ExerciseAndAthleticPerformance-Consumer

url: https://ods.od.nih.gov/factsheets/ExerciseAndAthleticPerformance-Consumer/  
  
  
Dietary Supplements for Exercise and Athletic Performance  
Fact Sheet for Consumers  
  
This is a general overview. For more in-depth information, see our health professional fact sheet.  
  
What are dietary supplements for exercise and athletic performance and what do they do?  
If you get regular exercise and especially if you re an athlete and compete in sporting events you know that a nutritionally adequate diet and plenty of fluids are important for maximizing your physical performance. You may wonder, however, if dietary supplements could help you train harder, improve performance, or gain a competitive edge.  
  
This fact sheet describes what s known about the effectiveness and safety of many ingredients in dietary supplements that are promoted to improve exercise and athletic performance. These products are sometimes called ergogenic aids, but this fact sheet simply refers to them as performance supplements. Sellers of these supplements might claim that their products improve strength or endurance, help you achieve a performance goal more quickly, or increase your tolerance for more intense training. They might also claim that their supplements can help prepare your body for exercise, reduce the chance of injury during training, or assist with recovery after exercise.  
  
Performance supplements cannot substitute for a healthy diet, but some of them may have value, depending on the type and intensity of your activity. Other supplements don t seem to work, and a few might be harmful.  
  
If you re thinking about taking a performance supplement, talk to your health care provider. If you have a trainer or coach with knowledge of sports medicine, ask them about performance supplements. Talking to an expert is important if you re a teenager or have any medical conditions. It s also important to find out whether medications you take might interact with the performance supplements you re considering.  
  
What are ingredients in supplements for exercise and athletic performance?  
Performance supplements can contain many ingredients like vitamins and minerals, protein, amino acids, and herbs in different amounts and in many combinations. These products are sold in various forms, such as capsules, tablets, liquids, and powders.  
  
This fact sheet describes ingredients in performance supplements below in alphabetical order. You ll learn whether each ingredient is effective and safe and get expert advice about using it. Keep in mind, however, that many performance supplements in the marketplace contain more than one ingredient, and ingredients can work differently when they re combined. Because most ingredient combinations have not been studied, we don t know how effective or safe they are in improving performance.  
  
You may be surprised to learn that makers of performance supplements usually don t carry out studies in people to find out whether their products really work and are safe. When studies on performance supplement ingredients and ingredient combinations are done (mainly by researchers at colleges and universities), they often involve small numbers of people taking the supplement for just a few days, weeks, or months. Much of the research is done in young healthy men, but not women, middle-aged and older adults, or teenagers. And often, studies haven t looked at the use of supplement ingredients or combinations in people involved in the same athletic activity as you. For example, the results from a study in weightlifters might not apply to you if you are a distance runner.  
  
How does the U.S. government regulate dietary supplements for exercise and athletic performance?  
The U.S. Food and Drug Administration (FDA) regulates dietary supplements for exercise and athletic performance differently from prescription or over-the-counter drugs. As with other dietary supplements, FDA does not test or approve performance supplements before they are sold. Manufacturers are responsible for making sure that their supplements are safe and that the claims on the product labels are truthful and not misleading.  
  
When FDA finds an unsafe dietary supplement, it can remove the supplement from the market or ask the supplement maker to recall the product. FDA and the Federal Trade Commission can also take action against companies that make false performance-improvement claims about their supplements; add pharmaceutical drugs or other adulterants to their supplements; or claim that their supplements can diagnose, treat, cure, or prevent a disease.  
  
For more information about dietary supplement regulations, see the Office of Dietary Supplements (ODS) publication, Dietary Supplements: What You Need to Know.  
  
Can dietary supplements for exercise and athletic performance be harmful?  
Like all dietary supplements, performance supplements can have side effects and might interact with prescription and over-the-counter medications. Many of these products contain multiple ingredients that have not been adequately tested in combination with each another.  
  
Interactions with medications  
Some dietary supplements for improving exercise and athletic performance can interact or interfere with other medications or supplements. For example, ginseng can reduce the blood-thinning effects of warfarin (Coumadin). Cimetidine (Tagamet HB, used to treat duodenal ulcers) can slow the removal of caffeine from the body and thus increase the risk of side effects from caffeine consumption.  
  
If you take dietary supplements and medications on a regular basis, tell your health care provider.  
  
Fraudulent and adulterated products  
FDA warns that some products marketed as dietary supplements to improve exercise and athletic performance might contain inappropriate, unlabeled, or unlawful stimulants, steroids, hormone-like ingredients, controlled substances, prescription medications, or unapproved drugs. Using these tainted products can cause health problems and disqualify athletes from competitions.  
  
FDA prohibits certain ingredients that some performance dietary supplements used to contain. These prohibited ingredients include androstenedione, dimethylamylamine (DMAA), and ephedra. Not only are these ingredients unsafe, but there is no scientific evidence showing that they can improve performance.  
  
Sellers of some performance supplements ask certain companies to evaluate their products and certify that they are free from many banned ingredients and drugs. The major companies providing this certification service are NSFexternal link disclaimer through its Certified for Sport program, Informed-Choice,external link disclaimer and the Banned Substances Control Group.external link disclaimer Products that pass these tests may carry the certifier s official logo and are listed on the certifier s website.  
  
Choosing a sensible approach to improving exercise and athletic performance  
If you are a competitive or recreational athlete, you will perform at your best and recover most quickly when you eat a nutritionally adequate diet, drink enough fluids, are physically fit, and are properly trained. Only a few dietary supplements have enough scientific evidence showing that they can improve certain types of exercise and athletic performance. Athletes might use these supplements, if interested, if they already eat a good diet, train properly, and obtain guidance from a health care provider or sports-medicine expert.  
In most cases, only adults should use performance supplements. The American Academy of Pediatrics, for example, states that performance supplements don t improve the abilities of teenage athletes beyond those that come from proper nutrition and training.  
  
Where can I find out more?  
For general information on dietary supplements to improve performance  
ODS Health Professional Fact Sheet on Dietary Supplements for Exercise and Athletic Performance  
For more advice on choosing dietary supplements  
ODS Frequently Asked Questions: Which brand(s) of dietary supplements should I purchase?  
For information about building a healthy dietary pattern  
Dietary Guidelines for Americansexternal link disclaimer  
MyPlateexternal link disclaimer  
Disclaimer  
This fact sheet by the National Institutes of Health (NIH) Office of Dietary Supplements (ODS) provides information that should not take the place of medical advice. We encourage you to talk to your health care providers (doctor, registered dietitian, pharmacist, etc.) about your interest in, questions about, or use of dietary supplements and what may be best for your overall health. Any mention in this publication of a specific product or service, or recommendation from an organization or professional society, does not represent an endorsement by ODS of that product, service, or expert advice.