DIETARY SUPPLEMENTS

Is Your Health at Risk?

HOT TOPICS

FALL 2000

CURRENT ISSUES FOR ARMY LEADERS

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Message from the Chief of Public Affairs

THIS issue of ***Hot Topics*** reveals that our soldiers' health may be at risk. Despite consumer and physician reports that dietary supplements cause adverse side effects, illness and even death, use of these alternative remedies among soldiers is persistently climbing.

As leaders, we must encourage soldiers to be cautious about taking dietary supplements by balancing the claims with known facts before adding a supplement to their diets. Under current law, manufacturers may sell dietary supplements without proving their safety and effectiveness to the Food and Drug Administration. Many soldiers assume that these products are safe simply because they are sold over the counter, yet most of the supplements have never been tested on human beings.

The lack of reporting guidelines to manufacturers and to the FDA make it impossible for us to know how many soldiers have suffered side effects or died due to use of dietary supplements. However, the FDA has recorded 18 cases of adverse events among service members alone. The dangers are so prevalent that Army Chief of Staff GEN Eric K. Shinseki released a worldwide message to soldiers in August stressing the need for caution when using supplements.

We demand that our soldiers be physically fit and lean. Equally, we must encourage them to adopt safe methods of improving and maintaining their health. In caring for soldiers' well being, we are obligated to warn them about the possible dangers of dietary supplements. Sharing the following facts and warnings with them will help us strengthen the might of our Army, for soldiers' health reflects readiness.

We hope this issue of ***Hot Topics*** helps you inspire soldiers to make educated choices about dietary supplements. Not only can you prevent soldiers from suffering serious side effects, but you might also save a soldier's life.

MG John G. Meyer Jr.
CHIEF OF PUBLIC AFFAIRS

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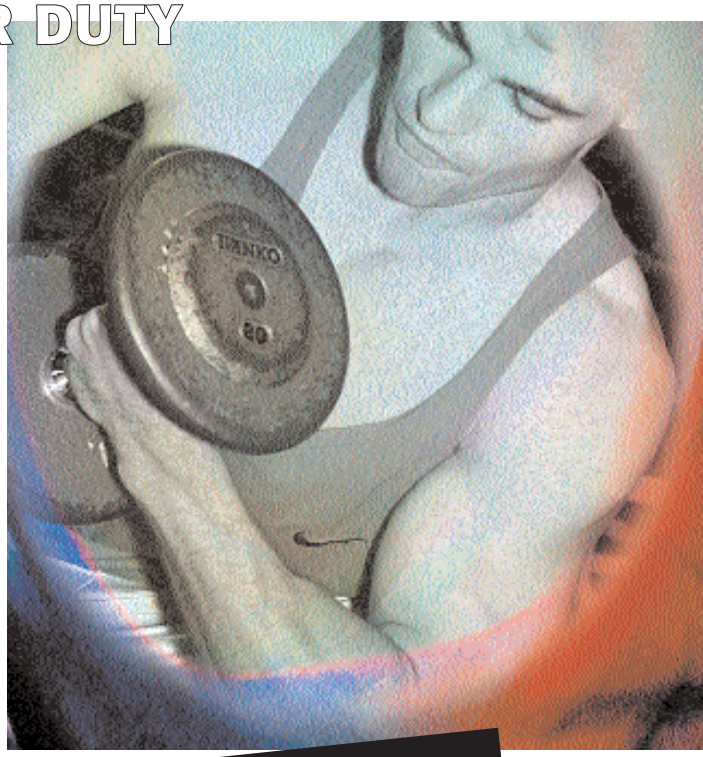
Soldiers' Health IS A Leader's Priority

"**Soldiers are the Army. Their health should be our highest priority.** As leaders, we need to be concerned about soldiers' immediate health so that they are ready to perform their missions. But we also need to be concerned about the long term. We want them to be productive once they retire and to live long and healthy lives. When leaders focus on soldiers' health, it's a win-win situation all the way around."

—LTC Joan M. G. Lyon
CHIEF OF FITNESS AND NUTRITION
U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE

Fit FOR DUTY



SGT Lewis suffered heat stroke and severe muscle damage on mile 10 of a unit road march. SPC Brown was diagnosed with an irregular heartbeat after she collapsed during a run at Airborne School. PFC Nelson died during a physical fitness test.

