

COACH CLIFF UNIVERSITY

Supplements for Swimmers

- What are Sports Supplements (aka ergogenic aids)?
 - Any product used to enhance athletic performance that may include:
 - Vitamins & Minerals
 - Amino Acids, Herbs, or Botanicals
 - or any concentration, extract, or combinations of these

- Sports supplements are considered dietary supplements.
- Dietary supplements do not require FDA approval before going on the market.
- Supplement manufacturers are supposed to follow good practices to ensure quality and safety.

● What Supplements Aren't

Products classified as dietary supplements are not required to meet any Food and Drug Administration (FDA) standards. There are no regulations that guarantee the safety or purity of something sold as a supplement. Therefore, supplements are not:

- Required to meet the same safety requirements as over-the-counter or prescription drugs or food ingredients
- Held to specific manufacturing standards
- Guaranteed to meet product potency or purity ratings
- Required to prove the effectiveness of any health claim they make
- Required to meet safety or efficacy testing prior to going to the market

- Anabolic Steroids are not supplements
 - This is not a discussion about steroids, but unless a doctor prescribes them...don't use them.

- How do you know if something is a supplement?
 - If the packaging has “Supplement Facts” on the label, as opposed to “Nutrition Facts”, then you are dealing with a supplement.

- Common and relatively innocuous supplements...if taken properly
 - Multivitamins
 - Iron Supplements
 - Fish oils

- Will supplements make you/your child a better athlete?
 - Sports supplements aren't test on teens and kids.
 - Studies on adults show that the claims of most supplements are weak...at best.

- **Common Supplements Used by Teens**

- **Androstenedione (Andro) and DHEA**

Androstenedione (also known as andro) and dehydroepiandrosterone (also known as DHEA) are prohormones or "natural steroids" that can be broken down into testosterone. When researchers studied these prohormones in adult athletes, DHEA and andro did not increase muscle size, improve strength or enhance performance.

The side effects of these "natural" steroid supplements like DHEA and andro aren't well known. But experts believe that, when taken in large doses, they cause effects similar to stronger anabolic steroids.

What is known is that andro and DHEA can cause hormone imbalances in people who use them. Both may have the same effects as taking anabolic steroids and may lead to dangerous side effects like testicular cancer, infertility, stroke, and an increased risk of heart disease. As with anabolic steroids, teens who use andro while they are still growing may not reach their full adult height. Natural steroid supplements can also cause breast development and shrinking of testicles in guys.

- **Common Supplements Used by Teens**

- **Creatine**

Creatine is already manufactured by the body in the liver, kidneys, and pancreas. It also occurs naturally in foods such as meat and fish. Creatine supplements are available over the counter, and teens make up a large portion of the supplement's users.

People who take creatine usually take it to improve strength, but the long-term and short-term effects of creatine use haven't been studied in teens and kids. Research in adults found that creatine is most effective for athletes doing intermittent high-intensity exercise with short recovery intervals, such as sprinting and power lifting. However, researchers found no effect on athletic performance in nearly a third of athletes studied. Creatine has not been found to increase endurance or improve aerobic performance.

The most common side effects of creatine supplements include weight gain, diarrhea, abdominal pain, and muscle cramps. People with kidney problems should not use creatine because it may affect kidney function. The American College of Sports Medicine recommends that people younger than 18 years old do not use creatine. If you are considering using creatine, talk with your doctor about the risks and benefits, as well as appropriate dosing.

- Common Supplements Used by Teens

- Fat Burners

Fat burners (sometimes known as **thermogenics**) were often made with an herb called ephedra, also known as ephedrine or ma huang, which acts as a stimulant and increases metabolism. Some athletes use fat burners to lose weight or to increase energy — but ephedra-based products can be one of the most dangerous supplements. Evidence has shown that it can cause heart problems, stroke, and occasionally even death.

Because athletes and others have died using this supplement, ephedra has been taken off the market. Since the ban, "ephedra-free" products have emerged, but they often contain ingredients with ephedra-like properties, including bitter orange or country mallow. Similar to ephedra, these supplements can cause high blood pressure, heart attack, stroke, and seizures.

Many of these products also contain caffeine, along with other caffeine sources (such as yerba mate and guarana). This combination may lead to restlessness, anxiety, racing heart, irregular heart beat, and increases the chance of having a life-threatening side effect.

● USA Swimming's Position on Supplements

In an effort to maintain the integrity of our sport and the safety of our athletes, USA Swimming has taken a proactive role in making athletes and coaches more aware of the risks involved in the use of commercially available dietary supplements that have been linked to enhancing performance. Along with the US Anti-Doping Agency (USADA), USA Swimming considers dietary supplements "take at your own risk," placing full responsibility for any effects and repercussions on the athlete.

Claims made by the manufacturers/ distributors of dietary supplements regarding the effectiveness of their products are not strictly regulated by the US Food and Drug Administration. Any commercial dietary supplement is susceptible to containing substances that may appear on the Prohibited Substance list(s) of FINA and/or the IOC. The potential exists for commercial supplements to contain substances that do not appear on the product's list of ingredients (see Dietary Supplement Health and Education Act for more information). Statistics indicate that in some cases, the use of legal dietary supplements has been linked to positive test results for prohibited substances in athletics.

The choice to use a dietary supplement is the sole responsibility of the athlete and one that should not be made in haste. An athlete is advised to weigh the options heavily, consider the consequences, and take responsibility for his/her actions.

● NLSC Coaching Staff's Position on Supplements

It is the position of the NLSC Coaching Staff, and NLSC Policy, that NLSC athlete members should not consume Dietary/Performance supplements. We do acknowledge that there may be instances when a Doctor or Nutritionist may prescribe swimmers one or more of the following supplements to ensure their health:

- A daily multi-vitamin
- An Iron supplement
- A carbohydrate/protein/essential oil supplement

There are always going to be claims by supplement companies to the contrary, but there is no supplement, with any ingredient(s) that you can't get from a normal, healthy diet, that can legally help you to perform better.

Anyone who is giving credit to a substance, as opposed to their own hard work, for their athletic performances, has a problem. In fact, when you rely on any substance (other than food and water) to enhance your performance, you have a substance abuse problem. Anyone who is honest with them self will see the truth in this statement.

There is no quick fix, special potion, or magic wand to improving your swimming performance. You have to work hard to gain any improvement worth being proud of. If you are looking to supplement your swimming performance be sure to do the following:

- Attend every practice offered to you, swim every set as given, with your best physical and mental effort.
- Listen to, and take to heart, the feedback offered by your coach(es). Use their knowledge and experience to enhance your performance.
- Maintain a healthy diet, stay hydrated, and get plenty of rest.