



NEHC NUTRI-FACTS

Dietary Supplements



What are Dietary Supplements?

The Dietary Supplement Health and Education Act defines dietary supplements as a product (other than tobacco) intended to supplement the diet. They contain one or more of the following dietary ingredients:

- A vitamin, mineral, amino acid, herb or other botanical;
- A dietary substance for use to supplement the diet by increasing the total dietary intake;
- A concentrate, metabolite, constituent, extract, or a combination of any ingredient described

Should I take Dietary Supplements?

Active duty, Reservists, family and retired military members may take dietary supplements to lose weight, build muscle, increase energy and improve health. Purchases of dietary supplements have increased greatly due to marketing and advertising by supplement manufacturers. Often the manufacturers use their profits to increase advertising rather than for product research or to improve manufacturing practices. Over 1,000 new dietary supplements are added annually to the 29,000 already available. These supplements are not created equally, and some can cause more harm than good if used improperly or if you have existing health conditions. For this reason, you should be careful in your selection and use of these products. Discuss your concerns with a health care provider or a registered dietitian if you need more information about a specific dietary supplement.

How safe are Dietary Supplements?

Many members of the U.S. military have had serious problems as a result of using dietary supplements ranging from dehydration, nervousness, headache, irregular heart beat, high blood pressure, stroke and even death. Safety is a major concern since the Food and Drug Administration does not regulate dietary supplements and manufacturers can put unproven claims on packaging. Recent laboratory tests of 27 types of multivitamins have demonstrated the worrisome fact that many packages of dietary supplements on store shelves do not contain what is listed on labels. Consumerlabs, a research and publishing firm that performs independent testing of supplements for the industry and consumers conducted the tests. They assigned failing grades to 9 of the 27 products. This means the products failed either to contain the labeled ingredients in the amounts described, or failed related tests of product break up and purity.

Are there any guidelines for using dietary supplements?

Using product labels and the Internet to make decisions about supplements is risky. The United States Pharmacopeia has created a "USP" marker that is placed on supplements, which meet manufacturer standards of quality, purity and potency. **Look for the "USP" United States Pharmacopoeia notation on supplement labels.** This indicates good manufacturing practices and identifies products that meet specific standards.

Be wary of sensational claims. If a product seems too good to be true, there is a good chance that very little scientific proof exists for the manufacturer's claims. Discuss supplement use with your primary care provider before purchasing. Just as it is important to read food labels, reading product labels on supplements is useful as well. If you do decide to take a dietary supplement, start with a single product and take the lowest dose first, not to exceed recommended amounts. Stop taking the supplement if you feel worse or develop new symptoms. **Contact your primary care provider immediately.** Because dietary supplements can interfere with or change the effects of other medications, it is very important to tell your primary care provider the names of any of these products you are taking.

Is there any supplement that is recommended for maintaining health?

A multi-vitamin with minerals may be beneficial in ensuring that important nutrients are being taken daily. As an example, a multi-vitamin may contain folic acid, an important B vitamin that prevents birth defects and heart disease. When selecting a multi-vitamin, select one with no more than 100% of the recommended daily intake for vitamins and minerals. This ensures safety and avoids spending extra money on supplements that may not be worth the cost.

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Commonly used Supplements with Dangerous Side-Effects

Ephedra/Ma Huang: This class of stimulants contains a substance called “alkaloids” that increase cardiac output and muscle contraction, raise blood sugar and open bronchial pathways for easier breathing. Manufacturer’s claims include increased metabolism, aid in weight loss, enhanced athletic performance and alertness and improvements of asthma symptoms. A number of civilian and active-duty deaths have been linked with ephedra use. Reported side effects include nervousness, stomach distress, irregular heartbeat, seizures, high blood pressure, stroke and death.

On December 30, 2003, the Food and Drug Administration announced that ephedra would be the first dietary supplement ever to be banned from public use.

Ephedra-free products: These products have increasingly become more popular due to consumer awareness of the dangers of ephedra. However, herbal mixtures of this form of dietary supplements are still questionable due to safety and health issues. There are many other forms of alkaloids besides ephedra and ma-huang that may pose harm to consumers.

Creatine: This is an amino acid produced in the body. Credible scientific literature indicates that creatine improves high intensity exercises such as sprinting, one rep weight lifting, vertical jumping and repetitive contraction of muscles. However, this product can cause weight gain that adversely effects endurance activities. Side effects of taking creatine include GI distress, nausea, diarrhea and muscle cramping

Androstenedione: A naturally occurring hormone with claims to increase muscle mass and strength and decrease body fat. Side effects include estrogen level increases in men that increase fatty tissue on breasts and the reduction of good cholesterol levels that protect against heart disease.

Protein Supplements: These supplements come in the form of ready to drink fluids, powders and sports bars. **If adequate amounts of protein are consumed through foods, protein supplements will result in fat building rather than muscle building.** Problems with kidney and liver function may also occur as a result of excess protein intake.

Where can I get more information?

- The National Institutes of Health Office of Dietary Supplements
<http://ods.od.nih.gov>
- Food and Drug Administration
<http://www.cfsan.fda.gov/~dms/supplmnt.html>
- Nutritional Ergogenic Agents
<http://www.usuhs.mil/mim/ergopam.pdf>
- Navy Environmental Health Center
<http://www-nehc.med.navy.mil/hp>
- U.S. Army Center for Health Promotion and Preventive Medicine
<http://chppm-www.apgea.army.mil>