


5% Nutrition Core Line Goes Beyond Single-Ingredient Supplements

written by Mike Roberto | April 22, 2021

5% Nutrition's "Go big or go home" philosophy is on display with their newly-launched **Core Line**. "Core Series" supplement lineups are common in many brands, who use them to deliver additional standalone ingredients to bolster their supplement stacks. However, in these formulas, 5% Nutrition has *amplified* them, making them more than just single-ingredient formulas.



The 5% Nutrition Core Line is out, and they're *not* just single-ingredient formulas! Check out these simple yet unique spins on classic supplements that differentiate themselves from the competition.

The lineup consists of *L-Citrulline 3000* with added glycerol powder; *ZMA* with added boron; *Nootropic* that has both a choline source *and* a choline-protective ingredient, *L-Glutamine 5000* with *L-alanine* and *N-acetyl*; *Vitamin C 1000* with zinc and citrus bioflavonoids; and an *Energy* formula with 250 milligrams of caffeine but in a very unique blend.

Classic supplements with *twists!*

The theme is that **these are *not* single-ingredient formulas**, they're synergistic blends to give you what you're really looking for sometimes, without having to take multiple products.

This ingredient-packed performance lineup is designed for seasoned weightlifters and hardcore strength enthusiasts looking for an opportunity to tailor their supplementation to increase performance and recovery. But it's also for beginners and anyone returning to the gym after a hiatus and looking to improve overall health.

5% Nutrition consistently strives to provide weightlifters, strength enthusiasts, and athletes with products that will take their workouts to the next level – and this Core lineup will do just that. As we said with the Kill It Reloaded pre workout, we the brand keep Rich Piana’s legacy going with supplements he’d be proud of – and this Core series is right in line. You couldn’t see Rich Piana just putting out a plain old glutamine formula, could you?!

You can read all about each product and their ingredients below, but first sign up for PricePLOW’s 5% Nutrition news:

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Now let's get into each supplement in 5% Nutrition's Core lineup.

• L-Citrulline 3000

	Amount Per Serving	% DV
L-Citrulline	3000 mg	*
Glycerol Powder (65% Glycerol)(GlycerSize™)	500 mg	*

* Daily Value (DV) not established

5% CORE

5% Nutrition Core Citrulline also has added glycerol powder for a bit more hydration support!

L-Citrulline 3000 is a supplement that provides 3000 milligrams of citrulline and 500 milligrams of glycerol powder (65% glycerol as GlycerSize) with each one-scoop serving (3.9 grams). Citrulline is an amino acid that increases nitric oxide levels after it converts to L-arginine. More nitric oxide is actually generated by citrulline than L-arginine supplementation due to citrulline's enhanced bioavailability in the body, and we see it in pre workout supplements all the time. But sometimes, you're going *heavy*, and you want even more. This is how you get it done.

Increased nitric oxide levels means better oxygen and nutrient transports, assists in prolonging workouts, and provides high volume pumps. Citrulline also boosts ATP production, which allows you to do more work at a faster rate with better recovery.

Added Glycerol: 500mg

The added glycerol is a nice touch. It's not a large dose, so we won't make any 'claims', but the ingredient does increase osmotic pressure and allow you to hold on to more water, which many athletes love for both endurance and pump effects when taking large enough doses.

Long story short, why just take 3g of citrulline when you can take 3g citrulline *with* some glycerol as well? And that will be the theme of this series.

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• ZMA



ZMA

Supplement Facts

Serving Size: 3 Capsules
Servings Per Container: 60

	Amount Per Serving	% DV
Vitamin B6 (as Pyridoxine Hydrochloride)	10.5 mg	618%
Magnesium (as Magnesium Aspartate)	450 mg	107%
Zinc (as Zinc Monomethione, Zinc Aspartate)	30 mg	273%
Boron (as Boron Glycine)	5 mg	*

*Daily Value not established

Other Ingredients: Vegetable Cellulose (Capsule), Magnesium Stearate, Silicon Dioxide

Core ZMA has added boron – a simple yet brilliant and effective add-on!

