

Dietary Supplements: Be an Informed Consumer

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Vitamins, minerals, and herbal products are commonly referred to as dietary supplements. Botanicals or herbs, amino acids, and probiotics may also fall under the heading of dietary supplements. Sometimes, a health-care professional may recommend supplements to make sure an individual gets enough essential nutrients for the purpose of maintaining or improving health. Let's look at some basic information that will help you be a more informed consumer when choosing dietary supplements.

Check Out the Label

The Nutrition Facts label is required on most packaged foods in the United States, including dietary supplements. Since the label is designed to provide useful and accurate nutrition information, knowing how to read and understand the label is a good skill to have. For more information on how to understand and use the Nutrition Facts label, visit <https://www.fda.gov/food/nutrition-facts-label/how-understand-and-use-nutrition-facts-label>.

- Choose supplements that contain vitamins and minerals in amounts less than or close to 100 percent of the Daily Values (DVs). The Food and Drug Administration (FDA) defines DVs as "the recommended amounts of nutrients to consume or not to exceed each day." The DV percentage shows "how much a nutrient in a single serving of an individual packaged food or dietary supplement contributes to your daily diet."
- Most multivitamins do not contain 100 percent of the DV of calcium, magnesium, and phosphorous. This is because calcium and magnesium are too bulky and phosphorous is usually added with calcium.
- Beta-carotene is the only form of vitamin A that acts as an antioxidant in the body. Look for a supplement that contains beta-carotene only.

- Avoid excess doses of vitamins and minerals. Besides increasing the price of the supplement, high doses of some nutrients may interfere with the benefits of others. Some nutrients, such as fat-soluble vitamins A and D, may be toxic in large doses. Excess intake of water-soluble vitamins, such as vitamin C and any of the B-vitamins, will simply be eliminated when you urinate.

Choose a High-Quality Supplement

The FDA oversees safety, manufacturing, and product information, while the Federal Trade Commission (FTC) regulates the advertising of all dietary supplements. Since supplements are regulated as food, manufacturers are not required to do the testing or quality control that is standard protocol for regular drugs. This makes dietary supplement quality difficult to assess. The U.S. Pharmacopeia (USP) is an organization that sets standards for the composition and quality of drugs and supplements. USP has also established that a supplement should be absorbed by the body within 45 minutes.

- Look for labels that include a verified mark from the USP. This mark means that the supplement has the amount and type of nutrients listed on the label and was prepared using safe and well-controlled procedures.



- Do not buy a supplement past its expiration date, as the nutrient quality may be reduced.
- Store supplements in a cool, dry place, and keep the bottle sealed to minimize loss of potency.
- Generally, it is recommended to take supplements with a meal. The body may absorb the supplement more efficiently and reduce the risk of upset stomach.

Don't Be Fooled by Unsubstantiated Claims

It is illegal for companies to make claims that supplements treat, diagnose, prevent, or cure diseases. If it sounds too good to be true, it probably is. Speak with your health-care professional to make sure that your supplement of choice does not interact with other medications you may be taking. Also be aware that some supplements may not have been tested in pregnant women, nursing mothers, or children, so extra precautions may be necessary.

- Supplements labeled natural, clean, or organic offer no benefits over synthetic vitamins. In some cases, the synthetic form is more easily absorbed by the body than the natural form, as is true for folic acid.
- There is no evidence that emotional stress increases the need for vitamins or minerals. Some supplement formulas are marketed specifically for managing stress, but no long-term studies demonstrate the ability of certain nutrients to directly reduce stress levels.
- High-potency or therapeutic-dose supplements offer no advantages. More is not better. This should be noted by those who receive vitamin injections or IV infusion of vitamins and minerals.
- Time-release supplements are not worth the extra expense. Maintaining a constant level in the body, as is recommended for antibiotics, is not necessary for vitamins.
- Nutrients found in supplements are also found in food sources. When consuming these nutrients from food, we also get other healthful nutrients, such as phytochemicals. Phytochemicals are substances found in plant foods that may act as cancer-fighting substances or provide other health benefits when eaten as a part of a varied diet.

