

RAW Nutrition RAW PRE: Low-Stim Pre-Workout (100mg Caffeine)

written by Mike Roberto | January 14, 2021



RAW Nutrition launched in July 2020 with six products, all designed to *optimize sports performance*. This one takes that to a whole new level:

RAW PRE: Less Stims; More Pumps & Focus

To kick-start the year, RAW Nutrition is releasing a new pre-workout, simply called RAW PRE. Similar to other RAW supplements, RAW PRE has a fully transparent label, which means the company lists the exact amount of each ingredient on the product label. RAW PRE is also made with efficacious doses of ingredients scientifically proven to boost energy, pumps, focus, and performance, such as:



RAW PRE may be low on the stimulants, but it delivers intense focus, pumps, and performance!

- Nitrosigine from Nutrition21
- GlycerSize glycerol
- L-citrulline malate
- L-tyrosine
- Alpha-GPC

One of the most interesting things about RAW PRE is that, compared to other pre-workouts, it's fairly **low on stimulants**. Two scoops only contain **100 milligrams of caffeine**, whereas it's common to see anywhere from 250 to 350 milligrams in other pre-workouts. However, RAW PRE contains another ingredient that, in combination with other natural stims, can really get you going.

Keep reading to learn more about RAW PRE and sign up for PricePLOW's RAW Nutrition news and deal alerts below!

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RAW PRE Ingredient Breakdown

If you're new to stimulants, RAW Nutrition recommends consuming just one scoop of RAW PRE with 6 to 8 ounces of cold water 20 to 30 minutes prior to training. Following that, users have the option to increase their serving size to one and a half or two scoops. For this ingredient analysis, we discuss the full two-scoop serving size.

Here's what one serving (19 grams) of RAW PRE contains:

- **L-Citrulline Malate – 7g**

SUPPLEMENT FACTS		
Serving size: 1 scoop (9.5 grams)		
Servings per container: 40		
Amount Per Serving	% DV*	
	1 SCOOP	2 SCOOPS
L-Citrulline Malate	3.5g**	7g **
GlycerSize™ (65% Glycerol Powder)	1.5g	3g **
L-Tyrosine	1g**	2g **
Agmatine Sulfate	750mg**	1.5g **
Nitrosigine® (Inositol-Stablized Arginine Silicate)	750mg**	1.5g **
Alpha GPC 50% (L-Alpha-glycerolphosphorylcholine)	300mg**	600mg **
Caffeine Anhydrous	50mg**	100mg **
Citrus Aurantium (standardized to synephrine at 30%)	34mg**	68mg **
Huperzine 1% (Huperzia serrata Leaf Extract)	10mcg**	20mcg **

*Daily Values based of a 2,000 calorie diet
**Daily Value (DV) not established

The Raw Nutrition Raw PRE Ingredients – Image updated in 2022 (Citrus Aurantium / Synephrine replaced Yohimbine)

L-citrulline malate is a mixture of citrulline and malic acid. The amino acid is naturally found in certain types of fruit, melon, and gourds, such as watermelon.[1] It's commonly added to pre-workout supplements to boost nitric oxide levels and expand blood vessels, known as vasodilation.[1-3] This allows working muscles to receive oxygen and nutrients more efficiently. It also helps the body expel metabolic waste, such as lactic acid.[1-3] Thus, supplementing with L-citrulline can increase muscular endurance, strength, and stamina, while it also promotes greater muscular pumps.[1-3]

Malic acid, on the other hand, plays a significant role in the production of adenosine triphosphate (ATP), which is the cell's primary energy source.[2]

Having greater levels of ATP further boosts performance and energy levels. A study published in the *Journal of Strength and Conditioning* found that supplementing with citrulline malate can significantly improve exercise performance during lower-body resistance exercise, even in advanced resistance-trained men.[2]

Moreover, other studies have shown that citrulline malate supplementation may:

- Boost performance (especially during high-intensity strength and power activities)
- Reduce post-exercise exertion rating
- Lower blood pressure
- Decrease muscle soreness[1-3]

Based on the literature, 6 to 8 grams of citrulline malate is considered a clinically-effective dose. RAW PRE provides 7 grams in a single serving (or two scoops).[1-3]

• **GlycerSize (65% Glycerol Powder) – 3g**

To further promote muscular pumps and hydration, RAW PRE contains 3 grams of GlycerSize (a more stable form of glycerol powder), developed by Pinnacle Ingredients. The primary reason RAW Nutrition uses GlycerSize, as opposed to a generic form of glycerol, is because they want to eliminate clumping.