It's ZMA, but better! That's because 5% Nutrition takes the standard ZMA formula and adds free-testosterone-boosting *boron* to the mix. This is often taken before bed, and users consistently report better sleep with it, most often due to the magnesium inside.

• Magnesium (as Magnesium Aspartate) – 450mg

Magnesium aspartate is created by bonding magnesium and L-aspartate and has a higher bioavailability than the cheaper magnesium oxide we too often

see (yet lower than magnesium citrate).[1,2] This bonded form is used in nearly all ZMA supplements.

Magnesium is incredible for those who are deficient – and as our over-processed food supply has become stripmined and overfarmed, our foods are becoming lower and lower in magnesium.[3] When covering up for those deficiencies and taking it before bed, the mineral can *dramatically* improve sleep,[4,5] and those effects carry over into ZMA.

Beyond sleep, there are numerous other benefits to using magnesium to avoid deficiency – almost too many benefits to count. Just make sure you get enough in diet or supplement more.

- **Zinc (as Zinc Monomethionine, Zinc Aspartate) – 30 mg**



If you're a ZMA fan, we've found your next ZMA. There's absolutely no reason to use a 'standard' ZMA instead of this boron-enhanced one from 5%!

In ZMA supplements, 30 milligrams of zinc is the most common dose. It's not unusual for zinc levels to be deficient in athletes. It can result in symptoms like decreased libido, lowered immune function, and reduced testosterone levels. For these reasons, we think it's *always* worth taking zinc supplements (whether or not it's in ZMA form).

- **Vitamin B6 (as Pyridoxine) – 10.5mg**

Vitamin B6 is a unique B vitamin that assists in enzyme production and metabolism. The most interesting part of its inclusion into ZMA formulas is how it can produce *wildly vivid dreams*,[6,7] the most commonly discussed "effect" that ZMA users report.

• Boron (as Boron Glycine) – 5mg

Boron is a dietary mineral found primarily in fruits and vegetables. In active males, boron has been shown to support optimal neuron function and alleviate joint inflammation.[8,9] Additionally, studies have shown that boron supplementation can increase free testosterone levels,[10,11] which is why it's often seen in testosterone boosting supplements and pairs perfectly with ZMA.

Boron is not a commonly supplemented mineral and is often overlooked by athletes and those who spend a lot of time at the gym. However, there are a lot of benefits associated with taking a boron supplement, namely the free testosterone support, and it should be considered an essential mineral for active males.

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• Nootropic

NOOTROPIC

Supplement Facts

Serving Size: 2 Capsules
Servings Per Container: 60

	Amount Per Serving	% DV
Choline (as Choline Bitartrate)	39 mg	7%
Calcium (Dicalcium Phosphate)	59 mg	5%
Alpha-Glycerol Phosphoryl Choline 50%	450 mg	*
Choline Bitartrate	100 mg	*
Toothed Clubmoss (<i>Huperzia serrata</i>)(aerial parts)(1% Huperzine A)	100 mcg	*

*Daily Value (DV) not established

Other Ingredients: Vegetable Cellulose (Capsule), Microcrystalline Cellulose, Rice Flour, Silicon Dioxide, L-Leucine, Magnesium Stearate

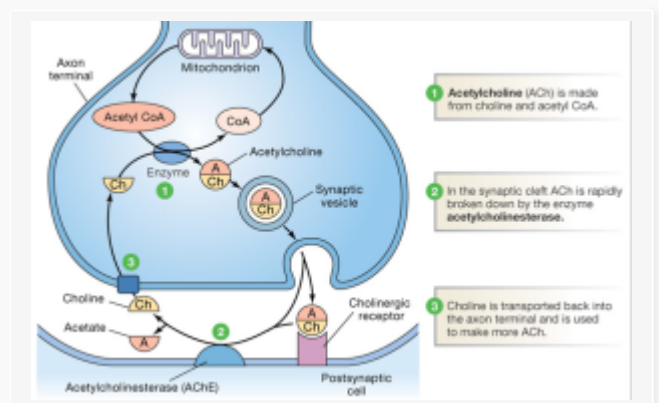
Choline supplement user for your nootropic stacks? Then why use one *without* huperzine A?!