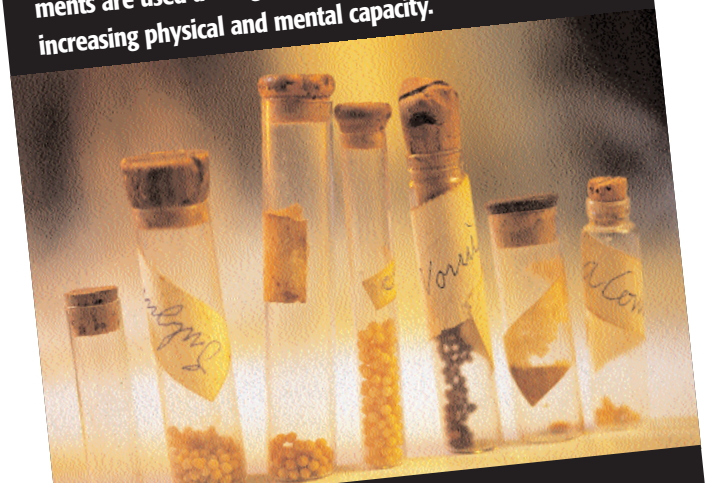
It was not exertion that changed these soldiers' lives, but rather a common goal to be tough and trim. Each soldier took a dietary supplement that contained ephedrine—two wanted to improve their physical performance while one strived to shed unwanted pounds. These soldiers were apparently unaware that ephedrine has been widely reported to cause major illness and death. A front-page story in The Washington Post's July 23 edition reported that 75 lawsuits have been filed against manufacturers of ephedrine-containing dietary supplements since 1994.

Although Lewis and Brown recovered from their injuries, they still lost their military careers. Army Regulation 40-501, "Standards of Medical Fitness," states that soldiers who develop a certain medical diagnosis while on active duty must be referred to a medical and physical evaluation board to determine if they are fit for duty. Some diagnoses, such as heat stroke, can result in medical retirement—even if the condition stems from the side effects of a dietary supplement that the soldier took to improve performance or appearance.

What is a dietary supplement?

DIETARY supplements range from traditional vitamins and minerals to herbals and amino acids, with some of the most popular products being diet pills and bodybuilding formulas. The range of products includes pills, powders, bars, chewables, liquids and even teas.

Supplements are not necessary for good health, but they can help soldiers get 100 percent of the U.S. recommended dietary allowance of vitamins and minerals when their food intake lacks needed nutrients. Some supplements are used as "ergogenic aids" with the hope of increasing physical and mental capacity.



Helpful or HARMFUL?

STORES across the nation are offering a growing number of concoctions that sound a lot like magic potions, with such names as Butcher's Broom, St. John's wort, horsetail and willow. They promise physical strength, tighter tummies, sounder sleep and even happier moods.

Consumers are lured by the assertion that dietary supplements are a natural, drug-free way of improving health. But despite the soaring popularity of these alternative remedies, soldiers should think twice before trusting the claims of some dietary supplements, since they are not tested or approved by the Food and Drug Administration.

"Soldiers have got to be informed before they use dietary supplements, because manufacturers are not required to follow strict standards when composing them," warned LTC Joan M.G. Lyon, chief of fitness and nutrition for the U.S. Army Center for Health Promotion and Preventive Medicine. "Those who write about the pros and cons of dietary supplements say that when you research the information, you frequently find that the claims have not been and cannot be substantiated."

While vitamin and mineral supplements have been proven safe in doses outlined in U.S. dietary reference intakes and recommended dietary allowances, some dietary supplements have been reported to have no benefits at all. Others may interfere with medications, aggravate existing medical conditions or increase surgical risk. Some dietary supplements are not dangerous for everyone, but they are potentially unsafe for specific individuals.

Some dietary supplements are not dangerous for everyone, but they are potentially UNSAFE for specific individuals.

St. John's wort, promoted as an aid for depression, may reduce the effectiveness of oral contraceptives and other medications that are cleared through the liver. Ginko biloba, widely used to enhance memory, can increase the risk of bleeding in individuals using non-steroidal anti-inflammatory drugs. And ephedrine, an herb claimed to increase metabolism and stimulate weight loss, has lead to 140 FDA-documented cases of serious illness from June 1997 to March 1999. Regardless of what supplement a soldier is taking or considering using, research is essential to determine the safety and effectiveness for an individual's specific body type.

Soldiers should not assume that dietary supplements are safe because they are natural and sold over the counter, Lyon said. "And just because they're sold in the post exchange does not mean that the Army is in any way recommending consumption of these products," she said.

The Army and Air Force Exchange Service has reacted to the safety concerns of several unit commanders by posting precautionary notices next to dietary supplement aisles. Although AAFES does manufacture some of its own supplements, their labels state that AAFES uses a technique called "standardization" to ensure that the product contains the amount of active ingredients listed and has been deemed safe. AAFES' supplement labels also include product-specific consumer warnings.

THE LAW

THE 1994 Dietary Supplement Health and Education Act gives manufacturers the freedom to market supplements without proof of safety or testing on human beings. Under the DSHEA, manufacturers may use "structure/function" claims on labels to describe the product's benefits. That is the basis for snappy, provocative words like

MEGA, ADVANCED, ULTRA AND POWER.

Manufacturers that list structure/function claims —which usually lure consumers to buy a particular product—are required to also list the comment: "This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease."

It is impossible to know how many people have experienced problems with dietary supplements, since consumer feedback is voluntary and manufacturers are not required to report consumer complaints to the Food and Drug Administration. There are also few scientific studies on the effects of most dietary supplements, making it more difficult for consumers to decide how a supplement might be beneficial or harmful.

STUDIES SHOW THAT POTENCY AND CONTENTS OF SOME PRODUCTS VARY GREATLY FROM INFORMATION DISPLAYED ON THE LABEL.

