

# CBum Essential Pre-Workout: Just the Raw Essentials

written by PricePLOW Staff | February 2, 2023

Mr. Olympia Classic Physique winner *Chris Bumstead*, also known as CBum, has quickly transformed his partnership with Raw Nutrition into an industry leader. The *CBum Thavage Pre-Workout* is already an industry classic, and every product announcement of his gets us excited to see what he has in store next.

One unfortunate trend in the supplement industry has been *higher and higher* prices for the consumer. Since 2020, this has been driven in large part by supply chain disruption and price shocks, with across-the-board inflation playing a big role as well.



## Do you *really* need 18 active ingredients in pre-workouts?

But another factor not often discussed is the kind of *ingredient arms race* that the supplement industry has gotten locked into. We see more and more premium designer ingredients getting crammed into every kind of formula you can think of.

Sometimes this is a good thing, and actually improves product efficacy. But just as often, it's unnecessary and detracts from the central goal of the supplement. Creating a true *do it all* formula is tough, and requires a lot of expertise and even artistry on the part of the supplement formulator.

Either way, it raises costs and these get passed along to the consumer.

## **CBum Essential Pre-Workout: Just the essentials, at a lower price**

That's where **CBum Essential Pre-Workout** comes in.

This is a pre-workout supplement that's been carefully pared down to only the most time-tested, efficacious ingredients that will give you the maximum *bang for your buck*.

And, as you'll see in our price widgets below, it's a very attractively-priced product – *half* the cost of some newer “mega formulas”.

So can it compete with more intense offerings that increasingly dominate the supplement news sphere? Let's find out – but first, check PricePLOW's coupon-powered deals and news below:

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## **CBum Essential Pre-Workout Ingredients**

A single 13.3 gram scoop will net you the following active ingredients:

- **L-Citrulline – 4000 mg**



Just the essentials. The official supplement facts panel image is below.

**Citrulline** is a great ingredient to kick off the *essential* formula. It's currently the supplement industry's most widely used *nitric oxide-boosting* ingredient.[1]

As a *conditionally essential* amino acid, citrulline is something your body can produce on its own – but in limited quantities. This means that under normal circumstances, your body can probably create enough citrulline *endogenously* to cover your metabolic requirements, but under certain *conditions* – i.e. illness or severe stress – those requirements go up, and your body's production can't keep pace. In that case, *exogenous* supplementation may be necessary.

So if you're working hard in the gym, supplementing with conditionally essential amino acids like citrulline may be a good idea.

One interesting thing about citrulline is that it's not the *direct* precursor to NO – there's an intermediary conversion step. Citrulline gets converted into *arginine*, which then becomes NO: Citrulline → Arginine → NO

So why don't we take arginine instead? The answer is that arginine shows low oral bioavailability. Citrulline is much better absorbed.[2,3]

### Why do we want more NO?

So *why* do we want to boost NO with citrulline?

SUPPLEMENT FACTS		
Serving Size 1 Scoop (13.5g)		
Servings Per Container 30		
	Amount Per Serving	% Daily Value
Vitamin B12 (as Methylcobalamin)	5 mcg	208%
Sodium	75 mg	3%
L-Citrulline	4000 mg	**
Beta Alanine	3200 mg	**
L-Tyrosine	2000 mg	**
Taurine	1000 mg	**
Natural Caffeine (as Green Coffee Bean Extract)	200 mg	**
Himalayan Pink Salt	200mg	**

\*\*Daily Value not established

**OTHER INGREDIENTS:** Citric Acid, Malic Acid, Natural and Artificial Flavors, Silicon Dioxide, Calcium Silicate, Sucralose, Beet Root Powder (color).