5% Nutrition Nootropic is a unique choline supplement that brings the pro-acetylcholine choline sources *with* an acetylcholine defender. It may sound like a simple idea, but we almost never see this in choline supplements – usually you need to take a massive nootropic that costs twice as much as this, or take multiple supplements. 5% solves that problem:

- **Choline (from Choline Bitartrate and Alpha-GPC)**

Choline is an essential molecule in the body and is required for peak cell functioning.[12] One of the major mechanisms of choline is the synthesis of phospholipids, which is critical to the structural integrity of every cell in your body. Choline is synthesized naturally as phosphatidylcholine, but production typically can't keep up with the body's needs, which makes supplementation essential if your diet does not provide the required amount. Since a majority of dietary choline comes from animal sources like eggs, seafood, and meat, for the vegan demographic, choline levels are often deficient.[12,13]

- **Alpha-Glycerol Phosphoryl Choline (Alpha-GPC) 50% – 450mg**



Improved acetylcholine utilization provides for an 'anti-blurring' effect so that new and old memories do not get confused

Alpha-glyceryl phosphorylcholine (**alpha-GPC**) is an excellent ingredient for increasing focus, which primes it as the star in 5% Nutrition's Nootropic. Alpha-GPC provides choline, which can boost focus, mental energy, mind-to-muscle connection, and strength. It is a precursor to *acetylcholine*, a neurotransmitter that's heavily concentrated in the body and brain – we call it the “learning neurotransmitter”. Several studies have shown that alpha-GPC supplementation can result in enhanced cognitive function and physical performance (including strength increases).[14-16]

- **Choline Bitartrate – 100mg**

Choline Bitartrate is the cheapest and most widely available form of choline available. It contains *41% choline by weight* but is less bioavailable than Alpha-GPC above. We love choline blends in formulas, and are happy to see it here, especially since it's not the dominant form. In pre-workout supplements and nootropic formulas, choline bitartrate is the most commonly used form of the nutrient due to cost, but here it's actually just a support ingredient for the real player in Alpha-GPC.

- **Toothed Clubmoss (*Huperzia serrata*) (aerial parts) (1% Huperzine A) – 100mcg**



Core Nootropic features two choline sources and an acetylcholinesterase inhibitor in Huperzine A.

Huperzine A is found in *toothed clubmoss* and is a cognitive booster working the *other* side of the choline equation – keeping acetylcholine levels around longer. The compound indirectly increases acetylcholine levels by inhibiting acetylcholinesterase.[17] Huperzine is beneficial because it prevents the neurotoxin glutamine from instigating premature cell death. It's also considered a neurogenerative compound due to its potential to create new brain cells.[18,19]

This is what really makes Nootropic a cool little choline supplement. You can go on Amazon and find plenty of choline boosters. But 99% of them don't "play defense" for you like Nootropic does here, keeping acetylcholine around just a bit longer.

Because of this, you can consider 5% Nutrition Nootropic to be an "advanced choline pill" that doesn't need any additional help.

• Calcium (Dicalcium Phosphate)

Calcium is needed for forming and maintaining strong bones and ensuring proper muscle firing. Calcium phosphate is known as tricalcium phosphate in supplements containing 39% elemental calcium. Comparing it against other calcium sources, it's just a fraction below calcium carbonate (40%), but well above calcium citrate (21%), calcium lactate (13%), and calcium gluconate (9%).

