DRUG DEMAND REDUCTION QUARTERLY NEWSLETTER JULY 2015

SUPPLEMENT SAFETY

Exposures to supplements (such as vitamins, herbs, protein powders, and botanicals) accounted for more than 100,000 calls to US poison control centers in 2013. Of these calls, more than 8,000 people were reportedly treated in health care facilities. More than 1000 cases were reported to poison control centers as having moderate to severe outcomes. This did not include electrolyte and mineral supplements, which accounted for another 2,500 people treated in health facilities, with 350 moderate to severe reactions and 2 deaths reported to poison control centers. There's a lot of wrong information out there. Even for those who are usually well informed, it can be hard to find reliable information about the safe use and potential risks of dietary supplements. Human Performance Resource Center (HPRC) has prepared a list to help you determine whether your dietary supplement contain ingredients that can be harmful. For more information go to http://hprc-online.org. Also you can contact Drug Demand Reduction Program for information on supplements.

Many dietary supplements contain ingredients that are known stimulants or have stimulant-like effects. That is, they can raise heart rate and blood pressure and otherwise increase nervous system activity, with potentially harmful effects, especially if used before or during exercise. One of the best ways an individual can control his or her intake of stimulants is to read the Supplement Facts panel and other information on the labels and websites of dietary supplement products. However, that means one must be able to recognize ingredients that can act as stimulants. Another way is to recognize that supplements used for certain purposes are more likely to contain stimulants. For example, pre-workout, sexual enhancement, and weight-loss supplements are more likely to contain stimulants. The DoD does not maintain a list of dietary supplements or supplement ingredients that are either "allowed" or "banned." If the FDA or the DEA has not banned or declared an ingredient or dietary supplement product illegal, then DoD does not consider it banned or illegal. However, FDA has found that many dietary supplements—especially weight-loss, bodybuilding, and sexual-enhancement products—contain undeclared drug ingredients which could be potentially harmful and/or produce unwanted results in a urinalysis test . To date FDA has declared two dietary supplements as illegal: ephedra and, DMAA.

Look for "Seals of Approval"

- "CL"- consumer lab
- "USP"- US Pharmacopoeia
- These agencies inspect for:
  - •Harmful contaminants
  - •Standardized doses
  - •Can be properly absorbed and broken down by the body
- Are made by a company with quality control standards in place to ensure safety/purity.

•Safety

Contaminants found in Dietary Supplements:

- Glass, baby powder, anabolic steroids, prescription meds, heavy metals
- In 2013 Consumer Lab tested various whey protein supplements, and found large amounts of heavy metal contamination; including arsenic, mercury, lead, and cadmium
- Can cause nerve damage, lung/bladder/skin cancers, liver and kidney damage

Products known to cause harm

- Ephedra- caused 15,000+ adverse events from insomnia to death (illegal)
- Hydroxycut- confirmed liver and kidney damage
- Creatine- kidney damage
- Comfrey- "herbal ingredient" known to cause severe liver damage
- Caffeine- insomnia, heart rhythm disturbances, weak bones, mood disorders

Supplements must be proven harmful before being recalled; medications must be proven safe before being sold.

Keep in Mind

- Don't decide to take dietary supplements to treat a health condition that you have diagnosed yourself, without consulting your primary care manager (PCM).
- Don't take supplements in place of, or in combination with, prescribed medications without your PCM's approval.
- Check with your PCM about the supplements you take if you are scheduled to have any type of surgical procedure.
- The term "natural" doesn't always mean safe. A supplement's safety depends on many things, such as its chemical makeup, how it works in the body, how it is prepared, and the dose used. Certain herbs (for example, comfrey and kava) can harm the liver.
- Before taking a dietary supplement, ask yourself these questions:
  - What are the potential health benefits of this dietary supplement product?
  - What are its potential benefits for me?
  - Does this product have any safety risks?
  - What is the proper dose to take?
  - How, when, and for how long should I take it?
- If you don't know the answers to these questions, talk to your PCM or email your supplement list to donna.butte@altus.af.mil who will forward to PCM for approval.

Source of Information: HPRC, FDA, DEA, Consumer Lab, US Poison Control