Vitamin B-6 will alleviate PMS (premenstrual syndrome).

Fact: The evidence supporting this is thin. Many factors are associated with PMS. One critical factor is the importance of eating well and regularly.

Are There Dangers to Taking Supplements?

Large doses of either single nutrient supplements or high potency vitamin-mineral combinations may be harmful. Taken in high amounts, some supplements may produce undesirable effects such as fatigue, diarrhea and hair loss. Others may cause more severe side effects such as kidney stones, liver or nerve damage, birth defects, or even death. At high levels, single nutrient supplements function as a drug in the body and not as a nutrient.

Fat-soluble vitamins A, D, E and K are harmful in high doses. Water-soluble vitamins have commonly been thought to be harmless. Recent research, however, shows that vitamin B-6, a water-soluble vitamin, can cause nerve damage at the high doses prescribed for PMS.

Many factors influence toxicity. Supplement potency, dose (number and frequency), body size and how long the supplement is taken all influence whether a supplement can be toxic.

Common myths about the safety of taking large doses of supplements:

Myth: Supplements would not be on the market if they weren't safe.

Fact: There is no pre-market approval of vitamin-mineral supplements. The FDA cannot limit the quantity or concentration of nutrients a single pill can contain. The only exception is folacin.

Myth: There is no harm in taking supplements; after all they contain the same nutrients as in foods.

Fact: Very high doses of many vitamins such as A, C, D and B-6, as well as several minerals, can cause serious health problems if taken regularly. Excesses of one nutrient may cause nutritional imbalances or increase the need for other nutrients. Some supplements interfere with the action of medications, creating a variety of ill effects.

Who Needs Supplements?

National food consumption data and dietary surveys show that the majority of Americans get the nutrients they need through food alone. Some nutrients such as calcium and iron, plus dietary fiber, may require careful food selection but can be obtained from adequate amounts of foods.

Some individuals have special needs and may benefit from taking a supplement. These include:

- Newborn infants are given vitamin K to help blood clot and stop bleeding.
- Pregnant or breast-feeding women require more of many nutrients, especially folacin, iron and calcium. A supplement generally is needed for folacin and iron. Individual recommendations should come from a physician or registered dietitian.
- People with limited food intake have difficulty meeting their nutrient needs. This includes chronic dieters and some elderly.
- Some vegetarians, especially strict vegans, may not receive adequate amounts of iron, calcium, zinc and vitamin B-12.
- Individuals with certain diseases or physiological conditions may require supplementation under the advice of a physician and/or a registered dietitian.

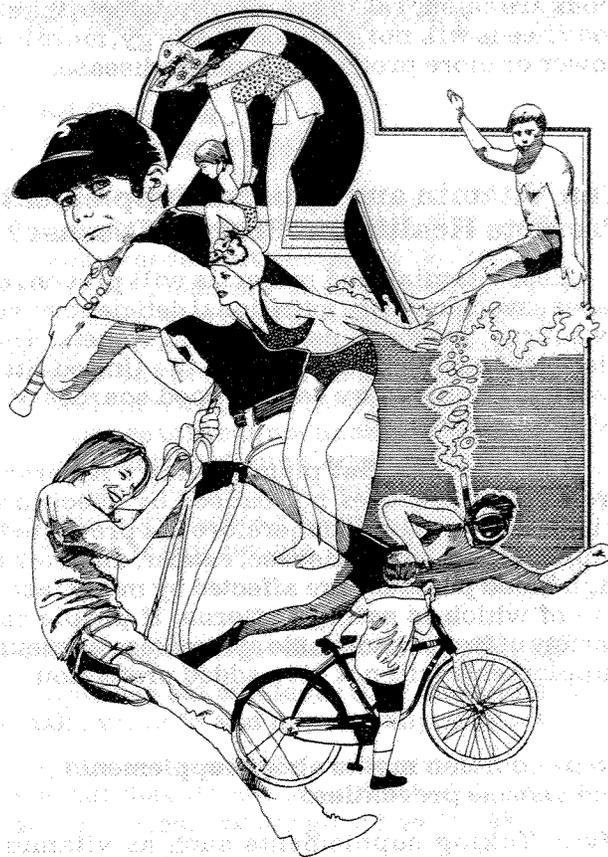
Some common myths about people who need supplementation:

Myth: Anyone who experiences emotional stress needs "stress" vitamins.

Fact: Emotional stress does not increase nutrient needs. In fact, some companies have been required to stop advertising their products as stress vitamins. Unfortunately other companies continue to make these false claims. Physiological stress such as burns, trauma and surgery do increase nutrient needs and a supplement may be prescribed.

Myth: Those who smoke or drink in excess should take vitamin pills to protect their body from the harmful effects of smoking and drinking.

Fact: Smoking does slightly increase the body's need for vitamin C, and alcohol can interfere with the body's ability to use several nutrients. However, neither increases the need for nutrients above 100 percent of the RDA (Recommended Dietary Allowance). Taking additional vitamins and minerals will not protect people from the harmful effects of smoking and/or alcohol abuse.



Myth: Competitive athletes and anyone who exercises regularly should take extra vitamins and minerals.

Fact: Athletes and fitness buffs are less likely to need supplements than anyone! When a person eats more calories to meet the increased demands, the small amount of extra nutrients needed are easily supplied.

The suggestion to buy nutrition insurance in pill form is appealing. But advertising is deceptive. Advertisers list all the terrible things that can happen if the diet is lacking, but never that vitamin deficiency is rare unless a person's diet is extremely unbalanced and lacks variety. Most important, they never tell how to measure whether or not the diet is adequate. If they did they'd lose customers.

Determining dietary adequacy actually is quite easy. People can get an adequate amount of all essential nutrients by eating a variety of foods they enjoy and can afford. Eating well need not be expensive and should be pleasurable.

A common myth about taking supplements:

Myth: Taking supplements is an inexpensive way to insure good health.

Fact: The \$3 billion Americans spend on supplements is a lot of money. Since the body has limited storage for most of these nutrients, they are excreted and go down the drain. The most cost effective way to insure good health is to eat a wide selection of foods.

Healthy people that take supplements should limit supplement potency to 100 percent or less of the RDA for age and sex. Self-prescribed high dosages of supplements can be potentially dangerous and cannot insure good health.



Quick Facts

Healthy people can obtain all the vitamins and minerals they need from a variety of foods.

Supplements will not guarantee that you will get the nutrients you need. In fact, they may interfere with the absorption of nutrients from the food you eat.

It is best to get your nutrients from the food you eat. If you are unsure if you are getting enough, consult your doctor.

Supplements are not a substitute for a healthy diet. They are only meant to fill in the gaps.

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