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• Energy

ENERGY		
Supplement Facts		
Serving Size: 2 Capsules		
Servings Per Container: 30		
	Amount Per Serving	% DV
Dicaffeine Malate (Infinergy™)	350 mg	*
Theobromine	200 mg	*
L-Theanine	100 mg	*
Theacrine (as TeaCrine®)	50 mg	*
Pterostilbene	20 mg	*
*Daily Value (DV) not established		
Other Ingredients: Vegetable Cellulose (Capsule), Microcrystalline Cellulose, Rice Flour, Magnesium Stearate, Silicon Dioxide		
5% Nutrition Core Energy has a blend of caffeine and several supporting ingredients, including pterostilbene, which we don't see often enough!		

5% Nutrition Energy takes a similar route as Nootropic – it's more than just a caffeine pill. But overall, you'll get roughly **255mg caffeine per two capsule serving**.

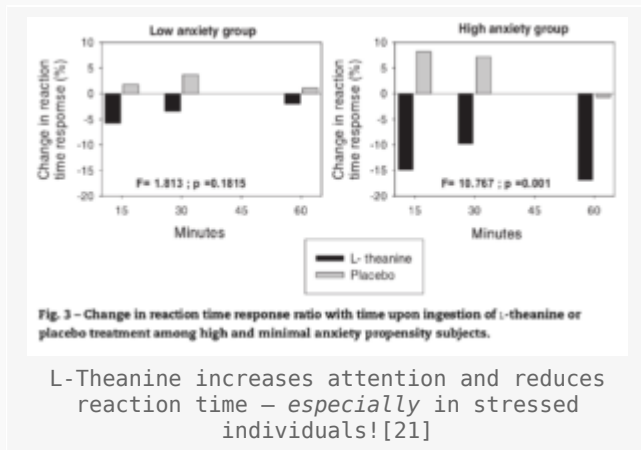
- **Dicaffeine Malate (Infinergy) – 350mg**

Dicaffeine malate is a combination of caffeine anhydrous and malic acid, with a trademarked name of *Infinergy*. It contains roughly 73% caffeine by weight. This is a caffeine molecule bound to malic acid (hence the malate), which makes the caffeine take longer to kick in. This extra time it takes to break down the bond gives you a longer-lasting energy curve with less of a crash.

- **Theobromine – 200mg**

Theobromine comes from the cocoa plant and we often refer to it as “caffeine’s younger brother”. When consumed in high concentrations, it can produce a “feel-good” sensation, an effect you may notice when you eat dark chocolate. Much like caffeine, theobromine imparts a mild stimulatory effect on the body, but it’s smoother and more prolonged, with a longer half-life.[20]

- **L-Theanine – 100mg**



L-theanine, trademarked as *TheaPure* at 200 milligrams, is an amino acid analogue found in tea leaves. Theanine is most known for its potent relaxation and anti-anxiety properties. It helps the body produce *GABA* and, in doing so, **enhances the cognitive benefits of caffeine.**[22,23]

Truth be told, the addition of l-theanine here (as well as theacrine next) make this formula a bit of a nootropic itself!

- **Theacrine (TeaCrine) – 50mg**

Theacrine is a compound that's chemically similar to caffeine and is known for its ability to act as a potent stimulant. It's an alkaloid molecule – which simply means that it's a naturally-occurring substance derived from plant extracts. In its natural form, theacrine is typically found in a traditional Chinese tea known as *Camilla assamica*, or as it's more commonly known, *kucha*. [24]

As many coffee, tea, pre-workout, and energy drink users can attest, caffeine begins to lose its kick sooner than we'd like. Studies have also found that our bodies start developing a tolerance to the drug in as little as four days! [25]

Energy Without the Tolerance Build-Up



A recent study published in the journal *Pharmacological Reports* found that **after seven days of theacrine supplementation, subjects showed no signs of desensitization to Theacrine.**[25] Simply put, theacrine users can expect the same level of potency with nearly every dose and without experiencing a decrease in effectiveness over time.

