

NUTRI-SPEC



THROUGH
SPECIFIC NUTRITION

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ANABOLIC AND ERGOGENIC ---

WHO'S FOOLING WHOM?

[NOTE: For a complete discussion of exercise physiology read the May, 2004 through July, 2005 issues of THE NUTRI-SPEC LETTER.]

Many athletes look to nutritional supplementation as a means of improving performance. The two major performance advantages sought are:

- 1) an ANABOLIC effect – an increase in muscle hypertrophy in response to training.
- 2) an ERGOGENIC effect – an increase in the energy available for training and competition.

Popularly read athletic books and magazines are saturated with propaganda promoting nutritional supplements “scientifically formulated” and endorsed by champions, purported to give just the anabolic and ergogenic advantage any athletic competitor needs to become a winner. The truth is, the “science” upon which these formulae are based is largely anecdotal evidence that amounts to little more than wishful thinking.

That anabolic and ergogenic activity can be enhanced by nutritional supplementation is undeniable. The problem with the commercially available supplements is their false claim to be able to stimulate **both** types of performance improving activity at once. Truly scientific study of anabolic and ergogenic activity reveals that they are enhanced by exactly **opposite** biochemical conditions. For an athlete to take a popular brand of supplement in hopes of stimulating both is like training to win Olympic gold medals in both the marathon and in power-lifting. The two are mutually exclusive.

Here is a brief general summary of the opposite biochemical conditions that exist in an athlete's body when in an anabolic state and an ergogenic state:

ANABOLIC

- anabolic
- anaerobic
- acid tissues; alkaline blood
- decreased cell membrane permeability to negative ions
- low cellular calcium; high blood calcium
- high cellular potassium; low blood potassium

ERGOGENIC

- catabolic
- oxidation/free radical
- alkaline tissues; relatively acid blood
- increased cell membrane permeability to negative ions
- high cellular calcium; low blood calcium
- low cellular potassium; high blood potassium

One doesn't need a Ph.D. in biochemistry to get the point . . . If companies are selling athletes supplements as anabolic and ergogenic aids then either they are kidding themselves or they are fooling the athletes. In either case, the athlete is throwing money away.

So, can an athlete use nutritional supplements to help achieve peak performance capability? Yes, absolutely. Not by falling for the latest commercial sales pitch, but rather by understanding and testing his or her own body.

Simply understand that, as an athlete, one goes through frequent swings in body chemistry from the anabolic state to the ergogenic state – a short ergogenic state during exercise, followed by a much longer anabolic state during recovery. These two states are the extremes of body chemistry an athlete must achieve to respond to the extreme demands of intensive training.

Normal (balanced) body chemistry lies between these two extremes. And it is from this state of **balance** that an athlete's body is prepared to swing in whatever direction is required, immediately upon demand.

When balance is lost, the athlete's body chemistry loses its ability to swing efficiently into either the anabolic or ergogenic state, and performance suffers. Nutritional supplements **are** effective in restoring proper balance, but only when applied **with specificity**. This is the advantage of NUTRI-SPEC testing. An athlete's body chemistry can be monitored daily to determine any imbalances inhibiting either anabolic or ergogenic activity. The specific nutrients required can be taken exactly when needed to enhance performance.

In other words, the only thing that can stop an athlete from achieving maximum benefit from intense training is being either undernourished or biochemically imbalanced. If the required nutrients are available **and** the body chemistry is balanced, the athlete will then, and only then, reach his or her innate potential.