

Choline From Glaxon: Three Sources of Choline For a Maximum Neurological Boost

written by Mike Roberto | February 17, 2020



Glaxon Goons, get ready for more epic products coming soon!

Glaxon is one of the newest and most talked about supplement brands for 2020. Although they launched at the end of 2019, their products are getting people hyped up for what else is in store. Most people will look at Glaxon's labels and fail to realize how well they're packed to the brim with ingredients that result in *serious* effects. More than a few people have tried one of their products and have been completely caught off guard with how powerful they are.

How is Glaxon able to formulate such effective supplements? They're true industry veterans with several years of experience, so after plenty of trial and error at *other* companies, Glaxon knows what works best and decided to apply it to their own form factor. If you watch their YouTube channel under the name of *Supplement Lab*, you can get a good idea of how well Glaxon understands *physiology* and *pharmacology*. Having a solid education on the way supplements affect the body and interact with each other, gives Glaxon an edge on their competitors.

Why are Glaxon's Products So Effective?



Adrinall is a potent nootropic designed to increase focus, motivation, memory, and kick your procrastination goodbye.

If you start looking at some of Glaxon's formulas, you'll notice there are some never-before-seen trademarked blends such as **Cholinace** listed. People are starting to wonder why these proprietary blends are included, and if that's what makes Glaxon's products more effective than others.

Two of Glaxon's best sellers, **Specimen**, a *high-stim pre workout*, and **Adrinall**, a *potent nootropic*, both have Cholinace inside. This ingredient is a **proprietary blend of three different choline sources**, but is that really necessary, or is it just a marketing tool? Glaxon has the answer for you, because every ingredient they place in a formula has a *specific purpose* and it's not just marketing.

In this post, we're going to discuss all you need to know about **Cholinace** so you understand the *ingredients, purpose, and benefits* it provides. Glaxon is about to turn the supplement industry upside down with all they have planned, so make sure you're subscribed to Glaxon news alerts and don't miss out on what's coming next from PricePLOW's Supplement Brand to Watch for 2020.

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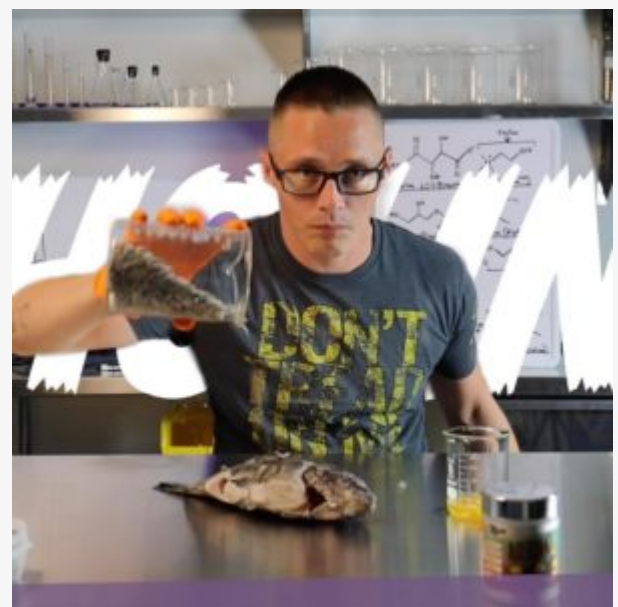
The Importance of *Choline*

Before we break down what *Cholinace* is all about, let's first refresh on why **choline** is an essential nutrient and contributes to several functions within the body. Choline is naturally found in some foods such as fish, poultry, meat, dairy products, eggs, and sunflower seeds. However, with the rise in popularity of vegan and vegetarian diets, choline deficiency is becoming more of a concern. Therefore, it's crucial to make sure you get enough from food or use a supplement because an insufficient amount can lead to major health determinants such as fatty liver disease, organ/muscle damage,[1] and anecdotally, a serious amount of *brain fog*.

Choline's Primary Roles

Choline is essential for maintaining the structural integrity of cell membranes,[2] but it's also a precursor to several substrates within the body.

- **Acetylcholine production**



Why is Joey pouring sunflower seeds all over a dead fish? To help explain choline of course!

Choline is most well-known for being a precursor to the production of *acetylcholine*, a neurotransmitter involved cell to cell communication. Acetylcholine is found in high concentrations at neuromuscular junctions,[3] which, as the name suggests, is the gap between a muscle fiber and the nerve that tells it to contract or relax.

Thus, acetylcholine helps facilitate muscle contractions, which improves "mind-muscle connection", coordination, and balance. Acetylcholine is also involved in the central nervous system (CNS), where it helps improve memory, learning, attention, and alertness.[4,5]

- **The Betaine-Homocysteine Methyl Connection**

Choline can also be oxidized into *betaine*, an osmoregulator involved in *betaine-homocysteine methyltransferase* activity that contributes to the blunting of homocysteine formation.[1,6] After being converted to betaine, it's able to provide a one-carbon unit for the transfiguration of *homocysteine to methionine*, resulting in the formation of a universal methyl donor, *S-adenosylmethionine* (SAME).[6]

Excessively high levels of homocysteine are linked to a decrease in cognitive function and increased risk of cardiovascular disease.[6]

As you can see, getting enough choline is crucial for a wide variety of reasons. Therefore, if your diet is lacking supplementation is highly recommended!

Cholinace Component Ingredients

Now that we understand the importance of choline, let's break **Cholinace** down to recognize why *three* different sources of choline are included. Although it's shown as a proprietary blend on the labels, we can disclose that it's always set to a *2:1:1 ratio* regardless of the total dosage included in the product.

