5 Common Questions about Supplements and How Coaches Should Answer Them

Supplements targeted to athletes are everywhere, and they're becoming increasingly popular thanks to social media. As influencers and ad campaigns speak specifically to teens about recovering faster, gaining more muscle, or even shedding fat, your young athletes may be curious about supplements to boost their performance on the field and may seek your advice on which products they should be using.

Here, <u>U.S. Anti-Doping Agency (USADA)</u> Special Advisor Dr. Amy Eichner is explaining the risks around many of these supplements and offering some simple advice for answering common questions around supplement use.

But first, it's important for coaches to understand what they can and cannot discuss with their athletes when it comes to supplement usage. Be sure to check your school's athletic policy, says Eichner. "Nowadays, high school policies and high school athletic associations have pretty strict policies that prevent coaches from recommending dietary supplements or getting endorsements from dietary supplement companies," she says. "This means you're likely not allowed to make any supplement recommendations, but that doesn't mean you can't talk about supplements an athlete *shouldn't* be using. Coaches can educate about certain warning signs and raise awareness with both athletes and parents when it comes to misuse of supplements."

Eichner notes that warning signs of supplement, stimulant, or substance abuse can include mood swings, sudden weight loss or gain, agitation or irritability, sudden fatigue, or inability to perform and recover. And these symptoms can be caused by a supplement, or an athlete may try to solve issues with a supplement. As a coach, your role isn't to diagnose and recommend solutions, but rather, to flag issues and work with parents and healthcare providers to get the athlete the help that they need.

Here are the most common supplement questions athletes tend to ask:

1. What supplements should I use to build muscle?

Some of the most common supplements promoted on social media and targeted to young athletes are supplements that promote rapid muscle growth. As many coaches likely know, there are no shortcuts to muscle growth, or rather, no safe and legal shortcuts. If athletes want to put on muscle, the only safe way to do so is through improved nutrition and tailored training focused on muscle growth. If your athlete is asking about muscle-boosting supplements, they should speak to a registered dietitian to develop a food-forward plan that will optimize their muscle-building with real food, not with supplements.

When it comes to muscle development, Eichner notes that young men are particularly at risk for body dysmorphia and <u>muscle dysmorphia</u>, where they believe that they're too small or skinny, and in these cases, they may also benefit from working with a sports psychologist.

2. What supplements should I use to lose weight?

There are no supplements that a young athlete should be using if weight loss is a goal, says Eichner. However, if a young athlete is asking that question, it should also raise a red flag for a coach. There are a lot of potentially dangerous weight loss supplements that athletes can unfortunately access via online pharmacies, and athletes should be aware that any supplement that claims it causes weight loss almost certainly carries significant health risks, especially if it's not prescribed by a doctor. Coaches should also be aware that if athletes are asking about weight loss-related supplements, there may be a deeper problem: Your team may have a culture that promotes the idea of an 'ideal' body or makes weight loss seem like a requirement. If this is a question you're being asked, especially if you're also noticing weight loss, fatigue, mood swings or changes in performance, consider notifying the athlete's parents and recommending a registered dietitian and/or sports psychologist.

3. What supplements should I use to recover faster?

There's no simple (or legal) way to speed up recovery, says Eichner. If your athlete is asking about how to recover faster, first start by asking why they feel the need to do so. Not recovering quickly could be a sign of over-training and/or under-fueling, or it could be an indicator that an athlete is struggling with sleep or stress. Rather than seeing it as an issue that the right supplement can clear up, slow recovery times should be seen as a red flag that something is going on with the athlete. If they seem to be recovering fine but are simply trying to improve as much as possible, remind them of the basic principles: Focus on a protein and carbohydrate-rich meal post-workout, drink plenty of fluids, get plenty of sleep, and regularly take time off from training to allow the body to recover on its own timeline. As a coach, you can also help ensure athletes get enough time off to recover by being mindful of the practice, training, and competition schedules you enforce for the team.