Looking for more pump? RAW Pump has you covered!

Since glycerol powder has such a strong attraction to moisture, when exposed to water or humidity in the environment it hardens into a solid mass. Not only

is this extremely inconvenient for consumers, but it has been known to ruin thousands of dollars of inventory for companies. GlycerSize, with 65% stabilized glycerol, has a much lower proclivity to clumping. So it's a win-win for everyone.

Perhaps you're wondering why anyone uses it in the first place? Well, glycerol has a unique mechanism of action and benefits that few other ingredients can offer.

Glycerol is a sugar alcohol known for its hyperhydration properties and promotes water retention.[4] Throughout the body, it's quickly absorbed and distributed to cellular compartments. By increasing osmotic pressure, glycerol enhances total water volume and hyperhydration.[4,5]

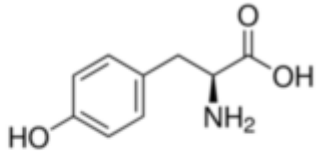
It's well established that proper hydration is essential for maximizing performance, pumps, and overall health. That's what makes supplemental glycerol so valuable. It's also been shown to help:

- Boost hydration
- Improve muscular endurance
- Enhance cardiovascular efficiency
- Increase muscular pumps
- Improve thermoregulatory efficiency[6-11]

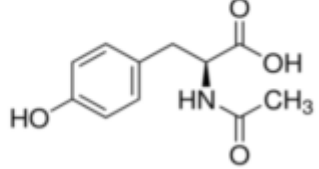
GlycerSize works through a different mechanism of action than other ingredients in RAW PRE, such as citrulline malate. It creates what we like to call "water-based pumps." The ingredient helps pull water into muscle cells and causes a swelling effect. Citrulline malate, on the other hand, increases pumps by enhancing blood flow via elevated levels of nitric oxide. So by combining GlycerSize and citrulline malate, you get the best of both worlds, with no mechanistic overlap.

Learn more about glycerol in our article titled *Glycerol: The Ultimate Guide for Hydration, Heat Protection, and Pumps*

- **L-Tyrosine – 2g**

L-Tyrosine 

VS

N-Acetyl L-Tyrosine 

blog.PricePlow.com/nootropics

Long story short from our analysis – For the best effects from tyrosine, choose the *regular* L-Tyrosine version!

In an effort to increase focus and help the body adapt to stress, RAW PRE uses 2 grams of L-tyrosine. Since L-tyrosine is classified as a conditionally essential amino acid that the body can produce endogenously, you don't necessarily need to consume it on a daily basis. However, when you're under increasing amounts of stress, such as during intense exercise, it can be beneficial to consume L-tyrosine. Studies have shown that supplementation enhances:

- Alertness
- Focus
- Mood
- Mental energy[12]

L-tyrosine carries out its effects by increasing the production of norepinephrine, epinephrine, and dopamine, which are three essential neurotransmitters.[12] Neurotransmitters are chemical messengers required for cell-to-cell communication. They help facilitate nearly every physiological process in the body. High-stress situations (i.e. exercise) can deplete neurotransmitter levels, leading to a decline in performance, difficulty concentrating, plus mental and physical fatigue.

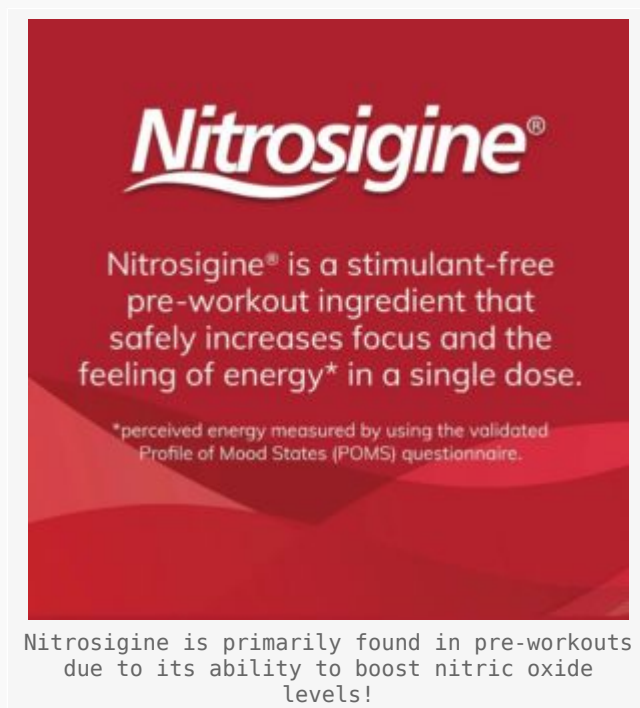
So supplementing with L-tyrosine prior to exercise can help prevent the depletion of these neurotransmitters.[12] Additionally, one study published in the journal *Military Medicine* found that consuming L-tyrosine prior to stressful events improves cognitive function, performance, and adaptation.[12] RAW Nutrition also includes L-tyrosine in their stimulant-free pre-workout, RAW Pump.

