

Abridged Version

# The Prepared Patient<sup>®</sup>



**CFAH** CENTER FOR ADVANCING HEALTH  
*Evidence. Engagement. Equity.*

## Vitamins & Supplements: Before You Dive In

**V**itamins, herbs and other dietary supplements are often promoted as “natural” alternatives to pharmaceuticals and many people turn to them to try to improve their health. Others use supplements to lose weight, build physical strength or support nutritional goals.

Unlike pharmaceuticals (both prescriptions and over-the-counter medications)—which must be FDA-approved as safe and effective before they can be marketed—supplements are considered to be foods by regulators and are assumed to be safe until proven otherwise.

Despite many reports of health problems, only one supplement has ever been pulled from the market: the stimulant ephedra, which was banned in 2004 following reports of deaths. With such little regulation and oversight, safe supplement use requires that consumers be cautious and savvy.

“**Supplement** is a broad term that includes vitamins, minerals, herbs and botanicals,” says Carol Haggans, a registered dietician and science and health communication consultant for the Office of Dietary Supplements of the National Institutes of Health. **Herbs** and **botanicals** are derived from plants, while other supplements may include animal sources. **Vitamins** are essential nutrients made up of organic compounds, while **minerals** is an imprecise term for certain chemical elements necessary to life, like calcium.

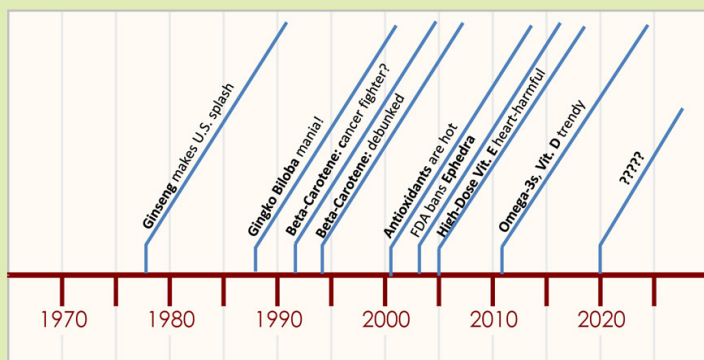
### Managing Interactions and Dosing

Like drugs, supplements can combine with other medications in unhealthy ways. For example, the anticoagulant medicine warfarin (Coumadin) can interact with ginkgo biloba and with garlic and cause bleeding. St. John’s wort, which is often used to treat depression, can weaken the effects of birth control pills and other medications. Vitamins C and E can also potentially interfere with chemotherapy used to treat cancer.

This is a situation where watching carefully for side effects is especially important and consumers are mostly on their own to be vigilant.

Dose is also a critical consideration. “Many nutrients have an upper limit,” Haggans says. “More is not better and above certain amounts, they can be toxic.” She notes that iron is one mineral that is dangerous in high doses. Niacin is another.

### Vitamins and Supplements in Vogue



Source: Center for Advancing Health/Health Behavior News Service

Another caution: “Natural is not always safe,” Haggans says. Both arsenic and poisonous mushrooms are completely natural but deadly to eat.

Also, never rely on a single study or personal story to provide evidence of safety or effectiveness.

The Office of Dietary Supplements, the National Center for Complementary and Alternative Medicine, and the Memorial Sloan-Kettering Cancer Center all keep regularly updated fact sheets on the most commonly used herbs, supplements and vitamins.

Supplements can be helpful in some cases but they are less regulated than drugs and have many of the same side effects, drug interactions and toxicities at high doses seen with pharmaceuticals. Consequently, they should be used with care and with guidance from a doctor or trusted medical professional.

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## Finding Safe Supplements

Check out these sources of vitamin/supplement information before plunging in:

- These three organizations all keep regularly updated fact sheets on the most commonly used herbs, supplements and vitamins.
  - **The Office of Dietary Supplements**  
(<http://ods.od.nih.gov/factsheets/list-all>)
  - **National Center for Complementary and Alternative Medicine**  
(<http://nccam.nih.gov/health/herbsataglance.htm>)
  - **Memorial Sloan-Kettering Cancer Center**  
(<http://www.mskcc.org/mskcc/html/11570.cfm>)
- **U.S. Pharmacopeia** aims to help ensure the quality, safety and benefit of medicines and foods.  
(<http://www.usp.org/>)
- **Consumer Reports Health** regularly reviews supplements but may require a subscription for full access to information.  
(<http://www.consumerreports.org/health/natural-health/dietary-supplements/overview/index.htm>)
- **NSF International**, a non-profit NGO, also is involved in testing and certification efforts.  
([http://www.nsf.org/consumer/dietary\\_supplements/index.asp?program=DietarySup](http://www.nsf.org/consumer/dietary_supplements/index.asp?program=DietarySup))
- **ConsumerLab.com** tests and reports on health and nutritional products.  
(<http://www.consumerlab.com/>)
- **Natural Products Association** participates in quality assurance programs for dietary supplements.  
(<http://www.npainfo.org/>)