Even once a consumer researches a particular supplement, it's almost impossible to trust the potency level listed on the label. In an investigation by the Los Angeles Times, three out of 10 St. John's wort products had half or less of the labeled potency. And an investigation of 20 supplements containing ephedrine, conducted by researchers from the University of Arkansas, revealed inconsistencies of 20 percent or more in half the products—some of which came from the same manufacturing lot.

The U.S. Pharmacopeia, an agency that works closely with the FDA and the pharmaceutical industry, establishes standards for prescription medications, over-the-counter drugs, medical nutrition supplements and medical devices. In addition, the USP is now establishing standards for some herbal preparations and dietary supplements. Look for the "USP" notation on the label. This indicates that the product meets the USP's specific standards of quality, purity, potency and dosage. The USP also develops and maintains clinically relevant drug, nutritional and therapeutics information for health-care professionals and consumers.

The FDA's Center for Food Safety and Applied Nutrition has begun a strategy to implement a science-based regulatory program intended to give consumers confidence in a product's safety, composition and labeling by 2010. Until then, it is up to consumers to research whether a particular supplement is safe or effective.

Guide to DIETARY SUPPLEMENTS

The U.S. Army Center for Health Promotion and Preventive Medicine estimates the following supplements to be widely used or to pose health risks based on information from the Food and Drug Administration. This list is not all-inclusive. Soldiers should not take these or any other supplements without first talking to a health-care provider.

SUPPLEMENT TO **SOLDIERS**, THE OFFICIAL U.S. ARMY MAGAZINE

SPECIAL PULL-OUT

PERFORMANCE-RELATED SUPPLEMENTS

Performance-related supplements are taken in hopes of boosting endurance. There is no such thing as a magic potion that gives instant energy and strength. The best way to achieve top performance is with training and conditioning, a positive attitude, good nutrition and natural ability.

PRODUCT	CLAIM	FACT
Androstenedione *Substance produced by the adrenal glands and testes.*	*Increases energy, strength and muscle development. Decreases recovery time from workouts.*	***Take only under the direction of a physicia*** *with a family history of prostate or breast can avoid taking androstenedione. The Internation Committee considers it an anabolic steroid an banned its use by athletes.*
Arginine, Ornithine or other Amino Acids *Protein components found in most foods.*	*Stimulates production of the human growth hormone (hGH). Increases muscle growth. Decreases body fat.*	*Some studies show possible increased muscle related to hGH but* ***amounts needed to stimula are extremely high and potentially dangerous.***
Beta-Hydroxy-Beta-Methylbutyrate (HMB) *A breakdown of leucine, an essential amino acid.*	*Slows the loss of muscle mass associated with intense training. Improves strength.*	***Human studies are inconclusive about effectiveness****. More research is needed. Found in foods containing protein.*
Carnitine *Involved in the metabolism of fats. Prevalent in animal products.*	*Increases aerobic power and energy level. Decreases body fat.*	*Some performance benefit for repeated, very intens exercise.* ***No evidence it decreases body fat.*** *Body make adequate amounts. Plentiful in animal foods. D not consume any form that is not L-carnitine.*
Choline *Constituent of cell membrane.*	*Decreases body fat. Delays fatigue and promotes faster recovery.*	***No evidence it improves performance or reduces body fat****. Supplements cause diarrhea, foul-smelling intestinal gas and may cause a "fishy" body odor. Foun in egg yolks and meats. Deficiencies are uncommon.*
Coenzyme Q10 (CoQ10) *An enzyme component found in the mitochondria of cells. It is a potent anti-oxidant.*	*Increases energy and cardiac performance.*	***No benefits have been reported in athletes.*** *This substance has been used with therapeutic success in patients with heart disease to increase oxygen utilization and exercise performance. It has also been shown to increase submaximal and maximal exercise capacities in sedentary men.*
Creatine Phosphate *Liver product stored in skeletal muscle and heart. Used for energy production in muscles.*	*Increases muscle growth. Maintains maximal performance longer. Enhances high-intensity performances.*	***Not adequately tested.*** *May work for short, high-intensity workouts, but may decrease performance in prolonged exercise. Athletes with low muscle creatine may benefit, but excess is excreted in urine. "Loading" technique results in weight gain. Does not alter muscle size or structure. High dosages may result in liver and kidney damage.*
Dehydroepiandrosterone (DHEA) *A substance produced naturally by the human adrenal gland.*	*Burns fat. Builds muscle mass. Slows aging.*	***More research is needed to determine whether supplementation is safe and improves performance.*** *Because DHEA is related to testosterone, it has been banned by the International Olympic Committee. High doses may cause virilization (baldness, body hair growth, voice deepening) in women and breast growth in men. May also cause oily skin and acne.*
Gamma-Butyrolactone (GBL) *Converted in the body to the drug gamma-hydroxybutyrate (GHB).*	*Enhances athletic performance. Releases growth hormone. Prolongs life.*	***Potentially life threatening.*** *Converted by the body into gamma-hydroxybutyrate (GHB), a drug banned by the Food and Drug Administration. Side effects of GHB toxicity include coma, slow heartbeat, slow breathing, hypothermia, seizures and vomiting.*
Glandulars *Ground-up animal organ tissue, usually testes, pituitary or hypothalamus.*	*Elevates testosterone levels. Promotes muscle growth.*	***There are no facts to support the claims.***
Glutamine *An amino acid found in high concentrations in animal proteins.*	*Prevents the loss of muscle mass. Enhances the immune system.*	***No evidence that it improves body composition or exercise performance in weight-training athletes.*** *Does aid the immune system in times of stress.*
Glycerol/Glycerin *Sweet, oily fluid found in many foods.*	*Improves endurance by optimizing hydration.*	***Further research needed.*** *When ingested with water, glycerol seems to hold onto the water, thereby delaying the onset of dehydration. No known risks if food-grade glycerol is used and dose does not exceed 1 g/kg per body weight every six hours.*

