

Evaluating Supplements

For legality, efficacy, and safety

1. Does the product have a Nutrition Facts label or a Supplements Facts label?

Nutrition Facts → This product is considered a food and is regulated by the FDA. There are no NCAA rules restricting foods. You should generally feel comfortable with your athlete using this product. ✓

CAUTION: According to the FDA, "There are currently no definitive guidelines for protein powders, and a product's category (and, thus, label) depends on how the manufacturer intends the product to be used." Energy drinks and other items may fall into a similar gray area. Proceed carefully, as companies can use a Nutrition or Supplement Facts label in these instances.

Supplement Facts → Red Flag. There is no regulation of supplements before they hit the shelves. You cannot be sure that what's listed on the label is what's actually in the product, or that the product is not contaminated. Proceed to step #2 in evaluating this product. ⚑

2. Does the product have any quality assurances?

Yes → Certain third-party organizations can help with identifying different aspects of a product's quality. Informed Sport tests for banned substances, USP confirms that the label is accurate to what is actually in the product, and NSF does both. While there is never a 100% guarantee that a supplement is safe, if the product aligns with the athlete's goals, you should generally feel comfortable with your athlete using it. If certified, the product should bear the label as well as be listed on the company's website. ✓

CAUTION: Just because one product is certified, does NOT mean all of a company's products are. Additionally, if a company is producing a product with a banned substance, there is higher risk of contamination in their other products. Always check for expiration dates of product certifications. They do expire and companies don't always continue to test products.



No → Red flag. With no quality assurance, there is a higher risk of contamination and mislabeling of ingredients/amounts. Highly discourage use of this product by your athlete. Consider using resources below as additional support to convince your athlete to discontinue use. ⚑

"If the product has a Supplements Facts label, and no 3rd party certification, the rest of my research is usually done as a means to provide the athlete with a solid reason to discontinue use."

3. Does the product have any proprietary or herbal blends?

Proprietary blends → Red flag. These are protected company formulas so they may omit certain ingredients, and the amounts of individual ingredients tend not to be listed. Highly discourage use by athlete. ⚑

Herbal ingredients → Red flag. Herbs may be at a higher risk of contamination, especially depending on their country of origin - which is often not listed. Herbal ingredients tend to have little research to support their use, and can often interact with other herbs, foods, and medications. Highly discourage use by athlete. ⚑

Natural Medicines Database (NMD) is a fantastic resource to evaluate ingredients you don't recognize on a supplement label - a NMD membership is a CPSDA member benefit!

Other factors to consider...

Even if a product is deemed to be safe for an athlete to use, always evaluate these other key components of supplement use.

4. Is the product permissible to provide per NCAA rules?



For those working in a collegiate setting, always evaluate whether the product is permissible to provide to the athlete. If it is not, the athlete will need to purchase it on their own if they want to use it. Reference NCAA guidelines - attached separately.

5. What is the effectiveness of the product and its ingredients?

Questions to consider:

- For what purpose does the athlete intend to use the supplement?
- Is there research to support its effectiveness?
- What dosage/dosing protocol is best?
- Are they able to get the desired nutrients through food?
- What is the bioavailability of certain nutrients found in this product?

In addition to Natural Medicine's Database, NIH has a great resource for evaluating some of these factors: <https://ods.od.nih.gov/factsheets/list-all/>



6. What does the product cost?

Often times, athletes choose a supplement because a friend or teammate is taking it, with no regard for other options or the price tag. Especially if working with students, it may be in their best interest to point them towards a cheaper option or discuss food options that would provide the same benefits for less money.

Keep an eye out for MLM supplement companies that are designed to generate big profits through multiple purchases. Student-athletes should never be purchasing such products through a coach or support staff member.

7. What is the athlete's complete dietary picture?

Are they taking any other supplements?

If so, you'll want to look at the total amounts of certain nutrients that the athlete is getting. How does it compare to the RDA? It can be easy to reach levels much higher than recommended Upper Limits (UL) when using multiple products.

Are they trying to gain or lose weight?

If so, you'll want to evaluate the calories and macronutrient profiles of the supplement, if applicable, to ensure that the product appropriately supports their goals around training and performance.

**If an athlete is using multiple supplements, always keep an eye out for possible interactions between ingredients or between a supplement and food/medication that the athlete may be using.

Other helpful resources → drugfreesport.com taylorhooton.org nsfsport.com informed-choice.org consumerlab.com quality-supplements.org

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Evaluating Supplements

In a Collegiate Athletics Setting

NCAA Banned Substances

There is no COMPLETE LIST of banned substances. Below are some examples of drugs within each banned class, as well as clues to look for. Any substance that is chemically related to the class, even if it is not listed as an example, is also banned. Additional examples of banned substances can be found at www.ncaa.org/drugtesting.