- **Agmatine Sulfate – 1.5g**

Agmatine sulfate is a metabolite of L-arginine, meaning that it's produced from arginine metabolism.[13] The compound is known for its ability to serve as an arginase inhibitor– it prevents arginine from breaking down.[13] This is very advantageous since RAW PRE Nitrosigine and L-citrulline malate work to increase arginine levels. Agmatine sulfate is here to ensure arginine levels stay elevated for your entire workout!

Nitrosigine, L-citrulline, and agmatine sulfate could very well be the triple threat for maximal arginine production, resulting in greater nitric oxide synthesis, pumps, and performance. Research also shows that agmatine sulfate is capable of activating the enzyme that produces nitric oxide, known as nitric oxide synthase.[14] And agmatine sulfate may also provide a slight boost in focus since it seems to express neuromodulatory properties and can act as a neurotransmitter.[15] Agmatine sulfate is also in RAW Pump!

- **Nitrosigine (Inositol-Stabilized Arginine Silicate) – 1.5g**



The second trademarked ingredient in RAW PRE is Nitrosigine, by Nutrition21. It's a patented complex of arginine, inositol, and silicate. Nitrosigine is one of PricePlow's personal favorite nitric oxide boosters because of how effective it is at such a small dose. A 2020 study from the University of Arkansas found that just 1.5 grams of Nitrosigine are just as effective at boosting nitric oxide levels as 8 grams of citrulline malate.[16]

Nitrosigine has also been shown to boost:

- Energy levels
- Focus
- Cognitive flexibility
- Recovery[16-22]

Some evidence suggests that Nitrosigine helps reduce inflammation and combats excessive muscular damage from intense exercise.[22] Essentially, Nitrosigine is a superior form of L-arginine because it doesn't break down in the digestive system due to the addition of inositol and silicate. This allows the body to utilize the majority of L-arginine for nitric oxide production.

Furthermore, inositol is a carbocyclic sugar. It's highly concentrated in the brain and plays an important role in cell-to-cell signaling, via the phosphatidylinositol (PI) cycle.[23] Simply put, the additional inositol is the reason why Nitrosigine increases cognitive, as well as physical, performance.[15-22]

Learn more about Nitrosigine:

- *Nitrosigine: The Nitric Oxide Booster That Enhances Brain Function*
- *Nitrosigine Put to the Test Against Citrulline Malate: New University Study*
- *Nitrosigine Prevents Cognitive Decline After Strenuous Activity*

- **Alpha-GPC 50% (L-Alpha Glycerylphosphorylcholine) – 600mg**

RAW PRE has 600 milligrams of alpha-glyceryl phosphorylcholine (alpha-GPC) to increase acetylcholine production. Similar to dopamine, norepinephrine, and epinephrine, acetylcholine is a neurotransmitter that assists with cell-to-cell communication. It's highly concentrated in neuromuscular gap junctions (the points at which the nervous system interacts with skeletal muscle). Therefore, acetylcholine is essential for carrying out muscular contractions.



RAW Nutrition is now BSCG Certified Drug-Free!

Since alpha-GPC is a direct precursor to acetylcholine, it's very effective at increasing acetylcholine levels. As we mentioned before, intense and/or prolonged bouts of exercise can deplete neurotransmitter levels, so supplementing with an extra source of choline can be beneficial.

Studies have shown that alpha-GPC can boost:

- Focus
- Mental energy
- Mind-to-muscle connection
- Strength
- Performance[24-26]

Moreover, choline is an essential nutrient that's needed for optimal health, not just performance. Several studies have found that supplementing with alpha-GPC can enhance both cognitive function and physical performance.[24-26]

• **Caffeine Anhydrous – 100mg**

Caffeine is the most studied supplement ingredient and has been shown, time and again, to significantly increase both physical and mental performance.[27,28] Caffeine primarily works by blocking adenosine from binding to its receptors.[27,28] Adenosine is a nucleoside that induces a slow down in neural activity, which leads to mental and physical fatigue. Since caffeine prevents this from occurring, it's extremely effective at quickly boosting energy levels.



RAW Burn will increase fat loss, energy, and focus!

