

## Supplements 101: The Art And Science Of Performance Nutrition!

Status Fitness Magazine

March 28, 2019

This incredible guide will help you maneuver through the colorful marketing, to make the right supplement choices to fit your needs.

Do you remember your first time? I do. I was only 16 years old, but I remember it as clearly as if it were yesterday. I was nervous and my hands were sweaty. I was self-conscious and felt awkward, ignorant and uninformed. I felt like I had the word "inexperienced" written all over my face flashing like a neon sign. I was young and I wasn't sure if I was ready... but I knew I was dying to find out more about what others surely already knew.

As clumsy as I felt, I also remember very clearly my heart racing, filled with excitement and lust like a youngster on Christmas morning. I knew that somewhere inside this place lie the answers to at least some of my young man dreams.

Walking into the sports nutrition store at the local mall was almost a rite of passage for me. The older boy behind the counter was huge, at least from my 16-year old, barely post-pubescent perspective. He was one of the local "big guys." At the local gym I had only just recently joined, I had witnessed him and his friends lifting monstrous poundages on several occasions.

His traps, chest and arms stretched the seams of a polo shirt that was, I'm sure now, intentionally 2 sizes too small for him. His Z-Cavaricci's were cinched tight around his tapered waist, but the supposed-to-be loose-fitting pants fit snugly around his oversized quads.

In my young, hungry mind, I knew he held the answers I was seeking—in him, and somewhere in the stacks of containers of pills and powders piled all around the store. I didn't know it at the time, but the very questions I didn't even know I had, and the search for the corresponding answers would become my life's passion.

Now your first time may not have been as life changing and earth-moving as mine, but I'm sure you felt some level of intimidation, or at least confusion, the first time you walked into your local supplement store.

Today's real-world retailer, what we call the "brick and mortars" of our industry, still hold a sort of mystique for most customers, at least in my experience as both a store owner and a long-time customer.

The flashy labels with aggressive call-outs, bottles slathered with superlative promises, signs and posters of super-humans, product displays screaming hyperbole... all of this has become the palette of our semi-circus subculture.

Even with the recent trend in our fitness industry to "mainstream" and surrender the intimidation factor of "hardcore" to more mediocre marketing, "corporate" schemes that victimize, err, target "Joe average", the world of sports nutrition can still be a daunting place for the newbie.

## **THE ART AND SCIENCE OF PERFORMANCE NUTRITION**

High Performance Nutrition is an exciting, powerful discipline. Sports supplements are valuable tools that can enhance your life by supporting the output of your body and your mind. However, finding the right products to help you get the results you are seeking can be a challenge.

What follows is a short guide to help you maneuver through the onslaught of colorful marketing, to make the right supplement choices to fit your needs.

### **1. ALWAYS START WITH A SOLID BASELINE**

Begin with a good multivitamin/multimineral formula from a brand you trust. A multivitamin/multimineral will fill in the nutritional "gaps" in your meal plan. Vitamins and minerals act as catalysts or substrates for nearly all the chemical processes that occur in our bodies.

Without a solid baseline of nutrition, our bodies will not run properly - you can forget about "high-performance" anything if your baseline nutritional needs are not met. Sadly enough, most experts agree that today's dietary standards are sorely lacking for maintenance of baseline health over the long term. Thus, the very real need for supplemental baseline nutrition.

### **2. THE BUILDING BLOCKS**

Protein is the most important nutrient for success in the gym—not just for bodybuilders, but for anybody. Protein keeps our metabolism rockin' in high gear, helps us heal cuts and wounds, grows our hair and fingernails, protects and feeds our hard-earned muscle tissue.

Be sure you get sufficient protein! Without it, no matter how hard you train, it'll all be for nothing! Protein recommendations for active, exercising individuals fall between 1-1.5 grams per pound of lean bodyweight.

If your goals are to build lean mass, or for fat loss, protein levels as high as 1.8-2 grams per pound of lean bodyweight are common practice.

Amino Acids are the building blocks of protein. Certain specific amino acids have critical functions in our bodies.

- Glutamine has been shown to support an already healthy immune system and protect lean tissue.
- The Branched Chain Amino Acids: Leucine, Isoleucine and Valine boost exercise performance, protect lean muscle and support tissue growth.
- L-Arginine is the hottest amino acid these days for its role in vascular regulation.
- OKG, a form of the amino acid ornithine, has anti-catabolic properties, and may stimulate the body's natural anabolic hormones.
- Creatine is the most common amino acid of all. Creatine is by far the most popular, most-researched high-performance supplement available today. Creatine plays a key role in energy production, enhances muscle power output and increases muscle size and strength.

As you can see, protein is the #1 performance-enhancing supplement available. Protein should be the real supplemental priority in your nutritional regimen.

A solid multivitamin/multimineral and extra protein (either from food or protein powders/drinks) form the foundation on which you'll build your high-performance lifestyle! With a solid nutritional skeleton, you're now ready to advance into the realm of "high-performance" supplementation!