4. What kind of pre-workout supplements should I use?

Pre-workout drinks and drink mixes have become hugely popular in recent years, but as Eichner points out, they're often packed with potentially lethal amounts of caffeine. And because the powders tend to be regulated as a supplement rather than as a food or beverage, the oversight on them is questionable, so there is always potential for contamination from a banned and/or harmful substance. They also can be prohibitively expensive. Rather than pointing athletes to pre-workout drink mixes, help them prioritize food-first fueling with an easy to digest, carbohydrate-rich snack or a sports drink within an hour of practice. And again, if they are consistently worn out and lacking energy, it may be a sign that they need to rest and possibly adjust their training schedule long-term to make sure it's sustainable.

5. Are these "trending" supplements safe to use?

Generally, it's best to recommend that <u>athletes steer clear of any trendy supplement</u>, and obviously, athletes should <u>never use substances that are banned in their sport</u> or access prescription-only medications like Adderall without their doctor's diagnosis and prescription. But there are a few other trending products that coaches should also be prepared to get questions about.

• Peptides: Peptides are simply pieces of protein, so athletes are already eating peptides in their food all day long. But peptides become a problem when they're marketed in

injection form, and unfortunately, these products can be accessed via illegal online pharmacies. As Eichner says, there is no reason your athlete should be injecting any peptides, and some are banned in sport, specifically the popular BPC-157, TB500, MOTS-c, and FGF-1 formulations. The ones that aren't banned still come with the inherent risks around unsafe injections.

- Creatine: While creatine is not a prohibited substance in sport, it is abundantly available in food through red meat, poultry and seafood, says Eichner. There is no reason for an athlete to use creatine unless it's recommended by a doctor or dietitian, and of course, in those cases, athletes should be looking for creatine that's been third-party tested for banned substances, since there is a risk of cross-contamination.
- Nicotine pouches: While nicotine is also not a prohibited substance in the Olympic movement, schools may have differing rules about nicotine. Regardless, Eichner strongly recommends against athletes using it. In recent years, the pouches that you put in the mouth have become popular as a way to increase focus, but as Eichner notes, it is one of the most addictive substances available on the market, it's expensive, and it's filled with health risks regardless of the delivery mechanism.
- BCAAs: Branched chain amino acids (BCAAs) have been popularized in powder form, but the reality is that they are abundantly available in food, says Eichner. Eating a diet rich in a variety of protein from both animal and plant sources should provide athletes with all the BCAAs they require. BCAAs are often found in pricey pre-workout drink mixes that often contain other supplements and high amounts of caffeine, which is another reason athletes should skip them.
- Ashwagandha: The ashwagandha plant has become popular as a stress-relieving supplement in recent years, says Eichner, and it's not prohibited in sport. However, it is often expensive, especially if the athlete is using appropriate third-party tested sources. Eichner also notes that there is minimal research available that would give athletes a reason to use it as a supplement. "I haven't heard any gold medal winners stand on the podium and credit ashwagandha for their win," she adds.
- Cannabidiol (CBD): CBD is part of the cannabis plant, and while it doesn't have the same 'high' inducing effect of THC—the other part of the cannabis plant—CBD is touted as a stress, anxiety, and pain reliever. Eichner doesn't believe the hype—and notes that CBD manufacturing in the U.S. may soon be illegal. "The thing that worries me most is that CBD products tout so many different effects that I just don't see how they could all be true," she says. There is also a significant risk of contamination with THC, which is a banned substance in sport.

Takeaway

Young athletes may be curious about using supplements to get faster or stronger, or to recover quicker. As a coach, you should be cautious about recommending any supplements, and instead help your athletes focus on good nutrition, rest, and recovery practices. It can be helpful to educate your athletes on the fact that many supplements aren't as helpful as marketing claims

may make them seem, and any supplement promising a quick win often comes with the potential for negative side effects or it may even contain a substance banned in sport.



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