

# Dietary Supplements Things Every Athlete Should Know

As an athlete, you are in constant search of ways to beat the swimmer in the next lane. As a high level performer, you will be faced with some important decisions to make regarding how that goal can be accomplished. A very common practice among elite athletes today is using dietary supplements in hopes of gaining the competitive edge.

## What ARE Dietary Supplements?

Let's start off by first saying that there is a group of people within our government structure who make up "the Boss" of dietary supplements. It's called the FDA (or the Food and Drug Administration). Their definition of dietary supplements is a bit long, so to summarize, dietary supplements are vitamins, minerals, herbs and other botanicals or amino acids used to supplement the diet by increasing the total daily intake. They include concentrates, metabolites, constituents, extracts or combinations of these ingredients and are intended for ingestion in pill, capsule, tablet or liquid form. Another familiar form is powder. Dietary supplements include everything from the basic daily multi-vitamin, energy bar and sports drink to the most exotic herb and "booster." Most importantly, dietary supplements are not represented for use as a conventional food or as the sole item of a meal or diet.

When most people think of dietary supplements, they think Pills and Powders. However, many of the products we **commonly** use are **ALSO** dietary supplements:

- Sports Drinks (Gatorade, Powerade, Hydrafuel, Endurox, etc)
- Energy Bars (Power Bar, Harvest Bar, Balance Bar, Luna Bar, Clif Bar, etc)
- Protein Bars
- Gels
- Multivitamins

## The Use of Dietary Supplements in Sports

As you can imagine, there are lots of athletes using one or more of the products just mentioned. Some of the reasons they do this is because they have been told something like:

- “Supplements will help with your workouts in the pool.”
- “Supplements will improve your times as meets.”
- “Supplements will help you recover faster.”
- “Supplements will help you stay healthy and not get sick.”
- “Supplements will help you lose weight and look cut.”

Does this sound too good to be true? It probably is.

## Food vs Drug vs Supplement

Let's take a step back and take a look at dietary supplements and "conventional" foods and how these two differ from drugs.

There are some distinct differences between foods and drugs. Foods are things we eat to get energy and vitamins and minerals. For the most part, foods are under the control of that government organization called the FDA. They check foods all the time to make sure they ARE what they say they are. The FDA also checks on prescription drugs, which you can only get by going to your doctor. As for supplements, we already know what the definition is and that the FDA is "the Boss."

While the differences seem pretty clear, there is still some confusion these days about what is a food, what is a drug and what is a dietary supplement. To demonstrate the confusion, think of food and drug on opposite ends of a rainbow. One thing we know about rainbows is that they come with rain. And one thing we know about rain is that it comes with clouds. Imagine a big fluffy gray cloud smack-dab in the middle of your perfect rainbow. This is where we most often find dietary supplements. The cloudy, gray area.

### **Safety and The “Open Door” Analogy.**

Even though the FDA is supposed to be watching over dietary supplements, they are often too busy to make sure everybody who sells them is doing the right thing. Because of this, people are able to get away with being sloppy. Sometimes this happens during the manufacturing of a product, and sometimes it happens in the labeling process. And sometimes it even happens in both! Unfortunately, what this leads to is not knowing if you're really getting in a supplement what the label says you are. There are several ways this can affect you:

1. You may be getting something in a supplement that is not listed on the label.
2. You may be getting something that is listed on the label, but in a different amount, maybe more, maybe less.
3. You may not be getting what's listed on the label, in which case you've just wasted you hard-earned money on a bottle of "nothing."

What is the point? If you can't be sure that a product's ingredients list matches its contents 100%, how do you know that what you're getting is safe? Maybe you're allergic to one of the unidentified ingredients. Maybe your body can only tolerate certain amounts of ingredients. And what if one of those ingredients that got left off the list is prohibited?

### **The failure of a supplement's ingredients list to match its contents 100% opens the door for health risks and positive drug tests.**

Now, let's clarify that even though things like bars gels, sports drinks and basic multivitamins ARE supplements and therefore also have the potential to open that door, it's probably only open a crack. These products have been around a long time and have not been blamed for anything "bad." However, as variations of them become more exotic, with added herbs and other substances, their potential to open that door wider increases. Your powders, herbals and muscle-building supplements tend to be more susceptible to contamination with prohibited substances. In addition, their ingredients lists tend to be more inaccurate, more often.

If you receive a recommendation to use a dietary supplement, that advice is likely to come from one someone close to you. A family member, a friend, a team-mate, a coach, a trainer. Others who might suggest you take a dietary supplement include your nutritionist, trainer or doctor. But before you take that advice, no matter who it comes from, there are a few things about dietary supplements you NEED TO KNOW. Things like what it is, how it works and how it can affect your body. If you don't know the answers to these basic questions and feel comfortable with them, you should reconsider the offer.

### **Critical Questions**

Regardless of the situation, there are several critical questions that you should ask ANY time you consider using a dietary supplement. Knowing important details about a supplement empowers you to make informed decisions about its use. So ask yourself these before using ANY supplement:

1. **Is the product legal?**
2. **Is it safe?**
3. **Is it helpful?**

Chances are the answers to ALL of these questions are not available. And if you don't have all the answers, it's probably best to err on the side of caution. However, if the answer to each of these questions is YES, then you have a decision to make.

Let's start from the top: Is the product legal?

If a product is not legal, then the point is moot. That means, if it's not legal, you shouldn't be using it anyway. And if you are considering using it, you are, you're on your own now.

Next question: Is the product safe?

In order to determine the safety of a product, we have to test it for both short and long periods of time. Information like this is rare. The fact is that a lot of supplements haven't been around long enough for the science people to test it enough to know whether or not it is safe. This means that the answer to this question is almost ALWAYS "I don't know."

Next question: Is the product helpful?

Whether or not a product will be helpful to your swimming can be found out by research studies that look at the effects of the product on swim performance. The problem with this is that many studies misrepresent their findings, saying a supplement works when the way they conducted the study couldn't prove that. Consider these two scenarios:

1. A group of people takes a vitamin supplement for "x" number of weeks. They complete a 100 m time trial before and after this time. Their times improve. The researchers conclude that taking this supplement improves performance. But what they don't tell you is that this particular group of people was **deficient** in this nutrient to begin with! So what *really* happened was a matter of correcting a nutritional deficiency, which 9 times out of 10 can be corrected by making small healthy adjustments to the regular diet.
2. A group of people who are not deficient are given a supplement while they train for 6 weeks. Pre- and post-tests indicate that their performance improved. The supplement improved their performance, right? Not necessarily! What gets left out is the fact that the people who improved were **untrained** to begin with! You train ANYBODY for 6 weeks, and they will get better. It's a simple fact.

And so we have two examples of how the research on dietary supplements is not yet good enough to conclude that supplements improve performance. We just don't know enough about it.

### **Responsibility**

When it comes down to it, you and you alone are the only responsible for what goes into your mouth. Not your coach. Not your parents. Not your doctor. Not your nutritionist. Not your team-mates. YOU. This is where you as an athlete are required to assume some responsibility for your actions. The decision to take a supplement is yours to make. We hope you make the right one. After all, you're the one who has to live with any consequences it might bring upon you. The responsibility is yours.

How is THAT for "Food for Thought?"

#### **Think About It:**

If someone you know and trust recommends that you use a supplement because it will improve your times, what should you do?