

SPORTS AND FITNESS SUPPLEMENTS

There has been a rising popularity of supplement use in the Coast Guard. Coast Guard health promotion and medical professionals are concerned with the increased use of “sports and fitness” supplements sometimes referred to as ergogenic aids, among Coast Guard members. Webster’s Medical Dictionary, 1995 Edition, defines *ergogenic* as “increasing the capacity for bodily or mental labor by eliminating fatigue symptoms.” Industry-promoting ergogenic aids have many claims that these supplements improve physical performance. While some of the claims have some truth and supporting evidence to them, there are significant health and safety concerns for those using these supplements.

The “supplement industry” boom draws in 12 billion dollars a year. In 1994 federal legislation, the Dietary Supplement Health and Education Act, passed a law to remove dietary supplements from FDA control after intensive lobbying by the supplement industry. Manufacturers now make broad statements in their ads and on their packages without the proof of safety and efficacy required for drug products. However, they can not make any specific medical claims such as “a supplement may be used to treat or prevent disease.” Flawed studies are vigorously cited in support of dubious or even dangerous products. Unfortunately, manufacturers can make claims concerning the purity, safety, and efficacy of supplements to enhance performance without unbiased scientific evidence.

Individuals interested in weight loss, improving health, increasing muscular size or improving athletic performance have been tempted by the claims of these dietary supplements to help them attain their goals. When trying supplements, some individuals often feel stimulated or “energized,” but this is often a “placebo affect.” About 30% of people respond to a placebo sugar pill. Unfortunately, most of these supplements may not have any of the advertised effects on health or performance as promised by the manufacturer. Supplements may have negative and potentially fatal side effects, which include muscle cramping, diarrhea, headaches, tremors, stroke, heart attack, and seizures. The potential for injury or illness is high. Furthermore, there is no conclusive data that supplements help to build muscle or burn fat.

A recent article in *the New England Journal of Medicine* (December 21, 2000) concluded that the use of dietary supplements that contain ephedra alkaloids (sometimes call ma huang) pose a serious health risk to some users. Some of the serious health risks are adverse cardiovascular events, including heart attacks, high blood pressure, and death.

Because of the lack of FDA regulation on the food supplement industry, it is important for individuals to use extreme caution when taking supplements. Nutritional supplements are potent drugs and their dangers are not advertised. They can be marketed without the U.S. Food and Drug Administration review of safety or effectiveness, and many claims are unsubstantiated. The contents or

concentration of active ingredients can differ remarkably from product to product due to the lack of regulatory control.

Scientific research repeatedly indicates that for both performance and health benefit, there is no “magic pill.” Sound training principles, which include strenuous activity, healthy nutrition and adequate rest, result in both performance and health benefits. The following questions should be used to identify nutrition quackery:

- Does it contain a secret ingredient?
- Is the advertisement mostly case histories and testimonials?
- Is it expensive?
- Was any research actually performed?
- Can a copy of the research be reproduced for review?
- Where was it published?
- Have the results been replicated by other researchers?
- What kind of subjects were used?
- Does it tell you not to trust others products?

To avoid nutrition quackery the safest recommendation is to eat a well-balanced meal, exercise regularly, and rest for proper fuel supply to the body and mind. There is no magical secret to living a long, healthy life. The Coast Guard health promotion and medical professionals encourage everyone to eat well-balanced meals and exercise appropriately. Due to the lack of scientific evidence, supplements are not recommended for muscle building or fat burning.

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Regards, FL Ames