While we often see theacrine paired with caffeine, we haven't seen this next one for a while:

- **Pterostilbene – 20mg**

Everyone has heard of *resveratrol*, the polyphenolic compound in red wine that's known for eliciting numerous cardiovascular benefits. Pterostilbene is a derivative of resveratrol and often referred to as "better resveratrol" since it's absorbed by the body more easily.

Animal studies using the compound demonstrate that it reduces anxiety, improves mood, and heightens cognitive function.[26] One study on humans (using a higher dose than this, however) showed a slight decrease in weight![27]

To make pterostilbene's effects last longer, it's often paired with caffeine. However, that combination seems to have fallen out of favor in lieu of theacrine. With 5% Nutrition's Energy, we get the best of both worlds!

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• L-Glutamine 5000

Not just your standard L-glutamine supplement, 5% Nutrition adds *alanine* to synergize more gains than other glutamine supplements out there;

• L-Glutamine 5000mg

L-GLUTAMINE 5000

Supplement Facts

Serving Size: 1 Scoop (5.8g)
Servings Per Container: 60

	Amount Per Serving	% DV
L-Glutamine	5000 mg	*
L-Alanine	250 mg	*
N-Acetyl L-Glutamine	250 mg	*

* Daily Value (DV) not established

5% CORE

5% Nutrition Core Glutamine includes synergistic L-Alanine alongside two glutamine ingredients!

Aside from the three BCAAs, the next most frequently supplemented – and scrutinized– amino acid is glutamine. This amino acid is classified as “conditionally essential” due to the fact that most of the time you have enough of it in your body to perform the required functions. (As a side note, glutamine is the most plentiful amino in the body).

During high intensity exercise, however, glutamine stores can be depleted.

At that point, glutamine shifts from conditionally essential to “more essential”. Therefore, it’s a good idea to supplement with glutamine if you ultimately want to maximize your recovery and avoid too much soreness.[28,29]

But where 5% Nutrition does well is adding some of the next ingredient:

- **L-Alanine 250mg**

Once ingested and taken up by the liver, L-alanine is converted into pyruvate. This compound is critical for producing glucose and managing blood sugar levels,[30] although at 250mg we don’t see *too* much glucose getting generated.

Prolongs glutamine uptake



Why take glutamine when you can take glutamine + alanine?!

The real reason alanine is here is because it helps glutamine absorption. Glutamine can help with recovery, but the stomach absorbs it and not much will make it to the muscle tissue. With alanine by its side, glutamine travels further,[31] getting more to the muscle tissue!

Also consider that a compound of *bound* glutamine and alanine even had a study that demonstrated better skill-based performance and reaction time against water,[32] and can prevent muscle protein breakdown in a post-surgical setting,[33] but it’s important to note that those two studies were on *alanyl-glutamine* and may not apply here.

Regardless, there definitely seems to be synergy between glutamine and alanine, and we’re glad that 5% Nutrition didn’t make *yet another* standalone L-Glutamine supplement.

But we're not done yet:

- **N-Acetyl L-Glutamine – 250mg**

N-acetyl L-glutamine is an interesting form that partially prevents changes in body weight and in intestinal immunity induced by protein energy malnutrition.

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- **Vitamin C 1000**

If you're taking Vitamin C, it's often for *immunity*. So why not include some extra immune-boosting help from **zinc**? That's exactly what 5% Nutrition did here!

