

# Supplement Reivew

## CREATINE

### **What Is Creatine?**

Creatine is a compound that which naturally is made in our bodies to supply energy to our muscles.

### **Is It Legal?**

Creatine is not a steroid or a drug. It is made in our bodies naturally and is normally present in many foods in relatively high quantities.

## PROTEIN

### **Whey Protein**

Without protein (which the body breaks down into amino acids), you cannot build muscle. No matter what kind of diet you follow, your diet must be rich with protein.

In addition, protein also has a nice effect on insulin stability and energy levels, especially during a diet. By consuming protein with each meal, there is a great chance your blood sugar levels will fluctuate less. This can help you control your appetite and provide a consistent environment for great fat loss. If you consume a diet that is too high in carbohydrates, your blood sugar levels fluctuate all day- on minute you feel great; the next you feel tired and wiped out.

### **What Type of Protein Is Best?**

Quality protein is in whole foods like eggs, milk, cottage cheese, beef, fish, poultry, etc. There is also a variety of protein supplements on the market: milk and egg protein, soy, beef, even vegetable protein. Out of all these different protein supplements, whey protein is the best. Not only does it have a superior biological value (which means it may “yield” more usable grams of amino acids than other protein supplements), it is also very low in lactose.

### **When and How To Use Whey Protein**

Here are a few tips on when to consume a quality protein supplement: first, have protein-rich supplements right after a workout. Second, try to consume a protein supplement first thing in the morning to put an immediate halt to the catabolic tailspin you go through during the latter half of your sleep cycle. Another good time to have a protein supplement is late in the evening. This helps ensure that you do not go any longer than necessary without consuming protein. While you are awake, you should make a diligent effort to consume some type of protein in every few hours throughout the day. Try to get a mixture of quality of whole-food proteins and protein supplements.

## GLUTAMINE

### **Glutamine is the most abundant amino acid in skeletal muscle.**

In times of disease and stress, (weight training is stress), certain parts of the body demand so much glutamine that the body cannot manufacture enough. In these instances, glutamine supplementation could make a world of difference. As an added benefit, glutamine is also one of the few amino acids that causes extra growth hormone release; in fact, just a two gram oral dose of glutamine was shown to cause a fourfold increase in growth hormone levels.

### **How Much Glutamine?**

The best way to supplement glutamine is to feed the body 2 to 3 grams throughout the day.

## **ANTIOXIDANTS**

### **+ What Are Antioxidants?**

Antioxidants are a class of chemical compounds (many are vitamins) that attack substances in your body known as “free radicals” and pro-oxidants. These aggressive molecules circulate in your body- they go around screwing up the function of cells and other molecules that move in the blood.

An example of how radicals work, imagine you cut a peach or apple and leave it out in the open- before too long, it becomes discolored. It is “oxidizing”, that means free radicals from the oxygen it is exposed to, are disrupting the natural, healthy structure of the peach or apple. Now visualize that happening to the cells in your body.

### **+ The Best Antioxidants**

Some of the most effective antioxidants are Vitamins C, E, carotenes (like beta-carotene and lycopene-tomatoes are full of this red stuff), N-acetyl-cysteine, selenium, and perhaps lipoic acid. Other compounds, like conjugated linoleic acid also may have potent antioxidant activity, as do proanthocyanidins (found in high concentrations in pine bark and grape seed extracts), curcumin and other curcuminoids (found in the spic turmeric), the amino acids methionine and cysteine, and green tea catechines.

## **VITAMINS AND MINERALS-**

- + You want to build muscle and burn fat right. Then you need to make sure your body is in top working order. Each vitamin and mineral is responsible for literally thousands of biochemical reactions. If you do not feed these important micronutrients to your body every day, in the right amounts, you will never reach your fullest potential.**

## **ESSENTIAL FATTY ACIDS**

- + Here is the deal:** saturated fats are the bad ones. They really do not play any important role in the body. Saturated fat is solid at room temperature. So try to consume as little as possible of saturated fat.
- + Unsaturated fats** are usually liquid at room temperature- they are considered much healthier. Two particular types of unsaturated fats are considered essential fatty acids or EFA's. These are ones that cannot be made by the body and are necessary for thousands of biochemical reactions to take place in the body. These fatty acids are called linoleic acid (sometimes called an omega-6 fatty acid) and linolenic acid (omega-3). In the ideal metabolism, linoleic and linolenic acid are the only dietary fats you need.
- + EFA Supplements**  
The most popular supplement is flaxseed oil. Another EFA supplement that is very popular is a “designer fat” called Udo's Choice (name after Dr. Udo Erasmus, who wrote a great book called Fats that Heal, Fats that Kill). Udo's Choice can be found at many specialty health food shops. I recommend one tablespoon three times per day.