HERBS

Herbs are often sold in teas and include dried leaves, roots, seeds and occasionally the fruit of a plant. Some herbs may cause allergic reaction. Soldiers should remember that "natural" does not mean safe. Herbs contain potent chemicals that can be poisonous or cause side effects. Manufacturers do not have to test for safety or effectiveness.

PRODUCT	CLAIM	FACT
n. *Anyone cer should al Olympic d has*		
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Echinacea *An herb from the daisy family.*	*Enhances the immune system.*	*Studies indicate that it is effective against the common cold. Most effective if taken at the first sign of a cold and stopped as soon as symptoms fade. Do not take continuously. Some evidence indicates that prolonged use may depress the immune system.* ***Do not use if you have tuberculosis or autoimmune disorders, or are allergic to plants in the daisy family.***
Ephedra (Ma Huang, Chinese Ephedrine and Epitonin) *A potent herb. The active constituent is ephedrine alkaloid.*	*Increases metabolism. Stimulates weight loss.*	***There is no substantial evidence that it is either a safe or effective promoter of weight loss.*** *Adverse side effects include rapid heart rate, increased blood pressure, increased risk of heat injury, depression, agitation, heart attack, stroke, convulsions and death. Caffeine, exercise and dehydration increase the risk of these effects. Avoid ephedrine alkaloids if taking a monoamine oxidase (MAO) inhibitor or medications containing ephedrine, pseudoephedrine or phenylpropanolamine (commonly found in cold, allergy and asthma medicines).*
Ginseng *A plant root.*	*Increases energy and work capacity. Reduces fatigue. Improves memory.*	***May cause allergic reactions. Long-term use may cause high blood pressure, sleeplessness and breast nodules.*** *Although it contains chemicals which may increase endurance and promote recovery, commercial preparations contain little to none of the active compounds. Some studies show favorable result for stress reduction, but no evidence that it improves exercise or sexual performance. Some liquid products contain alcohol.*
Gingko Biloba Extract (GBE) *Leaf extract from the oldest living tree species on earth.*	*Improves circulation to the brain and extremities. Decreases short-term memory loss, headaches, ringing in the ears and dizziness at heights.*	*There is evidence to support the claims when taken consistently. Gingko inhibits the clotting time of blood.* ***Do not use ginkgo if taking a blood thinner such as Coumadin. Individuals on nonsteroidal anti-inflammatory drugs (NSAIDs) for extended periods of time may also have an increased risk of bleeding.***
Guarana *Paste from the crushed seed of a climbing Amazonian shrub, liana paullinia cupana.*	*Boosts energy. Suppresses appetite. Relieves pain.*	***Insufficient evidence to support the claim.*** *Has a high content of a caffeine-like compound. Avoid chronic use. May cause nervousness, tremors or dizziness. Side effects increase dramatically if used in conjunction with ephedra-containing products.*
Kava *A member of the pepper family.*	*Relieves nervous anxiety, stress, insomnia and restlessness.*	*Studies show benefit in relieving mild anxiety and insomnia.* ***Kava may impair your ability to operate machinery. Do not use in conjunction with other antidepressant or anti-anxiety medications.***
St. John's Wort (SJW) *An aromatic herb.*	*Relieves mild depression.*	*Studies indicate benefit in relieving mild depression with fewer side effects than standard antidepressants. Do not use in conjunction with other antidepressant medications.* ***If you are taking any medications, check with your primary health care provider before taking SJW.*** *It may reduce the effectiveness of oral contraceptives and other medications that are cleared through the liver.*
Saw Palmetto *Oil extracted from the berry of the saw palmetto plant.*	*Relieves symptoms associated with prostrate enlargement. Increases urinary flow.*	*Numerous studies support the benefit of reducing symptoms of an enlarged prostrate gland (benign prostrate hyperplasia). Do not use saw palmetto unless you have discussed it with your health care provider.* ***May cause a negative prostate-specific-antigen (PSA) result when it should be positive.***
Yohimbe *Herbal extract derived from the bark of the African tree, pausinystalia yohimbe.*	*Increases testosterone and lean muscle mass. Inhibits fat accumulation in the lower half of the body.*	***Classified by the Food and Drug Administration as an unsafe herb.*** *Effectiveness is unproven. Side effects include anxiety, panic attacks, hallucinations, elevations in blood pressure and heart rate, dizziness, headache and skin flushing. It is a monoamine oxidase (MAO) inhibitor and must be avoided by people who take prescription MAO inhibitors, as well as by those who have hypotension, diabetes, schizophrenia or heart, liver or kidney disease.*

VITAMINS, MINERALS & ETC.

