WHY YOU NEED SUPPLEMENTS

Discover why you may not be getting optimal levels of essential nutrients.

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Enhance Your Nutrient Intake

Follow these simple guidelines:

✓ Choose nutrient-dense foods

Whole grains and brightly colored fruits and vegetables typically have high nutrient levels. Choosing organic foods and lean, free-range sources of protein and fat is also important.

✓ Preserve nutrients during cooking

Avoid overcooking food to optimize nutrient retention. Whether baking, grilling, or steaming, fruits and vegetables should still be colorful and slightly crisp when consumed.21

✓ Buy fresh local foods

Reducing the amount of time foods are in storage or transit helps to preserve the naturally occurring nutrients in foods. Less transit also means less CO\textsubscript{2} generated in the atmosphere.

✓ Take high-quality nutritional supplements

Choose a high-quality, hypoallergenic nutritional supplement brand that is free of coatings, binders, artificial colors, added preservatives, hydrogenated oils or other unwanted excipients. These undesirable ingredients can diminish the bioavailability or health-promoting potential of the nutrients. Unlike foods, supplements also have the benefit of providing consistent levels of vitamins and minerals.22 For specific health concerns, it is important to choose supplements that reflect active ingredients and dosage levels used in studies.3

Ask your health professional for more information.

†These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.
Today’s diets are depleted of vitamins, minerals, essential fatty acids and other nutrients due to the quality of the modern food supply and our busy lifestyles. Combining a healthy diet and dietary supplements is the best approach to achieve optimal health.¹

Food choices are based on convenience:

Modern lifestyles typically involve juggling work, family and other activities. This leaves little time devoted to quality food choices and meals, leading instead to selections based on convenience. These options tend to be higher in fat, refined carbohydrates and sodium, and usually involve extensive processing to enhance taste, which can destroy or remove nutrients. Furthermore, higher amounts of these types of foods are associated with marginal micronutrient intake and low serum concentrations of vitamin A, E, C, B₁₂, folate and carotenoids.¹

In a survey of almost 2,000 adults, the most important values in choosing a lunch were convenience and taste. Health was the least important value.²

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Data from the National Health And Nutrition Examination Survey (NHANES) indicates that only 40% of Americans eat the recommended five or more servings of fruits and vegetables per day.\(^3\) Fruits and vegetables have been associated with overall health.\(^4\) However, the standard American diet is typically characterized by a high intake of:

- Saturated fat
- Refined grains
- Red meat
- Sugar

Nutrition surveys show shortfalls in many nutrients, including calcium, magnesium, potassium, vitamin C, vitamin E and vitamin K.\(^5\) Diets are also generally low in essential fats, which are critical for healthy cellular function and cardiovascular health.\(^6\)

Essential fats include:

- Omega-3 fatty acids: fish, flaxseed and walnuts
- Omega-6 fatty acids: vegetable oils, grains and seeds

Americans typically consume a diet that has a ratio of 15:1 omega-6 to omega-3 fatty acids. Research indicates that humans evolved with a dietary ratio closer to 1:1.\(^7\)
Food quality changes are the result of multiple factors:

- **Storage time and maturity at harvest**
  Harvesting plants prior to proper maturity or delaying time between harvest and consumption diminishes nutrient content potential, particularly for fiber, vitamin A, vitamin C and phenolic compounds. Additionally, nutrients can be harmed during storage or transportation. A 2004 study cited that storing tomatoes for 5 days decreased ascorbic acid by almost 13%.

- **Genetic selection**
  Modern fruits and vegetables are genetically selected, and in some cases modified, for shelf life, high yield or other growth characteristics rather than their ability to extract or synthesize nutrients from the environment. Compared with wild plants, most modern varieties are higher in sugar and lower in protein, fiber, vitamins, minerals and essential fatty acids.

Facts About Today’s Food Supply

Consuming a balanced diet that meets the recommended servings of fruits, vegetables, whole grains, essential fats and protein still may not ensure ample nutrient intake due to changes in our food supply. A comparison study evaluated potential changes in the average nutrient content of 43 fruits and vegetables between 1950 and 1999 and found the following results:

- 6% decrease in protein
- 16% decrease in calcium
- 9% decrease in phosphorus
- 15% decrease in iron
- 38% decrease in riboflavin
- 20% decrease in ascorbic acid

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Atmospheric pollution
High levels of atmospheric pollutants can limit the plants’ ability to perform photosynthesis or overwhelm their detoxification capabilities. Elevated CO₂ in the atmosphere due to pollution increases the levels of sugar and starch in plants, while decreasing protein levels. Pollutants can also affect the plants’ ability to extract nutrients from the soil, particularly calcium, magnesium and zinc.¹³

Fertilization quality
Fertilization of the soil with isolated key nutrients such as nitrogen, phosphorus and potassium, as opposed to more comprehensive fertilizers, can alter the composition of plants and lead to nutrient losses. For example, plants raised on high-potassium soil have higher levels of potassium, but reduced levels of calcium and magnesium.¹⁴,¹⁵

Environmental conditions
Differences in climate and soil type can cause large variations in nutrient content. Calcium-rich soil will produce plants higher in protein, while potassium-rich soils produce plants higher in carbohydrates. Regional rainfall can create wide variations in vegetable mineral composition, particularly for calcium, magnesium and potassium.¹⁵

Farming practices
Free-range animals produce meat with significantly higher levels of omega-3 fatty acids and conjugated linoleic acid.¹⁶ Dairy products made from grass-fed animals are also higher in vitamin A, E and beta-carotene.¹⁷ Feed-lot fed animals produce meat containing lower levels of these critical nutrients. Antibiotics fed to these animals can also result in altered bacterial profiles, potentially altering gut microflora.¹⁸

Industrial waste and contamination
Chemical residues and industrial waste, including heavy metals, pollute the land, water and food supply. A 2004 analysis of 2,644 individuals found that “most people in the U.S. carry a significant body burden of pesticides and pesticide metabolites,” with the average person testing positive for 13 out of the 23 analyzed. Estrogenic compounds, such as DDT and its metabolites, polychlorinated biphenyls (PCBs) and p-nonyl-phenol and bisphenol-A, are of particular concern.²⁰ Processing and neutralizing these toxins require increased levels of amino acids, vitamins and minerals.⁷


References
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