Increased NO causes the smooth muscle lining the inside of your arteries to relax, which in turn causes those arteries to expand in diameter. Bigger arteries carrying the same volume of blood means better circulation, lower heart rate, and more efficient delivery of nutrients to cells.[4-6]

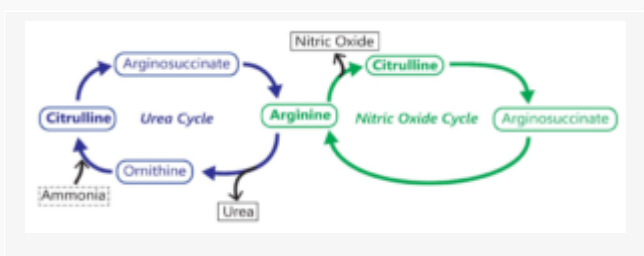
This boost in cardiovascular efficiency adds up to *increased athletic performance*. Not only are your hard-working muscle cells getting more of the glucose and oxygen they need to function at their peak, but *metabolic waste* is also being removed faster – particularly *lactic acid*, which causes muscular fatigue as it builds up.

Blood flow is also important for *recovery*, so you can expect to recover faster when your workout is finished, too.

More specifically, the research on citrulline shows that it can:

- Boost *power output* by improving oxygen utilization[7]
- Increased *athletic endurance* by about 50%[8]
- Decrease *muscle soreness* following exercise[8]
- Increase the secretion of *growth hormone* (GH) in response to exercise[9]
- Inhibit protein breakdown[10]
- Increase *muscle protein synthesis*[11,12]

## The citrulline-ornithine connection



Citrulline's participation in the nitric oxide cycle and the urea cycle. The enzyme argininosuccinate converts citrulline to arginine, and arginine stimulates the production of nitric oxide[13]

Most veteran supplement consumers have heard plenty about citrulline's effect on NO production, but what's less well known is that supplementing with citrulline can also boost your body's levels of *ornithine*,[14] an amino acid that's responsible for helping your body detoxify *ammonia*. [15]

Ammonia is, like lactic acid, a metabolic waste product that can cause mental and physical fatigue as it builds up. In other words, citrulline's ability to help remove ammonia is probably another factor in its ability to increase athletic endurance.

Ornithine has also been shown to *improve sleep* – a huge factor in recovery from exercise – and reduce feelings of stress in those who take it, effects that are reflected by the lower *cortisol-to-DHEA* ratio in people who supplement with citrulline.[15]

Although lower doses are efficacious, the most commonly studied and validated dose in the research on citrulline is *3,000 milligrams per day*. We're getting significantly *more* than that in CBum Essential Pre, which is good because citrulline's effects have been shown to be dose-dependent.[16]

Since returns on additional citrulline don't start to diminish until you hit the 10,000 mg per day mark,[17] the extra 1,000 mg is likely getting you additional value.

- **Beta Alanine – 3200 mg**

**Beta-alanine** belongs to a class of supplements called *ergogenic aids*, which are defined by their ability to *increase athletic performance*.



This is one of the most time-tested ingredients there is – it’s been in pre-workout formulas for most of supplement industry history, and we don’t see it going anywhere soon.

Beta-alanine combines with the amino acid *L-histidine* to form a *dipeptide molecule* called *carnosine*.

*Carnosine* helps your body remove lactic acid,[18] thus slowing the onset of muscular fatigue and increasing athletic endurance. So again, we have to ask the question: if *carnosine* is what we’re trying to boost, then why not just supplement with *carnosine* instead?

The answer is the same as we saw in the citrulline section: *carnosine* is not very orally bioavailable, but beta-alanine is. And since your body’s supply of beta-alanine is what determines how fast it can make *carnosine* (*histidine* is abundant in most foods),[19,20] supplementing with beta-alanine is a great strategy for boosting *carnosine* production.

### **Increased endurance through numerous studies**

According to two different large meta-analyses of the beta-alanine research, over 40 different peer-reviewed studies show that beta-alanine is most useful when taken to support exercise within a particular range of intensity: an intensity level that can be sustained for anywhere from 30 seconds to 10 minutes.[18-26]