Vitamins, minerals and similar compounds help a person's body get the energy it needs from carbohydrates, proteins and fats. Power packs of vitamin supplements and high doses of individual vitamins and minerals generally have no benefit for performance.

PRODUCT	CLAIM	FACT
B Complex *Water-soluble vitamins found in foods. Not stored in the body. Includes thiamin, riboflavin, niacin, folic acid, biotin, pantothenic acid, B6 and B12.*	*Increases performance and energy.*	***No facts to support the claim.*** *Although exercise may increase the body's need for vitamins, these needs are easily met by increased food intake.*
B-12 Vitamin *Water-soluble vitamin that is essential in cell metabolism, especially in the gastrointestinal tract, bone marrow and nervous tissue.*	*Increases performance and energy.*	***No facts to support the claim.*** *The body contains an adequate supply for several years. Needed only by strict or long-time vegetarians, or for certain malabsorption conditions. Found in animal product sources such as fish, milk and eggs.*
Chromium Picolinate *Essential element for metabolism of carbohydrate, protein and fat. Picolinate is a by-product of the amino acid tryptophan.*	*Stabilizes blood sugar. Increases muscle mass. Burns body fat.*	***No reliable studies to support performance enhancement.*** *Helps action of insulin by processing blood sugar. Deficiency results in impaired sugar tolerance and increased risk of heart disease. Exercise increases chromium losses but adequate chromium is available in the diet. Found in beer, oysters, mushrooms, pork, chicken, whole-grain cereals, prunes and apples with skin.*
Copper, magnesium and zinc *Essential minerals for optimal physiologic functioning.*	*Improves metabolism, muscle strength and endurance.*	***At high doses, causes gastrointestinal disturbances, mineral imbalances and toxicity.*** *Supplementation is only necessary when dietary intake is insufficient. If insufficient levels are suspected, contact your health care provider.*
L-Cartinine *A vitamin-like compound that assists in transporting free fatty acids into the mitochondria of muscle cells for use as fuel.*	*Burns fat. Delays onset of fatigue. Improves aerobic exercise and endurance.*	***Little to no benefit reported, but not harmful at recommended doses.*** *Possible side effects include nausea, vomiting and stomach cramps. It is important to remember that the "L" isomer is the active form. If you ingest the "D" form, you can create a carnitine deficiency in yourself.*
Pangamic Acid (Vitamin B15) *Not a true vitamin. Mixture of calcium compound and gluconate. May contain a variety of compounds.*	*Improves endurance, aiding oxidative metabolism by increasing muscular creatine phosphate and glycogen.*	*No evidence to support the claim.* ***Several of the compounds marketed under this name are potentially hazardous.***
Pantothenic Acid *The physiologically active form of conenzyme A (co-A), which is involved in many metabolic pathways.*	*Improves aerobic capacity. May be an "anti-stress" vitamin.*	***No benefits have been reported in humans.*** *No side effects have been reported. More research is needed.*
Phosphate Salts *Essential mineral found in a variety of foods. A component of oxygenating enzymes and buffering systems.*	*Delays onset of fatigue. Improves oxygen transport to muscles. Improves maximal aerobic capacity.*	***Research results are ambiguous regarding impact on performance.*** *Gastrointestinal intolerance is likely. The phosphate content of soft drinks is high. Phosphate loading is not advised for people who routinely drink carbonated beverages, because of the high phosphate levels in soft drinks.*
Vanadyl Sulfate *Trace element vanadium bound as a sulfur salt.*	*Builds lean muscle mass. Enhances performance.*	***No evidence to support enhanced body composition in weight-training athletes.*** *Insufficient evidence to support performance-enhancing effect. May cause gastrointestinal upset.*
Vitamin C *Water-soluble vitamin and powerful antioxidant. Essential for skin and tissue integrity, as well as immune function. Found in many fruits and vegetables.*	*May accelerate recovery from muscle soreness and minimize heat stress.*	***Research indicates that 500 to 1000 mg per day may reduce upper respiratory tract infections after endurance events such as marathons.*** *No side effects noted at these doses, but sensitive people may develop intestinal distress or irritation. Supplementation is necessary only if dietary intake is insufficient.*
Vitamin E *Fat-soluble vitamin and powerful antioxidant.*	*May accelerate recovery from muscle soreness and minimize heat stress.*	***Research indicates that 400 mg per day beginning three weeks prior to an event may be beneficial.*** *Supplementation is necessary only if dietary intake is insufficient.*

STATISTICS

IN a 1997–1998 survey of 2,215 trainees entering the Special Forces Assessment and Selection School at Fort Bragg, N.C., and the Ranger Course at Fort Benning, Ga., 64 percent of soldiers reported current use of dietary supplements. Twenty-nine percent reported use of a pro-performance, amino acid or protein supplement.