Buy the Best for Your Money

The dietary supplement industry is a \$150 billion-plus business. While some individuals do need to complement their diet with supplements, evidence-based research indicates that we should all prioritize eating nutritious foods and staying active. For more information, visit <https://www.myplate.gov/life-stages>.

- Higher-priced brands are not necessarily better. Store brands are often the same as national brands, only less expensive. Consider the name of the manufacturer or distributor. Supplements made by a nationally known company may be more likely to use good manufacturing practices during production. You can contact the manufacturer for more information.
- Women who take iron supplements should take them at mealtime with a glass of juice. Foods rich in vitamin C help the body absorb more iron from supplements and food. Avoid coffee or tea, as these contain substances that may inhibit iron absorption. Not all iron supplements are created equally. Ferrous gluconate or ferrous sulfate are

good choices as they are better absorbed. Other ferrous compounds are poorly absorbed.

- While calcium citrate is the most easily absorbed calcium supplement, your health-care provider may recommend calcium carbonate, depending on your specific health disease or condition.
- Usually B vitamins (thiamin, niacin, riboflavin, folic acid, and vitamins B₆ and B₁₂) are absorbed easily.
- We are still learning about nutrients and supplementation through research. An example is continuing study of the use of doses of vitamins C and E beyond recommended daily amounts (RDAs), which has not been substantiated as a recommendation. For more information on ongoing research, visit <https://ods.od.nih.gov/Research/populationstudies.aspx>.

Herbal Dietary Supplements

There are supplements available that include compounds other than vitamins and minerals, with many of these compounds made from herbs. Herbs are natural products that contain an active ingredient that may vary depending on the genetics of the plant, growing conditions, plant parts used, harvest time, preparation, and storage. As with vitamins and minerals, it is illegal for companies to make claims that herbal supplements treat, diagnose, prevent, or cure diseases.

Many studies have shown that certain herbs may help people with conditions ranging from headaches to high cholesterol. Some herbs might even have the potential to become the next quinine, aspirin, or digitalis—all drugs that were originally derived from plants.

However, there is no guarantee that herbal supplements can treat what they claim they are for, and in most cases, no one really knows what will happen if you take them. You may have no way to know whether:

- a plant's active ingredients are actually in the herbal supplement you buy,
- a supplement's ingredients are in a form your body can use,
- the dosage makes any sense,
- unknown ingredients are in the supplements,
- the supplements are safe, or
- the next bottle of those same pills will have the same ingredients.

No herb should be a substitute for an established medical treatment or therapy.

Any potential use of herbal or botanical supplements should be discussed with appropriate health-care professionals before beginning their use. If you do take an herbal supplement and experience any unusual symptoms, allergies, rashes, or other problems, stop taking the product at once. The FDA advises a consumer to contact his or her physician, who should then call the Agency's MedWatch hotline for professionals to report adverse effects, as well as contacting your local and state health departments.

Buyer Beware

There are some herbs that merit further study, such as chamomile, echinacea, garlic, ginger, ginkgo biloba, ginseng, and Saint

John's wort. However, some herbs, vitamins, and minerals can have possible health hazards. Remember, any product potent enough to help people can also be potent enough to cause side effects or harm. The FDA has issued warnings about many supplements and continues to write letters of warnings to companies found to have dangerous or adulterated ingredients. If a company continues to produce a product, the FDA takes action to get that ingredient off the market. Fraudulent products often may be identified by the types of claims made in the labeling, advertising, and promotional literature. Beware of terms such as:

- breakthrough,
- magical,
- miracle cure,
- new discovery,
- detoxify,
- purify, and
- energize.

Also, beware if a product claims to be backed by scientific studies but has no list of references or if references are inadequate.

Healthful Eating May Include Dietary Supplements

Vitamins and minerals are essential to helping your body develop and function as it should. Nothing replaces eating a balanced diet, and supplements should never be a replacement for eating good food. Besides, a tasty, nutrient-packed meal leaves you feeling much more satisfied than taking a supplement. Dietary and herbal supplements do not make up for a poor diet. But for those who cannot get all the nutrients we need through balanced eating, a dietary supplement may be a way to add what our body needs to stay healthy. Consulting your health-care professional and using the information in this publication will help you be a more informed consumer when choosing dietary supplements.



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