Stimulants

Amphetamine (Adderall); caffeine (guarana); cocaine; ephedrine, etc.
Look out for ingredients ending in "ine" as this is a common characteristic of this class of drugs. Exceptions: phenylephrine and pseudoephedrine are not banned.

Anabolic Agents

Androstenedione; clenbuterol; DHEA (7-Keto); methandienone; testosterone; trenbolone, etc.
Look out for ingredients ending in "one" and "ol" as well as numbers leading the chemical name.

Alcohol & Beta Blockers

(banned for rifle only): alcohol; atenolol; metoprolol; propranolol; timolol; etc.
Look out for ingredients ending in "ol".

Diuretics & Other Masking Agents

bumetanide; chlorothiazide; furosemide; hydrochlorothiazide; spironolactone; etc.
Look out for ingredients ending in "ide".

Street Drugs

heroin; marijuana; THC; synthetic cannabinoids (spice, K2, JWH-018, JWH-073)

Peptide Hormones & Analogues

growth hormone (HGH); human chorionic gonadotropin (HCG); erythropoietin (EPO)
Look for ingredients ending in "one".

Anti-estrogens

anastrozole; tamoxifen; formestane; androstatrienedione; clomiphene
Look for ingredients ending in "ole" and "ane".

Beta-2 Agonists

bambuterol; formoterol; salbutamol; salmeterol.
Look for ingredients ending in "ol".



Caffeine in moderate amounts is not banned. However, urine levels exceeding 15 micrograms per milliliter (corresponding to ingesting about 500 milligrams) would result in a positive drug test. Be wary of athletes using multiple products or using products in conjunction with coffee, energy drinks, etc.

Also keep in mind that everyone metabolizes caffeine differently, so 500 mg may be a problematic amount for one athlete, yet not for a teammate who ingested the same amount. Always err on the side of caution.

NCAA Permissible vs. Impermissible

Permissibility refers to whether an Athletic department is allowed to provide a dietary supplement to athletes or not. All banned substances are impermissible, but not all impermissible ingredients are banned.

Permissible

Conventional food items with a Nutrition Facts label can be provided.

As mentioned in Step 1 of Evaluating Supplements, use caution with certain products like protein powders and energy drinks.

If the product has a **Supplement Facts** label, it must fall into one of the following categories:

Vitamin or Minerals

Carbohydrate Boosters

Omega-3 Fatty Acids

Energy Bars

Carbohydrate/Electrolyte Drinks



Impermissible

Impermissible substances are those that an athlete may use (without fear of failing a drug test), but the Athletic Department may not provide them to the athlete. They must be purchased separately by the athletes themselves.

There is no complete list of impermissible substances, but below are listed some of the more common impermissible substances that athletes may ask about.

Another way to think about impermissible substances is: if a product has a Supplement Facts label, does everything on the label fit into a permissible category? If not, it is likely impermissible to provide.

Amino Acids

Chondroitin*

CLA (conjugated linoleic acid)

Creatine

Garcinia Cambogia

Ginkgo biloba

Ginseng

Glucosamine*

Glutathione Glycerol**

Green tea extract

HMB (hydroxy-methylbutyrate)

Melatonin

MSM (methylsulfonylmethane)

St. John's Wort

Tribulus

Yohimbe



*It is permissible to use some substances for medical purposes provided they are prescribed by a licensed medical doctor to treat a specific, diagnosed condition (as opposed to prescribing them for preventive reasons).

**Glycerine or glycerol as a binding ingredient in a supplement product is permissible.

With any supplementation, it is important to document what you recommend to an athlete, and especially what you provide. Ensure that you have good policies around any supplementation your department may be providing.

Remember: The NCAA holds the athlete, not the dietitian, accountable for what the athlete chooses to put in their body. It's important to remind them that there are no supplements with 100% guaranteed safety.

Looking back...



August 2014 - NCAA made drastic changes to regulations around feeding athletes, and lifted restrictions around departments providing food. Often referred to as "deregulation" this change catalyzed massive changes in collegiate sports nutrition.

January 2017 - NCAA removed the restriction on the percentage of calories from protein for nutritional supplements. The rule change did away with the long-standing "30% rule" which limited protein amounts in products provided to no more than 30% of total calories.

January 2019 - NCAA moved Omega-3 fatty acids into the permissible supplement category.

Other helpful resources → NCAA.org Your school's compliance department

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