In a 1999 study of Army rangers, 47 percent reported current use of dietary supplements. Twenty-nine percent reported use of protein supplements, 18 percent reported use of ephedrine and 16 percent reported use of creatine.

The Office of the Surgeon General implemented policy in May instructing health-care providers to include dietary supplement use in a patient's medical record. This will help providers evaluate whether a soldier is at surgical risk, or if medications and food might interact with supplements the soldier is taking or considering using. Providers will also be able to report consumer problems to the Food and Drug Administration.

The following facts about the use of supplements among Americans are from the Department of Military and Emergency Medicine, Uniformed Services University of the Health Sciences in Bethesda, Md.

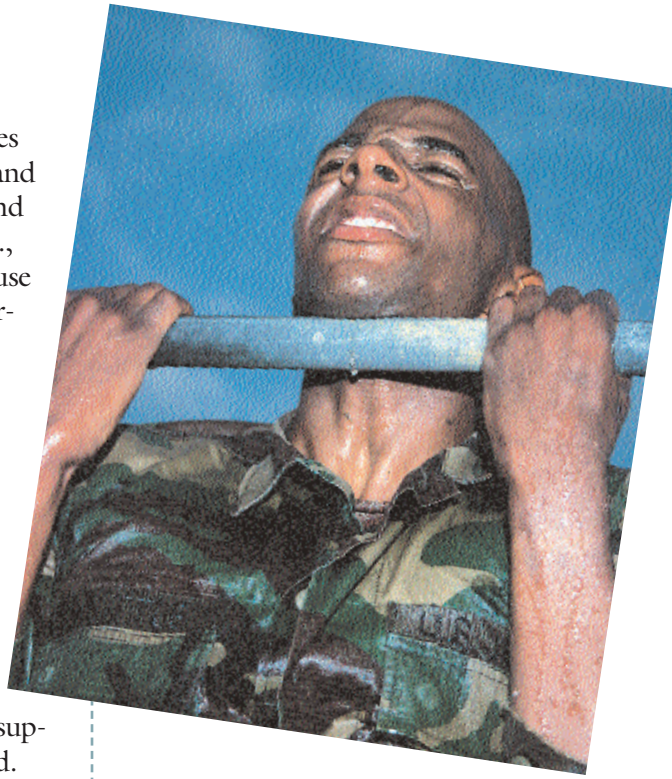
In 1994, 30 to 50 percent of athletes used supplements.

In 1999, 50 percent of the population took supplements.

In 2000, 20 percent of parents give supplements to their children.

The most common dietary supplements used are multivitamins and minerals, amino acids and protein supplements.

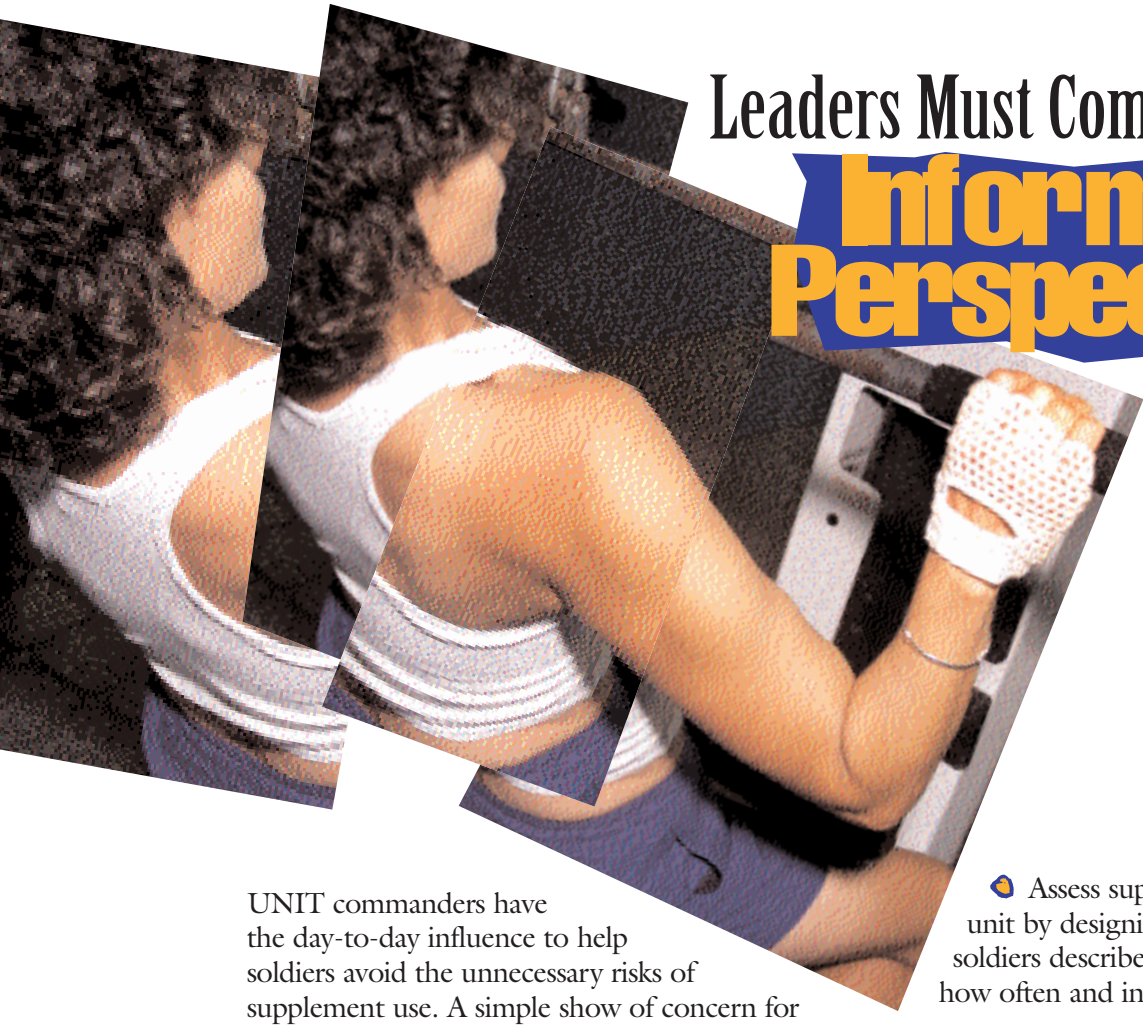
Americans take dietary supplements to lose weight, build muscle and improve performance.