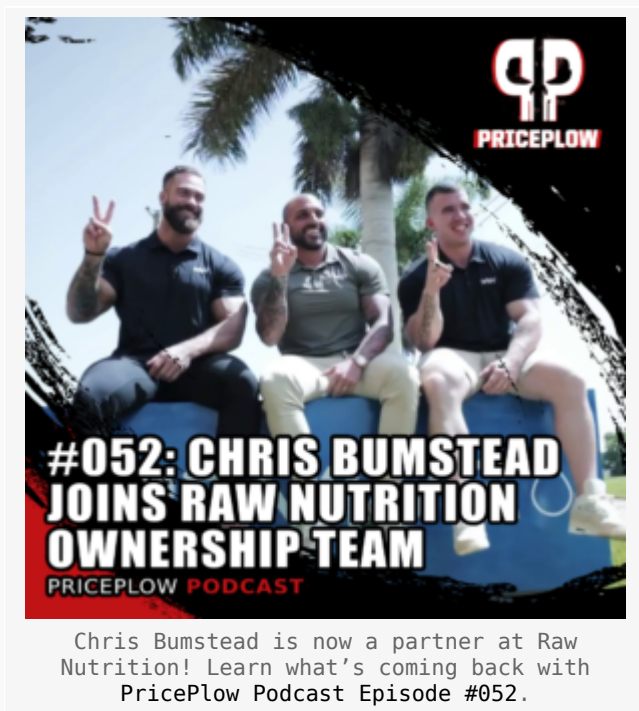
3,200 milligrams is the most commonly studied and validated dose of beta-alanine, so once again CBUM Essential is proving itself to be brilliant at the basics.

- **L-Tyrosine – 2,000 mg**

The amino acid **L-tyrosine** is a great pre-workout ingredient for three major reasons:

1. **Thyroid support**

First, and arguably most importantly, tyrosine is great for *thyroid support*. It's the precursor to the two main thyroid hormones in your body – triiodothyronine (T3) and thyroxine (T4).[27,28]



The thyroid can be hit pretty hard by the two primary behaviors of weightlifters, bodybuilders and athletes – *intense exercise*, which can definitely raise your cortisol levels if you're training close to the edge,[29,30] and *caloric restriction*, which most people in these groups use periodically to improve body composition.[31]

Importantly, the harder your workouts, the bigger your calorie deficit, and the longer your diet and training regimen go on, the harder your thyroid will get hit – and the more you may be in need of extra thyroid support from supplements like tyrosine.

2. **Neurotransmitter production**

The *other* big reason to consider tyrosine supplementation is that it can increase your body's production of key neurotransmitters like dopamine, adrenaline, and noradrenaline.[32-34] These neurotransmitters, called *catecholamines*, can improve focus and motivation, two attributes that are key for anyone attempting a tough workout.

Adrenaline and noradrenaline can also help decrease appetite and accelerate fat burning.[35]

This second reason leads us to another incredible downstream benefit:

### 3. Sleep deprivation support

Finally, tyrosine has been evaluated for its ability to improve alertness and performance in sleep-deprived persons. According to U.S. military scientists, tyrosine is actually *better* at doing this than caffeine![36,37]

### • Taurine – 1,000 mg

Next we have one of PricePlow's all-time favorite ingredients – **taurine**.

The inclusion of taurine in CBUM Essential Pre-Workout is spot on. It's yet another sign that this product was developed by a team who really knows how to select ingredients with the best per-dollar value to the consumer.

### Cellular hydration

Taurine is an *osmolyte*. This means that it *increases osmotic pressure* around your body's cells, which naturally forces a higher-than-usual amount of water into them.[38]



For a more comprehensive pre-workout, it's hard to beat CBUM Thavage

The extra water means *improved cellular hydration*, and this comes with a number of important benefits. More water means your cells have better access to important *nutrients*, many of which are water soluble. It also helps your cells *get rid of cellular waste* more efficiently, and improves their resistance to *heat stress*.

