

# Nootropic benefits for bodybuilding

**Blog link**

<https://henryshepherdson.com/nootropics-for-bodybuilding-and-athletic-performance/>

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**performancelab.com**

<https://www.performancelab.com/blogs/nootropic/nootropics-for-bodybuilding>

**breakingmuscle.com**

<https://breakingmuscle.com/fitness/is-choline-deficiency-killing-your-performance>

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### Motivation and Intensity

Nootropics for motivation and energy

<https://neuroactive.co.za/collections/energy>

The motivation to work out (and, consequently, exercise intensity) drastically wavers due to:

1. ***Catecholamine Status:*** dopamine, norepinephrine, epinephrine—these catecholamine neurotransmitters play a key role in stimulating alertness and mental arousal, and so when catecholamine status is impaired, exercise intensity suffers.[1]
2. ***Energy Levels:*** whether due to sleep deprivation or malnutrition (or, typically, both), operating on low energy levels is one of the best ways to sap your motivation dry.

**As such, nootropics that increase catecholamine activity and energy levels may significantly improve a bodybuilder's motivation to ramp up their workout intensity.**

Examples of Nootropics for Motivation and Intensity:

- ***Caffeine:*** especially when paired with L-theanine (see below), caffeine is an effective ergogenic for boosting exercise intensity, including objective measures of maximal muscle strength and power.
- ***L-Tyrosine:*** as a precursor amino acid required to synthesize catecholamines, L-tyrosine may help enhance cognition and exercise capacity under conditions of catecholamine depletion.
- ***B-Vitamin Complex:*** involved in the catecholamine conversion processes, B-vitamins (namely B6) may assist with catecholamine status, while also potentially increasing the mobilization of free fatty acids for exercise energy fuel.

### Focus, Concentration

Nootropics for Focus

<https://neuroactive.co.za/collections/focus>

Taking focus-sharpening nootropics may help get you “in the zone” and out of the gym quicker after having a more intense, timely efficient workout. Interestingly, too, you'll find that your

abilities to stay focused will improve with more exercise, as physical exercise seems to also improve attentional performance via exercise-related mental arousal.

Examples of Nootropics for Focus and Concentration:

- *Citicoline (CDP Choline)*: one part cytidine, another part choline, citicoline is a powerhouse nootropic that benefits cholinergic cognition (memory, learning, neuromuscular function, etc.) while also improving concentration and sustained attention.
- *L-Theanine*: especially when paired with caffeine, this green tea-sourced amino acid improves cognitive performance and attention while sustaining calm, composed thinking.
- *Maritime Pine Bark Extract*: in addition to reducing oxidative stress and boosting nitric oxide (N.O.) for better “muscle pumps,” maritime pine bark extract significantly improves long-term attention performance.

## Energy and Endurance

Though an effective strategy for quickening fat loss, fasted training (exercising on an empty stomach) can do some damage to your energy and endurance levels.

For one, having a ready supply of food energy fuel, namely carbohydrates (glucose), is key to sustaining high-intensity and/or long endurance exercise.

Secondly, brainpower and (especially) willpower suffer under fasting conditions, due to the well-documented link between glucose and self-control. And as any bodybuilder knows, self-control (i.e., willpower) is a key ingredient to any successful, long-term fitness regimen.

*Maximizing lean muscle growth and fat loss while still sustaining high enough energy levels to fuel high-intensity exercise is difficult to balance.* However, with alternative brain energy fuel sources, such medium-chain triglycerides (MCT), and natural cellular energy boosters, you may better increase your energy and endurance levels under metabolic conditions conducive to lean muscle growth.

Examples of Nootropics for Energy and Endurance:

- *Medium-Chain Triglycerides (MCT)*: medium-chain triglyceride (MCT) oil is a must-have for bodybuilders seeking a non-glucose energy source that simultaneously fuels brainpower and mitochondrial energy output for enhanced exercise endurance.
- *Creatine*: an organic compound used to produce cellular ATP energy, creatine is a popular pre-workout energy booster that boosts cognitive performance, exercise endurance, and strength.

- *L-Citrulline*: as a nitric oxide (N.O.) booster, L-citrulline enhances delivery of oxygen and nutrients to neural and muscle tissue, while also promoting aerobic energy production for improved endurance.

## Stress Management

Exercise combined with a high-stress work environment may throw the brain and body into “excess stress” territory, which may have a negative effect on your cognition and metabolism.

For bodybuilders, the two types of stress that nootropics may help mitigate to improve performance and anabolic muscle growth are:

1. *Cortisol*: though critically important to exercise performance, excessive activity of stress hormone glucocorticoids (such as cortisol) associated with chronic stress may detrimentally impact bodybuilding health and fitness.
2. *Oxidative Stress*: overtraining may contribute to an overproduction of harmful free radicals (oxidative stress) that damage muscle tissue and catalyze proteins, in addition to many other negative health consequences.

Respectively, nootropic adaptogens, a class of supplements that help regulate the body’s stress response system, and nootropic antioxidants may help combat excess stress hormone activity and oxidative stress, resulting in clearer, calmer cognition and a more anabolic muscle metabolism.