But that's not all caffeine can do!

Caffeine also inhibits the enzyme that breaks down cyclic adenosine monophosphate (cAMP), known as phosphodiesterase.[27,28] Cyclic adenosine monophosphate is a secondary messenger that plays a key role in carbohydrate and fatty acid metabolism. Thus, greater levels of cAMP can increase ATP production, which also leads to an increase in energy. Furthermore, studies have shown that caffeine decreases pain perception and supports fat loss.[27,28]

Unlike the majority of stimulant-based pre-workouts on the market, which can contain anywhere between 250 to 350 milligrams of caffeine, RAW Nutrition decided to use a fairly low dose, at only 100 milligrams. So this is definitely something that makes RAW PRE stand out. RAW Nutrition also opted to use caffeine anhydrous, as opposed to forms like natural caffeine, because it's one of the most fast-acting and studied sources of the stimulant on the market.[27,28]

- **Citrus Aurantium (standardized to *Synephrine* at 30%) – 68mg**

Updated from the original formula, **citrus aurantium** is standardized for a total of 20 milligrams of **synephrine** in *two* scoops. As a beta-3 adrenergic receptor agonist, synephrine can increase total energy expenditure and help with lipolysis – and it adds some great workout energy as well. Like the caffeine dose, this is about one-half to one-third of what we often see, so it shouldn't be overwhelming.

- **Huperzine A 1% (Huperzia Serrata Leaf Extract) – 20mcg**

In order for alpha-GPC to maintain elevated levels of acetylcholine, RAW Nutrition added 20 micrograms of huperzine A (derived from the Huperzia serrata plant). The 1% on the supplement facts panel means that it contains at least 1% huperzine A, which is a typical standardization.

Huperzine has the unique ability to prevent the breakdown of acetylcholine by inhibiting acetylcholinesterase.[29] As the name suggests, acetylcholinesterase is the primary enzyme that reduces acetylcholine levels. As we mentioned in the alpha-GPC section, acetylcholine is important for maintaining brain and neuromuscular function. Moreover, some studies have shown that huperzine A expresses neuroprotective properties. [29] So you're getting health and performance benefits from this ingredient.

RAW PRE Available Flavors

Here's an updated list of all available RAW PRE flavors:

BSCG Certified – Banned Substance Free!

RAW Nutrition is among one of the few brands that are certified Banned Substances Control Group, or BSCG. This means their products are tested by a third-party laboratory to ensure they're free of banned substances. It was impressive to see what RAW Nutrition accomplished in such a short amount of time, and now they're working to make 2021 even more successful. Learn more about RAW Nutrition and Revive MD's partnership with BSCG.

This is an excellent follow-up to our previously-covered RAW Nutrition supplements that also optimize performance:

PP PricePlow Blog Post

**RAW Nutrition PUMP:
Powered By Nitrosigine!**

Stack with RAW Pump and get ready for
insanity!

- Burn
- Intra-Workout
- Pump
- Protein
- Vegan Protein
- EAA

In addition, after the initial release of these supplements, RAW Nutrition continued expanding its product line throughout the year by dropping:

- Creatine Monohydrate
- Pump2
- Apparel
- Accessories

Better Nutrition Starts With RAW

It's quite rare to see a sports nutrition brand launch six comprehensive supplements at once, attain their BSCG-certification, and sponsor several professional athletes in less than a year. Arguably, it's even rarer for a supplement company to launch without a stimulant-based pre-workout product. RAW Nutrition obviously isn't here to follow the status quo. Don't expect this company to do what everyone else is doing – now or in the future.

RAW Nutrition proves that you don't necessarily need a high-stimulant pre-

workout to make a significant impact on the industry. Instead, Matt Jansen and Dr. Domenic Iacovone created supplements that best suits everyone's needs, including their clients, athletes, followers, and their own.

"We really wanted to make a brand that focused on the individual raw ingredients and not cut corners when it came to the amounts of the most beneficial ingredients from a performance perspective. Our slogan is from the ground up, which simply means taking the most researched ingredients at the doses that are shown to induce the most amount of positive benefit for that ingredient within its individual category and turning them into the best overall products."

-Matt Jansen, Co-Founder RAW Nutrition

Although RAW PRE does contain stimulants, it's one of the gentlest on the market. But that doesn't mean it's not extremely effective. Pre-workouts are more than just an energy drink or powder and RAW PRE is a prime example of that. It's refreshing to see a brand that continues to do things differently from a formulation standpoint. RAW Nutrition had a phenomenal first year, but we're excited to see what's in store for the rest of 2021.

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