### Endurance boosting

All of these cellular hyperhydration benefits add up to an effect where cells



can work *harder* for *longer*. This generally means better *aerobic and anaerobic endurance* for your whole body. According to a 2018 meta-analysis of taurine research, a single 1,000 milligram dose of taurine – the same dose used in CBum Essential Pre-Workout – can significantly increase athletic endurance.[39]

Taurine can also help support *calcium signaling* in muscle cells,[40] and has been shown to help reduce the frequency of *muscle cramps*.[41]

## **Neurological effects**

Taurine is a powerful *antioxidant*,[42,43] that seems particularly good for protecting your all-important *mitochondria* from oxidative stress.[44]

In the central nervous system, taurine acts as a GABAergic compound, meaning it imitates the effects of the inhibitory neurotransmitter *gamma aminobutyric acid* (GABA). GABA and the GABAergic compounds are called inhibitory because they reduce the rate of neuronal firing, which has a *calming* effect on both neurons and the mood of the person they belong to.[45] GABAergic compounds also *reduce inflammation in the brain*,[45] a huge potential benefit.

Taurine has also been shown to stimulate *mitochondrial biogenesis* in brain tissue.[45]

So taurine is definitely *neuroprotective in general*, but it's also *dopaminergic*,[46] helping improve the function and survivability of dopamine-producing neurons.[47]

## **Fat burning**

Taurine may help with body composition, too. It's been shown to increase your body's conversion of *white adipose tissue* (WAT) to *brown adipose tissue* (BAT),[48] the two different kinds of stored fat. It does so by *selectively inhibiting* the growth of new WAT cells, while allowing BAT cells to proliferate.[49]



The partnership between RAW Nutrition and Chris Bumstead has led to an awesome line of supplements.

The difference between WAT and BAT is *extra mitochondria* – WAT is pretty much devoid of mitochondria, and doesn't burn any energy at all, as it's your body's *long-term storage site* for emergency energy reserves.

BAT, on the other hand, is *metabolically active*. It's *jam packed with mitochondria* that are constantly burning glucose and fatty acids for *heat* in a process called non-shivering thermogenesis (NST), which is one of your body's primary mechanisms for maintaining its core temperature in the face of cold exposure.

The more BAT you have, the more calories you'll burn in a day,[50] so ingredients like taurine can help you *achieve and maintain* a relatively low body fat percentage.

Another awesome thing about BAT is that because it's constantly consuming glucose and fatty acids, having more BAT can also improve blood glucose and lipid levels, helping discourage hyperglycemia, hyperlipidemia, and insulin resistance.[51]

### **Taurine: an all-around superstar**

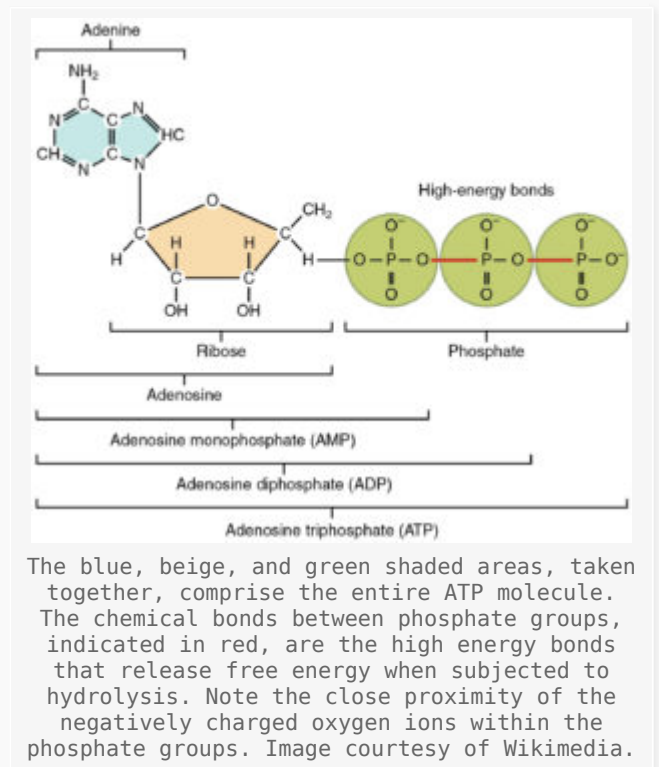
By now you can probably see why we love taurine so much: it can *significantly* improve both mental *and* physical performance. Its GABAergic and mitochondrial antioxidant effects can get you *feeling* great too, and are a great complement for the stimulant energy of *caffeine*, which is why you see taurine used in several popular energy drinks.

