

# PEAK PERFORMANCE

Part Five  
In a Series by  
Dr. Fred Hatfield

## About Amino Acids

In conjunction with a base Amino Acid formula, you might want to consider some additional supplements:

- **Serine** may be taken between meals to increase blood sugar levels or taken before a workout or competition to generate energy. It's especially helpful if you have hypoglycemia.
- **Alanine** can also be taken between meals to increase the glycogen levels in your body, which protects your muscles. If you're under stress or have hypoglycemia, your body will break down muscle tissue to obtain the amino acids like alanine that it needs to raise the blood-sugar level. I personally use it before workouts, between meals and before bedtime. Dosages can be increased when you're under additional stress.
- **Glutamic acid** in powdered L-glutamine form helps memory and concentration. Personal experience with glutamine and medical exams in college showed that one to three grams of glutamine taken under the tongue every two hours was a good study aid. Glutamine is helpful if you're training intensely or involved in sports that require a great deal of concentration.
- **Alpha ketoglutaric acid** helps to drive your energy system and provides additional energy before training or competition.
- **Carnitine** helps to accelerate the fat-burning process by combining with fat and carrying it into the cells' mitochondria where it's used for energy. This can result in lower bodyfat levels, increased long-term energy and the ability to conduct more intense workouts.
- **Citric aspartic acid**, like alpha ketoglutaric acid, increases your available energy. It's especially helpful taken before a workout or competition.
- **Dimethyl glycine** is excellent for boosting your immune system, and for preventing or delaying the build-up of lactic acid in your muscles. It can prevent the painful muscle burn that occurs when you "hit the wall" or lift your maximum weight. In my opinion, it can give you the extra edge required of champions.

## How to Take Amino Acids

As with all supplementation, you should start amino acid supplementation with small dosages and increase them gradually. You must also be taking a complete multivitamin and mineral supplement. Amino acids are dependent on vitamins and minerals to work.

Editors Note: We are extremely fortunate to have Dr. Fred Hatfield share some of his insightful training ideas on achieving peak athletic performance without drugs. Dr. Hatfield is a prolific and creative writer of over fifteen books on weight training. After spending years as a track and field athlete, soccer player, gymnast, olympic weight-lifter and bodybuilder, Dr. Hatfield turned to the sport of powerlifting. He is known as Dr. Squat and his 1014 squat in Hawaii this year was another world record; one of many set by this champion of champions.

### Other important points to remember:

- The base amino acid formula should be taken after meals. You can take it between meals if you want to suppress your appetite, such as when you're dieting or (for bodybuilders) cutting up for competition. And you can also take it as a pre-workout aid one-half hour before you take any other pre-workout formula.
- If you use the wrong supplements in combination with the wrong doses, you can expect not to see the results you'd like, and it can even be detrimental.
- Your body's biochemistry changes slowly. It may be three to twelve weeks before you see the full benefits of your supplementation program, although the initial response occurs within 36 to 48 hours.
- Overtraining, according to research, has a detrimental effect on amino acid metabolism, and I've found that the majority of athletes I have observed have been guilty of over-training. When the intensity or frequency of training is slowed down, there has been a notable increase in muscle size, strength and endurance. *Don't overtrain.* The key is *balance* between training and recovery time.
- Diet is very important. Animal proteins can limit amino acid response and therapy. The best diet consists of 60 to 70 percent complex carbohydrates, 10 to 20 percent animal protein and 5 to 10 percent fats.

### BOOKS BY HATFIELD

*Ultimate Sports Nutrition*

\$11.95 plus \$.50 postage

*Ergogenesis*

\$10.95 plus \$1.50 postage

Write: Sports Conditioning Services

P.O. Box 222

Canoga Park, CA 91305

Toll Free call: 1-800-544-5485

In California call: (818) 993-8251