



# Your new 'go-to' pre-workout ingredient.

## SUMMARY

AlphaSize® Alpha-Glyceryl Phosphoryl Choline (A-GPC) is a powerful ingredient that boosts mental energy and physical performance while remaining stable, tasteless, and completely water soluble. A myriad of research studies support A-GPC and its key benefits; this is real science, not broscience. It's no surprise that it is quickly becoming the gold standard sports nutrition ingredient.



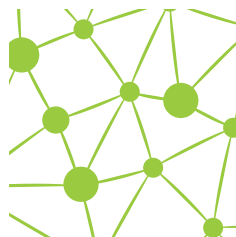
## FUNCTION



AlphaSize® A-GPC provides both physical *and* mental gains in performance. More specifically, it boosts mental energy, concentration, and focus, fights fatigue, improves reaction time, agility, speed, jumping, and power output.

## HOW

A-GPC increases the immediate formation of acetylcholine, the body's primary neurotransmitter chemical. Acetylcholine is involved in transmission of impulses from neuron to neuron in the central nervous system and peripheral nervous system. So when your brain tells your body to move, those impulses from neuron to neuron fire more rapidly, and when your body senses activity, it communicates back to your brain more efficiently. It's a mind-to-muscle connection — simple, but complicated; so think of A-GPC like caffeinating your neurons.



## DEEPER DIVE

This is *real* science, not broscience.

### Alpha-GPC: A Building Block Of Acetylcholine

After oral administration, A-GPC is converted to phosphorylcholine, which is a metabolically active form of choline. Phosphorylcholine migrates to the synaptic nerve endings found throughout the entire central nervous system, and in turn increases the synthesis and release of acetylcholine (AC). AC is a vastly important neurotransmitter present in both brain and muscle tissue. In the brain AC plays a key role in basically every cognitive function while in muscle it is vitally involved in muscle contraction, as it is the major neurotransmitter involved in contraction of muscle fibers.

### Acetylcholine & Improved Muscular Performance

Starting in the spinal cord, motor neurons branch along their axons and come in contact with muscle fibers at their motor units, where AC is called upon to deliver the action potential to each muscle fiber at the motor end plate, thus initiating muscle contraction. Motor units are recruited in order of their size, starting with the smallest in size and weakest in degree of tension they can generate.

It has been demonstrated that engaging in intense exercise can cause a significant reduction in plasma choline levels, thus reducing global stores of AC, and causing a negative impact on endurance and muscular performance. Thus, A-GPC can enhance essentially all physical movements — explosive power output, agility, jumping ability — since muscle contraction is related to available AC stores, and A-GPC maximizes AC.

### Acetylcholine, Growth Hormone & Health

AC has been shown to potentiate the secretion of human growth hormone (HGH), a master hormone that in part regulates basal metabolism and also body composition. Since A-GPC has been shown to naturally increase AC, it offers additional health benefits beyond cognition improvement by increasing HGH. Since the intrinsic release of HGH declines significantly after adolescence, boosting HGH can improve resistance to illness, vitality, recovery, muscle mass gains, decreases in fat mass, and improvements in sleep patterns.

## ACCOLADES



Taste-free



Water Soluble



Natural



Validated



Efficacious



Safe

Look for the AlphaSize® logo and trade name on your favorite brand's products.



Ingredients for Human Performance

[cheminutra.com](http://cheminutra.com) / 866.907.0400 / @cheminutra