Dietary supplements touted as performance-enhancing or weight-loss aids provide little if any benefit beyond that attainable with a safe, effective physical training program and a healthy diet.

—Excerpt from Army Chief of Staff GEN Eric K. Shinseki's worldwide message to soldiers warning them about the potential dangers of dietary supplements.

Leaders Must Come from an Informed Perspective



UNIT commanders have the day-to-day influence to help soldiers avoid the unnecessary risks of supplement use. A simple show of concern for how and if soldiers use supplements can lead them to question their diets and workout programs.

The increasing use of supplements makes it important for commanders to be educated about the risks of supplements if their encouragement for caution is to be equal to the advice given freely in health food stores and by manufacturers. Leaders who want their soldiers to trust in their knowledge that supplements may cause health problems must speak from an informed perspective. Commanders should:

- Be aware of the kinds of dietary supplements soldiers might be taking. Candidly ask soldiers if they use supplements and find out which kinds.
- Assess supplement use in the unit by designing surveys that let soldiers describe what they use, why, how often and in what quantities.
- Know what products are available locally, such as in post exchanges and nearby businesses.
- Make nutrition education a part of unit training.
- Form a partnership with on-post health-promotion teams that can educate soldiers or provide individual counseling.
- Employ the help of the unit's master fitness trainer, who is familiar with basic nutrition and can advise soldiers on maintaining a healthy lifestyle through exercise and a balanced diet.
- Create a database of factual information about dietary supplements and make it available to unit leaders and trainers.

Encouraging Healthy Choices

Commander's Checklist

LEADERS can help soldiers make informed decisions before taking a dietary supplement by encouraging them to:

- **Research** before buying.
- **Obtain information from reliable sources**, such as health-care providers.
- **Seek information** other than what is provided in health food stores or by manufacturers, both of which are driven by profit motives.
- **Be wary of articles in fitness, health and nutrition magazines** that might be paid advertisements.
- **Read the label.**
- **Avoid products that do not include dosage** recommendations and a lot number or expiration date on the label.
- **Take only the recommended dose** outlined on the label. Taking more of a supplement than the label directs may cause medical problems and will not increase benefits.
- **Beware of phrases like "miracle cure" and "latest breakthrough."** If these claims were true they would be announced in the news media and be widely used by health-care professionals.
- **Make health-care providers aware** of supplement use.
- **Avoid supplements during pregnancy** or if breast feeding, since some nutritional supplements can be transferred by breast milk.
- **If using a medication, check with a health-care provider before taking a supplement**, since some products negatively interact with medications.
- **Choose supplements that are manufactured by large or well-known companies** that traditionally have strict quality control.
- **Keep in mind that reporting side effects is voluntary** and the absence of information does not mean that a particular product or ingredient has not been associated with problems.
- **Remember that there are no current regulations that govern the serving size or amount** of ingredients in a supplement.

