



Debunking Diet Myths for the Athlete

When it comes to a healthy diet for an athlete, it is essential to know not only what and when to eat, but also how to navigate through the mounds of advice the outside world offers. Experimenting with certain diets and performance-enhancing supplements may or may not help performance, but more critically, may lead to unintentionally consuming banned substances or suffering from potentially severe health consequences. This article will explore common sports nutrition myths and help distinguish between what someone might say is good and what is truly good nutrition.

Fad Diets

A main issue facing student-athletes is eating well for performance. Which carbohydrates are important? How much protein is necessary? What is the best way to meet weight-class goals? Many popular diets lure followers by promising instant or substantial results. While many of them may "work," they tend to do so at the detriment of an athlete's performance and health. They often cannot be maintained long-term and may not provide enough energy to support the demanding lifestyle of a student-athlete. Red flags to look for when evaluating a new diet are:

1. Elimination of one or more specific food groups or nutrients – These diets often produce weight loss because they are very low calorie or they increase water loss. Neither of these practices results in true fat loss. Rather, they may fall short of the energy and fluid demands of one's sport, leading to dehydration, muscle loss, fatigue, and eventually, poor performance and health.^{1,2}
2. Single-food diets – Again, these diets are extremely low in calories, and they lack many essential nutrients for proper body function.
3. Extremely high or low levels of one nutrient – These diets are hard to maintain long term and often lead to water or muscle loss. They tend to be high-protein, low-carbohydrate diets, which usually result in weight loss from water loss that is regained as soon as usual eating habits are resumed. Additionally, low-carbohydrate diets may negatively affect performance and ability to focus.¹
4. Very low-calorie and fasting/starvation diets – These diets are unsafe and do not support the high-energy needs of student-athletes. They can lead to dehydration, slow metabolism, and muscle loss.² The number on the scale may decrease, but so will performance and health.

Supplements

Another often misunderstood topic in sports nutrition is that of supplements. To be clear, there is no magic pill, powder, or liquid that will turn a student-athlete into an athletic powerhouse.

There are a lot of pills, powders, and liquids, however, that will increase health risks, decrease performance, and show up positive on an NCAA banned-substance test. This is why it is extremely important for student-athletes, and those who work with them, to know what they are consuming.

The first step in evaluating a supplement is to consider the science behind the claims. Have studies been performed with the supplement that produced positive results? What actual substance and population was tested? Was the exercise performed applicable to the student-athlete? For example, if a study showed increased six-minute walk distance in elderly patients with heart disease, the results do not apply to the healthy student-athlete. Often the ingredient tested is not the same quantity, quality, or even type as the ingredient used in the supplement in question.

Some of the supplements most often used by student-athletes are protein supplements, creatine, energy drinks/enhanced waters, and nitric oxide supplements (NOS). Nitric oxide supplements are usually arginine-based products, which have not been proven effective in athletes.^{3,4} Likewise, while energy drinks and enhanced waters may increase short-term energy and performance due to carbohydrate and caffeine content, there is little to no research showing any of the other "active" ingredients have an impact on performance.^{5,6} As well, these drinks have been linked to detrimental cardiac, metabolic, and central nervous system issues.^{7,8} On the other hand, protein supplements and creatine do have research backing their use in sport.^{2,9} There are, however, specific usage requirements for these supplements, and as always, they should be combined with an optimized diet for results.

The second, and equally important, step in evaluating supplements is to know the manufacturer. Supplement manufacturing is not regulated by the FDA, so no one is making sure that what is written on the label is actually in the product.¹⁰ There could be more, less, or none of the "active ingredients" listed. Similarly, and even more concerning, there might be things in the supplement that are not listed on the label. This happens more often than expected and has resulted in athletes testing positive for drugs (Note: There's no such defense as "I didn't know." If an athlete tests positive, he or she is out.). Even more unnerving, undeclared ingredients have also resulted in severe health effects and death. Check with a sports dietitian for a list of reputable manufacturers, and make sure everything consumed is taken into account. For example, one energy drink may not exceed the NCAA's caffeine limit, but multiple energy drinks/shots combined with a few cups of coffee just might!

The Right Way

Nutrition is an essential part of every student-athlete's training. It is important to be leery of any diet or supplement that claims to be a magic solution to improving performance. As they say, if it sounds too good to be true, it usually is. The Academy of Nutrition and Dietetics and the American College of Sports Medicine together published guidelines on what a proper diet for athletes involves.² They agree that properly timed eating habits that include a varied diet, rich in all nutrients, is essential for ensuring peak performance. Carbohydrates are the fuel our bodies

use most efficiently for energy, and carbohydrate-rich foods provide a majority of the vitamins, minerals, and other health-promoting food components that keep the body moving. Lean protein is necessary for muscle repair and building and, more broadly, metabolic health. Healthy fats, like those found in fatty fish, nuts, seeds, and some oils, are necessary for overall health and immunity. Incorporating all of these nutrients, and including appropriate safe supplements when necessary, is what will help student-athletes to meet their sport and academic goals, from increasing lean muscle mass and decreasing fat to improving speed and staying well. They are essential to ensuring peak performance. Refer to the *Eating Before Exercise* and *Eating for Recovery* fact sheets for more information on further optimizing the diet in terms of what to eat and when.

Author

Written by SCAN Registered Dietitians (RDs). For advice on customizing a nutrition plan, consult a RD who specializes in sports, particularly a Board Certified Specialist in Sports Dietetics (CSSD). Find a SCAN RD at www.scandpg.org.

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