- **VitaCholine (Choline (L+) Bitartrate)**



Choline Bitartrate is first on our list, which is trademarked as *VitaCholine* from a leading ingredient supplier, *Balchem*. This form of choline is coupled with *bitartate* (*tartaric acid*) to improve bioavailability, absorption, and taste. When it enters the body, the choline is able to dissociate from bitartrate and become a direct precursor to *acetylcholine*. This yields better effects because it helps prevent the choline from being destroyed and becoming unusable during digestion.

Note the L+ Bitartrate!

It's important to note that the majority of choline bitartrate being sold is *racemic*, meaning its a mixture of *dextrorotatory* and *levorotatory enantiomers* (also called DL-Choline Bitartrate). Consider these to be "right-handed" and "left-handed" molecules – they're the same formula, but are flipped and do not superimpose onto each other, leading to different biochemical effects.

The main issue with this is that the *levorotatory* enantiomer is the only one that's *bioactive*. Thus, an equal mixture of the two would only *yield 50%* of the active ingredient the body can actually use. So you would need a much higher dose of the racemic version to get the same effects.

You won't have to worry about that with VitaCholine because it's *100% L+Choline* so you're only getting the bioactive form!

VitaCholine: Purity and Third-Party Verification Labs

In addition, VitaCholine is manufactured under strict regulations to ensure safety, purity, and potency. They even partner with third-party verification labs which test the ingredients so consumers can be confident in what they're taking. Glaxon has the best form of choline bitartrate to kick off the Cholinace blend!

- Alpha-GPC



Specimen is truly one of a kind with how strong it is!

Next on our list is **alpha-glycerolphosphorylcholine (Alpha-GPC)**, which is known as being highly bioavailable and quickly absorbed upon ingestion. Alpha-GPC is able to cross the *blood brain barrier* and can help synthesize more acetylcholine after it's converted into *phosphorylcholine*.^[7] More supplements have included Alpha-GPC the past few years because of how effective it is at increasing cognition, power, and performance.^[8-11]

A study done in 2015 found **six days of Alpha-GPC supplementation at 600mg was effective at increasing lower body force production**, which is a pretty significant change in such a short period of time.^[8]

There are two forms of Alpha-GPC available for use in supplements, *50% Alpha-GPC* and *>50% Alpha-GPC*. The 50% version is a fine white powder, which makes it ideal for capsules and powdered products. The >50% version starts to turn into a thick liquid substance and is therefore rarely used unless it can be put into a gel capsule or liquid. So if you see Alpha-GPC listed on a product there's a very high chance it's the 50% version.

• Citicholine

Citicholine, also known as *Cytidine 5'-Diphosphocholine (CDP-Choline)*, is one of Glaxo's favorites because not only does it help increase acetylcholine, it also has its own unique mechanisms. This form of choline is able to **increase norepinephrine and dopamine levels as well as dopamine receptor density**.^[12]

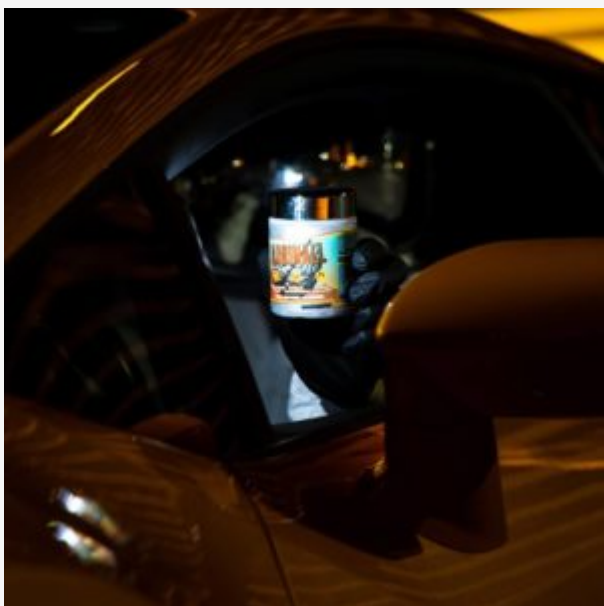
Norepinephrine (noradrenaline) is a powerful catecholamine that acts as a hormone and neurotransmitter in the body. Within the brain, it's involved in arising alertness, memory, and attention. It also increases heart rate, blood flow to skeletal muscles, and blood sugar levels to give you more energy. Dopamine is our "feel good" neurotransmitter that plays a crucial role in how we perceive pleasure, reward, and motivation.

CDP-Choline has some quite interesting and unique effects on the body. Although some will argue it does not boost acetylcholine as well as Alpha-GPC, it's still great to supplement with for the host of other benefits it provides. It makes sense to be in a blend with other choline sources like CholineACE so you're getting the best of both worlds.

Watch Joey Savage from Glaxo explain the science behind Cholinace and how it was developed on The Supplement Lab's YouTube channel:

[SUBSCRIBE ON YouTube](#)

Cholinace: Formulated For Maximum Effectiveness



Not only does **Adrinall** feature Cholinace, it includes one more source of choline for some added benefits!

The Goons over at Glaxon know how to have a bit of fun, while creating epic formulas the industry has never seen. They're not here to follow trends, Glaxon is here to make some noise by carving their own path. A lot of time is spent on research, testing, and formulating to create the best products around. Cholinace is just an example of how Glaxon goes above and beyond to ensure you get the most benefits out of their products.

Don't be fooled by the label, every single Glaxon product is stronger than it looks, you just need to dig a little deeper, keep an open mind, and try them for yourself... sometimes at *half* a serving size! Team PricePLOW is beyond excited for what's to come from this newcomer, because they've taken multiple veterans from the industry to create a powerhouse team capable of greatness. Make sure to stay tuned with all things Glaxon, because this is just the beginning!

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