REPORTING PROBLEMS

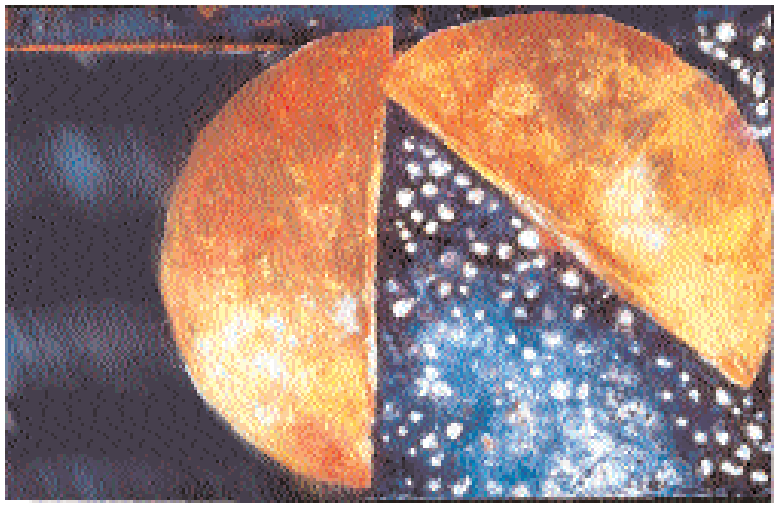
CONSUMERS are not required to report adverse reactions or problems with dietary supplements to the Food and Drug Administration. However, since the FDA cannot pull a supplement off the shelf without proving its danger, consumer reports can help identify potential problems, which would lead to further investigation and public action.

Leaders and soldiers who think they or someone they know has experienced problems with dietary supplements should report complications to the FDA's MedWatch. Forms are available at **www.fda.gov/medwatch**. The form requests clinical information from the medical record and physician, but consumers who wish to exclude their doctor may complete the form themselves. Reports can also be made by calling the FDA's Office of Emergency Operations at (301) 443-1240.

Side effects should also be reported to the product manufacturer by calling the toll-free number listed on the label.

Things to report to both the manufacturer and the FDA include:

- **admission to a hospital or a hospital stay that lasted longer than expected;**
- **a permanent disability;**
- **a birth defect;**
- **the need for medical or surgical care to prevent permanent damage;**
- **a life-threatening situation; and**
- **death.**



Resources

U.S. Army Center for Health Promotion and Preventive Medicine—Can act as a consultant to soldiers looking for information on dietary supplements, including narrow searches on specific products. USACHPPM also has an education manual entitled "Nutritional Supplements: A Basic Guide." Updated in October, the manual is intended to be a reference for health-care providers and soldiers seeking basic information. It is available through unit document-control officers. Call the chief of fitness and nutrition, LTC Joan M.G. Lyon, at (DSN) 584-4656 or (410) 436-4656.

Armywide medical treatment facilities—MTFs have personnel who specialize in physical training, healthy eating habits, weight management and dietary supplements. Contact your local clinic or wellness center for information.

The Center for Food Safety and Applied Nutrition—Part of the Food and Drug Administration, CFSAN offers a broad range of information, such as FDA guides to supplements and safety warnings about specific products. Click on **http://vm.cfsan.fda.gov**, go to "Program Areas," then "Dietary Supplements."

Food and Drug Administration—Consumers with questions about a particular dietary supplement may call the FDA's toll-free number at (888) INFO-FDA.

Special Nutritionals Adverse Event Monitoring System—Run by CFSAN, this system allows consumers to check out problems reported about specific products, manufacturers and ingredients through the FDA's MedWatch Program, FDA field offices and federal/state/local public health agencies. The most recent report lists 2,621 side effects for 3,451 products. Click on **http://vm.cfsan.fda.gov/~dms/aems.html.**

Office of Dietary Supplements—Part of the National Institute of Health, ODS offers a full description of what dietary supplements are. Their website shares tips about giving supplements to children and includes fact sheets. Click on **http://odp.od.nih.gov/ods.**

More helpful sites:

www.usuhs.mil/mim/ergopam.pdf
www.brooks.af.mil/web/af/altmed/HOMEFRAME.htm
www.hooah4health.com
http://chppm-www.apgea.army.mil/dhpw

Leaders Can Make a Difference

EVERY soldier's body is unique. By promoting regular exercise and healthy eating habits, leaders can help soldiers understand and care for the needs of their specific body type. Soldiers need to know that simply enhancing their nutritional intake can help them reach the same goals advertised by manufacturers of dietary supplements. Leaders can share these tips with soldiers:

- **Eat** a variety of foods. It will give soldiers all the nutrients they need for high performance and health.
- **Use** the food guide pyramid. A diet planned according to the pyramid provides the right amount of vitamins, minerals, carbohydrates, fats and protein for athletes and nonathletes alike.
- **Drink** one to two cups of fluid for each 20 minutes of exercise. Soldiers who are in intense training that lasts longer than 90 minutes and does not allow opportunity for a light snack should consider a sports drink that provides some calories and electrolytes.
- **Eat** the right number of calories. Soldiers desiring to lose weight should aim for a one- to two-pound loss per week. Seriously limiting calories to decrease body fat can put females at risk for developing osteoporosis.
- **Don't** sacrifice carbohydrates for protein or fat. Soldiers may experience fatigue during successive days of intense training and exercise if carbohydrate stores are not sustained.
- **Don't** overdo any nutrient. Just because a little of something is good doesn't mean that a lot of it is better. Excess can harm performance and health.
- **Don't** use nutritional supplements in place of food.

BOTTOM LINE *Good health is an attitude.*