Examples of Nootropics for Stress Management:

- *L-Tyrosine*: perhaps the ultimate stress relief nootropic, L-tyrosine may significantly improve cognitive performance under conditions of excess stress and fatigue.
- *Phosphatidylserine*: involved in the formation and integrity of the cell membrane bilayer, PS is a phospholipid nootropic that may help combat exercise-induced stress and the physiological deterioration associated with overtraining.
- *L-Glutathione*: viewed as the “master antioxidant,” L-glutathione is a natural compound produced by the body to combat oxidative stress that, when supplemented, *may significantly improve lipid (fat) metabolism and muscle acidification to reduce muscle fatigue during exercise.*

## Rest and Recovery

The relationship between exercise and sleep is mutual:

- Poor sleep encourages daily inactivity.
- Daily inactivity promotes poor sleep quality.

In a sense, a good night's rest has to be earned by a hard day's work—i.e., by not skipping out on leg day. But this is easier said than done when caught in a fatigue-inactivity loop, which is why taking sleep promoting nootropics at night may help you not only feel well-rested enough for an excellent workout during the daytime but also maximize your anabolic growth and repair processes overnight for an all-around boost on your bodybuilding health and performance.

Examples of Nootropics for Rest and Recovery:

- ***Montmorency Tart Cherry:*** supplying joint-soothing antioxidants and natural sleep-supportive melatonin, Montmorency tart cherries are an excellent rest and recovery option for bone-tired, muscle-torn bodybuilders to get better sleep.
- ***L-Tryptophan:*** in addition to improving mood and sleep quality, L-tryptophan's effects on the serotonergic system may also decrease fatigue perception during certain combinations of aerobic and anaerobic exercise.
- ***Magnesium:*** compounding our suboptimal magnesium intake in the diet, exercise also promotes magnesium depletion via the loss of minerals through sweating, making supplementation of magnesium, a mineral associated with cognitive composure and sleep quality, a must for bodybuilders.

## Benefits of Choline for Bodybuilding

**Choline, sometimes referred to as vitamin B4, plays a major role in supporting focus, building strength and power, and accelerating recovery.**

Alpha-GPC

<https://neuroactive.co.za/products/alpha-gpc>

Article reference

<https://breakingmuscle.com/fitness/is-choline-deficiency-killing-your-performance>

Cholinergics (Choline supporting nootropics)

<https://neuroactive.co.za/collections/choline>

## What is Choline?

Choline is a water-soluble vitamin grouped with the B-complex family of vitamins. It acts as a precursor to the neurotransmitter acetylcholine, which plays a major role in supporting nervous

system function in the body, a key area for any serious athlete. While many of the positive adaptations you experience from lifting heavy weights or performing explosive movements are due to building muscular strength, your nervous system also plays an important role.

Your nervous system adapts, becomes more efficient, and allows your muscles to fire with increased potency. These neurological adaptations require acetylcholine, but you can't eat acetylcholine. However, you can increase your dietary or supplemental intake of acetylcholine precursors like choline to improve your power, performance, and recovery.

## Muscle Contraction

Choline is a precursor to acetylcholine (ACh), a neurotransmitter that mediates muscle contraction.

## Choline and Power Production

While most athletes are familiar with creatine and protein supplements to support intense training, acetylcholine precursors like choline or alpha-glycerolphosphorylcholine (A-GPC) may hold the potential to unlock significant gains in strength.

A recent study of college-aged males investigated the impact of only six days of A-GPC supplementation on lower-body and upper-body isometric strength. The trainees performed a mid-thigh pull on a force plate and an isometric push-up style press using a load cell. After supplementing with 600mg of A-GPC for 6 days, the athletes had significant gains in lower-body strength.

## Choline and Growth Hormone

In the brain, acetylcholine acts as a neuromodulator, a chemical that impacts your mental focus, arousal, and motivation. New research shows A-GPC may have significant impacts on anabolic hormone response to exercise, specifically growth hormone (GH), which is responsible for many of the positive adaptations experienced from training, such as increased strength and lean muscle mass.

Recently, a randomized, placebo controlled-trial of thirty-year-old men examined the impact of 600mg A-GPC supplementation before training on growth hormone response. The athletes performed 6 sets of 10 reps of squats at 70% of their 1-rep maximum, followed by 3 sets of 10 reps of bench press at 50% of their max. The athletes' growth hormone levels were then tested immediately post-exercise, and again at 5, 15, 30, 60, 90, and 120 minutes post-exercise.

**Researchers found growth hormone release post exercise peaked 44-times higher with A-GPC supplementation compared to placebo.**

## Choline and Reaction Time

A recent study of active men and women tested the impact of a supplemental A-GPC formula (containing other choline forms of acetylcholine precursors) after 10 minutes of exhaustive exercise. First, all the athletes had to answer a questionnaire on feelings of focus and alertness, and perform a 4-minute quickness and reaction time test.

Next, they engaged in 10 minutes of exhaustive exercise. Once the athletes were tired, the researchers repeated the initial alertness and reaction time testing to see how the intense training impacted their mental function. Over the course of four weeks, the athletes consuming the pre-workout A-GPC formula were able to maintain their initial reaction time and alertness to a significantly greater degree than the placebo group.

## Choline and Hormone Regulation

Acetylcholine also plays a pivotal role in building your resiliency by supporting your natural daily hormonal rhythm. Choline supports the hippocampus area of your brain, which sets your daily circadian hormonal output.<sup>6</sup> Cortisol is your body's natural stress hormone, produced at higher levels in the morning and lower levels at night. If you're run down and tired from intense training, your daily circadian cortisol rhythm will suffer and you'll find yourself sluggish in the morning, hitting snooze multiple times, or struggling to fall asleep at bedtime.

Stress damages the hippocampus area of the brain, lowering your resiliency and potentially your performance in the gym. **Increasing your choline intake can help support your brain and hippocampus function.**