

# **RBC** Product Information



## **Protivity**<sup>TM</sup>

### USA

Item #1805	
140 Caplets	
Retail	\$72.45
Wholesale	\$55.65



Amino Acid Complex for the fitness-minded, health-conscious, and bodybuilder!

**Protivity**<sup>TM</sup>

Protivity is a unique blend of the highest quality, vegetable source, crystalline amino acids formulated to give you maximum protein support. Protivity has been recently reformulated based on new amino acid research, and now contains eleven essential and conditionally essential amino acids.

Protivity will help you maximize protein formation, build and repair muscle and connective tissue, increase strength and endurance, and support the reduction of unwanted body fat. With the proper diet, a dedication to your workouts, and a well-rounded supplement regime including Protivity, you will begin to notice greater benefits from your efforts to build a lean, sculpted body.

#### How Protivity Can Help Build Your Body

Amino acids are the molecular building blocks of protein and muscle tissue. All the physiological processes relating to sport – energy, recovery, muscle/strength gains and fat loss, as well as mood and brain function – are critically linked to amino acids. Anyone who wants to gain muscular strength must consume adequate protein or amino acids to build that muscle. This is true for a body builder, a casual weight lifter, or someone who simply does not want to lose strength as they age.

Research has confirmed that there are nine essential amino acids, not just eight as earlier research had indicated. The ninth essential amino acid, histidine, has been shown to enhance protein synthesis in the body. For this reason, we have added histidine to the new and improved Protivity.

Recent studies are also showing that there are two other amino acids, arginine and glutamine, which can significantly impact health and bodybuilding. They are called conditionally essential because under certain circumstances the body cannot produce as much as it needs, so supplementation becomes necessary. These conditions include exercise, stress and illness. Consuming adequate amounts of these conditionally essential amino acids can aid in muscle

building while helping athletes and individuals under stress maintain a healthy immune system.

Protivity now contains all of these important amino acids in a form that is 99% absorbed. They go to work within 20 minutes to firm and strengthen your muscles as you work out.



### Why Glutamine Is So Good For Athletes

After stress or exercise, your body's need for glutamine increases and it cannot produce enough on its own. Without adequate glutamine, the body will break down muscle tissue to get it<sup>1</sup>. This could be devastating to an athlete who has worked hard to gain that muscle. However, glutamine can be supplemented into the diet to ensure an adequate supply for the muscles when they need it. Glutamine is also critical for the immune system.<sup>2</sup> It is used to produce a powerful antioxidant called glutathione. Glutamine is also used as an energy source by the cells of the intestine and can contribute to the growth and renewal of these cells.

Glutamine has been shown to increase hydration of the muscle cell. This signals the anabolic (building up) functions of the muscle cell. This anabolic effect is present as long as glutamine remains in the muscle cell, yet once glutamine levels diminish, muscle-wasting sets in.

Some glutamine products on the market may do more harm than good. A dose that is too large can provoke the liver to dump glutamine in an attempt to maintain balance. Large amounts can also block your body's receptor sites for other, equally important, amino acids.<sup>3</sup> Glutamine can now be found in an ideal amount, balanced with other amino acids in Protivity.

#### Why We Added Arginine

The body's need for arginine may exceed its production during stress, poor health and exercise. The vital functions of arginine, including protein synthesis, cannot be left to chance. Supplementation has proved to be important for many people.

Research shows that arginine provides protection to the heart.<sup>4</sup> It can also help improve reproductive, pulmonary, renal, digestive, liver and immune functions.<sup>5</sup> Arginine acts as an antioxidant that can inhibit the oxidation of fats and support healthy lipid levels in the blood stream. It may also scavenge superoxide anions and hydrogen peroxide, two dangerous free radicals.

Arginine contributes to the production of creatine in the body. Creatine is an energy source for our muscles that may enhance strength and endurance. Research has also investigated arginine's benefit to the immune system. This amino acid appears to increase the ability of natural killer cells to destroy dangerous mutating cells in the body.

Arginine can also benefit athletes through its role in wound repair. After an injury, the body may not produce enough arginine to keep up with demands. Supplementation can support wound repair while staving off the normal after-injury muscle wasting. Protivity is ideal for athletes who suffer an injury, but don't want to lose their hard-earned muscle while they rest.

#### The Protivity Solution

Fitness-minded individuals know that protein is key to building a sculpted body. However, high fat protein foods and processed "energy" bars can be hard on the body. Protivity provides highly bioavailable amino acids that require no digestion and place no stress on the body. If you exercise, or experience stress or illness, Protivity is the perfect solution to meeting your protein needs. It has been carefully formulated using amounts and ratios recommended by leading amino acid experts.

**Each caplet contains:** 1000 mg blend of L-Isoleucine, L-Lysine, L-Phenylalanine, L-Arginine, L-Glutamine, L-Leucine, L-Methionine, L-Threonine, L-Valine, L-Histidine, L-5-Hydroxytryptophan, and 10 mg of vitamin C.

#### **References:**

- 1. Boelens, Petra G. et al. *Glutamine Alimentation in Catabolic States*. Journal of Nutrition 2001, 131 (9S) 2569S-2577S.
- 2. Andrews FJ, et al. Glutamine: essential for immune nutrition in the critically ill. British J of Nutr 2002, 87 Supp 1: S3-8.
- 3. Matthews, D.E. et al. *The effect of glutamine on protein balance and amino acid flux across arm and leg tissues in healthy volunteers*. Clinical Physiology 2001, 21(4): 478-489.
- 4. Wu G, et. al. Arginine nutrition in development, health and disease. Curr Opin Clin Nutr Metab Care 2001,3,1 59-66.
- 5. Yan Y, Davani S, et al. *Effects of L-arginine administration before cardioplegic arrest on ischemia-reperfusion injury.* Ann Thorac Surg, 2001, 72,6;1985-90.

#### To Order Protivity<sup>™</sup> Contact Your Royal BodyCare Associate:

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