### **3. TAKE IT TO THE NEXT LEVEL**

High-performance sports nutrition encompasses several categories of specialized products grouped according to function or results yielded by the specific products.

Each general product category is based on a specific physiologic goal. It is from this 3rd tier of supplementation, the high-performance level, that we choose the supplements designed specifically for our individualized goals.

Whether your goal is specifically muscle building (either generalized weight gain or lean mass acquisition), fat loss, increased energy, increased strength and performance in the gym, increased mental focus, endurance or enhanced recovery, chances are you'll find what you're looking for in our world of high-performance sports nutrition!

#### **FAT LOSS**

The largest and by far the best-selling category of supplements, this monster category can be further divided into several sub-categories:

Thermogenics raise the core temperature of the body a small but significant amount. This process, called thermogenesis (thermo=heat; genesis=creation of), increases metabolic rate to increase the amount of calories burned by the body. Guggulsterones, and 7-keto DHEA are examples of ingredients that have a thermogenic effect when ingested.

Stimulant-based fat burners support fat loss by coaxing the body into utilizing fat first for fuel. Ingredients that make up products in this category include compounds that mimic or prolong the body's stimulant hormones, epinephrine and nor-epinephrine.

By functioning like these chemical messengers, stimulant-based fat loss products support lipolysis (breakdown of stored fat) and also contribute to increased energy expenditure through virtue of their increased energy characteristics. Synephrine, yohimbine, geranamine, green tea, caffeine, theobromine are examples of stimulant-based fat burning ingredients.

Non-stimulant fat burners include products that facilitate fatty acid transport or facilitate utilization of fatty acids, in lieu of carbohydrates, for energy. L-Carnitine, CLA, Raspberry Ketones, and Sesamin are examples of non-stimulant fat loss ingredients.

#### **PRO-ANABOLICS/MUSCLE BUILDERS**

Generally speaking, if the main focus of an individual's fitness program is not specifically fat loss, it will most likely be aggressive muscle growth. Just about everything on the shelves of a sports nutrition store can be classified as muscle building, but there are some products that are specifically targeted to increase muscle.

Muscle building or "anabolic" ingredients (anabolic means "muscle building") include compounds that support or increase protein synthesis, or support cellular volumization. Hormonal support products such as tribulus, fenugreek, eurycoma longifolia, aromatase inhibitors and more specific combination "pro-anabolic" compounds are grouped together in this category.

Branched-chain, free-form and essential amino acids improve protein synthesis and have a muscle-sparing, anti-catabolic effect. Protein powders, of course, can also be included in this broad category.

### **ENERGY/ANTI-FATIGUE**

This group of supplements includes ATP replenishment and endurance type products as well. Adenylpyrophosphoric acid disodium (Peak ATP™) and beta-alanine are two clinically proven anti-fatigue products. Creatine, the most highly-studied ergogenic aid on the market today, also falls into this category (as well as several others).

There are certain engineered carbohydrates, including Vitargo and waxie maize, maltodextrin and Nitrosorb™, which are specifically designed to provide high levels of glucose to feed muscle contractility. Products in this category are most-often formulations of several ingredients combined for a synergistic effect on energy production systems and to manage cellular waste and speed ATP replenishment.

### **PUMP/VOLUMIZERS**

Creatine falls into this category as well! This is the newest category in sports performance nutrition. Pump products include vaso-dilators, insulin mimetic herbals, flushing agents and osmotic manipulators.

These products are combinations of compounds or single ingredients that have been demonstrated or theorized to increase blood flow to muscle cells, while training, to maximize the swelled feeling inside the muscle cell as well as to increase nutrient delivery to muscles to feed recovery and eventual growth.

Products in this category include NO Shotgun, Expand, NO3 Overload, SuperPump 250 and PlasmaJet. Arginine, yohimbine, creatines, ornithine, and a whole spectrum of products, both common and obscure, are combined to yield a "pump" like effect to help intensify the tactile sensation of the workout, while supporting increased nutrient delivery for faster recovery.

### **CONCLUSION**

As you can see, there are many different categories of supplements, each with specific purposes. The individual ingredients or formulations may fall into one or more category, but all are designed with the goal of helping you make yourself into the best YOU possible through the optimization of a particular facet of your body's performance.

So be an informed, not intimidated, consumer! Take advantage of what's available to help make it easier for you to get to your goals—and beyond!

Get online, read the industry magazines, pay a visit to your neighborhood supplement guru today and ask him what he thinks is best for your needs. Realize that he may or may not have all the answers, but chances are he'll be willing to talk your ear off about what works best for him! So take this lead and try for yourself.

Knowledge is power and experience is the best instructor. By keeping yourself informed, focusing what your goals are and looking for the specific supplements that are designed to help you achieve those goals, you can get the most from what's available to you and make your journey productive!

You're only a few steps away from the best you yet, and with the edge of a conscientious supplementation program, you're even closer than you may think!