- **Vitamin C (as Ascorbic Acid) – 1,000mg**



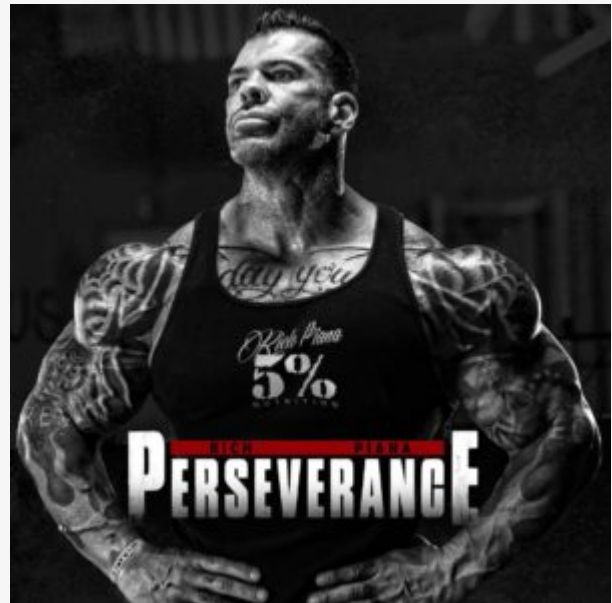
Not just Vitamin C, but Vitamin C with bioflavonoids *and* zinc... since most folks are going after immunity in the first place!

Vitamin C is a water-soluble vitamin, a powerful antioxidant, and cofactor for various regulatory genes and enzymes.[34] It's also heavily involved in the immune system. Thus, insufficient vitamin C intake increases your chance of becoming sick.[34]

Vitamin C has various key functions, including scavenging free radicals, strengthening the epithelial barrier (keeps pathogens from entering the body), increasing phagocytic cell activity (such as neutrophils, which remove and destroy pathogens). It's also needed for apoptosis (programmed cell death), removing dead cells, and boosting the proliferation and differentiation of T- and B-lymphocytes.[34]

Moreover, due to an increase in metabolic requirements, infections and illnesses significantly affect vitamin C levels. So supplementing with more than the recommended daily allowance can help ensure that you consume an adequate amount.[34] A systematic review from the journal *Nutrients* states that *"Supplementation with vitamin C appears to be able to prevent and treat respiratory and systemic infections."*[34]

- **Zinc (as Zinc Citrate) – 10mg**



The man's legendary status would have persevered regardless, but 5% Nutrition is putting together some *fantastic* functional foods to keep Rich Piana's legacy going strong!

Zinc is an important trace mineral that has a wide range of benefits. Research has shown that zinc can help shorten the duration of a cold and protect against respiratory tract infections. Not getting enough zinc is known to weaken the immune system.[35-37] To ensure that the mineral is absorbed properly by the body, it needs to be combined with another compound.

Although zinc is available in several forms, for immune support, zinc citrate is one of the most effective compounds, and better than the cheap zinc oxide found in mainstream supplements.

- **Citrus Bioflavonoids 50% (citrus aurantium) (fruit) 10mg**

Extracts from citrus fruits have gained popularity in recent years for their various health benefits. Noted effects can range from reduced blood pressure to improved diabetes markers and weight loss.[38,39]

Including these citrus flavonoids in Vitamin C 1000 serves two purposes. First, the flavonoids improve the vitamin's bioavailability (we've found that many ingredients work better when they're paired with their naturally-found partners). But what we're really after are some *performance* and *muscle-building* properties, namely from *naringenin* and *tangeretin*. **Both target the AMPK signaling pathway** and it's via this pathway that citrus flavonoids are able to **increase cell uptake of glucose!**[40,41]

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Conclusion: A Not-so-standard “Core” Series

Once again, Rich Piana would be proud. We don't need yet another standard L-Glutamine supplement, and we haven't for years. It's great to support our favorite brands and get our support supplements all in one order, but if you're going to do something, do it *uniquely* and *effectively*.



Not your average “core” series!

5% Nutrition does just that with their Core Line – solid formulas that *aren't* just single-ingredient formulas. While Nootropic and Energy are the two standouts, we enjoy seeing glycerol next to a nitric oxide booster in citrulline, and also think alanine is worth looking into when considering glutamine.

Would you expect anything different from the brand behind **Crea-Ten**, the creatine supplement with *TEN* different forms of creatine?!? You didn't forget about that one, did you? Because when it comes to the Core Line, we must pay homage to

Rich's *original* core supplement – the most interesting creatine on the planet. This is the way he wanted it.

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