The caffeine + taurine combination is awesome, and as you have probably noticed, there's a decent amount of caffeine in here too.

Taurine is *conditionally essential*, so again, if you're training or dieting hard, you may wish to consider supplementing with this awesome amino acid.[39,45,52]

- **Natural Caffeine (as Green Coffee Bean Extract) – 200 mg**

**Caffeine** is a ubiquitous *legal* stimulant drug, famed and sought after for its ability to *fight fatigue*. But as we'll see, the ingredient's usefulness goes way beyond helping you awaken – it has significant benefits for *athletic performance* and *metabolism* as well.



Caffeine's main anti-fatigue mechanism is *adenosine inhibition*. Adenosine is a *nucleotide* that's produced as a byproduct of *adenosine triphosphate* (ATP) metabolism, and builds up in your brain during the day as your neurons burn ATP for energy.[53]

Adenosine's activation of the *adenosine receptor* is one of the signals that tells your body it's time for rest[54] – when there's lots of adenosine activity in your brain, you naturally feel tired. Caffeine *decreases* activation of adenosine receptors, which blunts the onset of fatigue.[55,56]

So by *reducing feelings of fatigue*, caffeine can give us "energy" in a figurative sense. But it also can *literally* increase your body's production of energy, by stimulating cellular metabolism.

This is because caffeine *also* inhibits *phosphodiesterase*, the enzyme that

breaks down a *messenger molecule* called *cyclic adenosine monophosphate* (cAMP).[55,56] cAMP tells your cells to burn more calories for energy[57] by activating AMP-activated protein kinase (AMPK),[58] which is a signal for your mitochondria to increase ATP production.

By stimulating the cAMP/AMPK pathway, caffeine can *increase the number of calories your body consumes in a day*. [57] This comes with the obvious *potential* benefit of helping accelerate weight loss and maintain a lean body composition.

Caffeine is particularly useful for burning more *fat*. Research shows that caffeine can increase fat burning by as much as 50%. [59]

### **Performance benefits**

Thanks to its impact on cellular metabolism, caffeine is a potent *ergogenic aid*. It has been consistently shown to improve strength, power output, and endurance. [60]



On the *cognitive* side of things, caffeine can speed up reactions,[61] sharpen focus,[61,62] and increase *alertness*. [62] It can also increase *working memory*, a key factor in learning and fluid intelligence. [63]

### **Caffeine dose used**

The dosing of caffeine in CBUM Essential is yet another example of the total no-nonsense approach to formulating this supplement. 200 milligrams is a moderate dose, well within the tolerance of almost all habitual caffeine users and *very* well studied for its mental and physical performance benefits.

A lot of companies are experimenting with higher or lower doses of caffeine,

sometimes as a marketing gimmick – but here, again CBum is sticking to the tried-and-true, *essential* dose.

Assess your tolerance, but most pre-workout users are fine with 200 milligrams here. If you're not, use less than a full scoop and you'll still get a good amount of citrulline.

Note that this is a natural caffeine source, extracted from *green coffee beans*.

- **Himalayan Pink Salt – 200 mg**

**Sodium** in the form of **Himalayan pink salt** is another great addition to a pre-workout formula.

The reason is simple: during exercise, you sweat, and lose lots of *sodium* and other electrolytes in your sweat. The cool thing about pink salt is that it contains trace amounts of *all* the electrolytes, and some other minerals. It's mostly sodium, though.



Himalayan pink salt is an excellent source of electrolytes. Don't fear the sodium!! We *need* it for optimal training!

Sodium has fallen into disrepute in recent decades, thanks to the official recommendation against *high-sodium diets*. But we need sodium for efficient muscle contractions,[64] and if we lose too much sodium during exercise, it can impair our performance and recovery.[65]

A 200 milligram dose of Himalayan pink salt works out to about a 75 milligram dose of sodium. Big enough to make a welcome difference in terms of *electrolyte replenishment* and hydration, but small enough that you *probably* don't have to worry about its impact on your overall sodium intake (be sure to monitor this, though).

If you want to read more about this, check out our favorite reference on the

subject, *“The Importance of Salt in the Athlete’s Diet.”*[65]

## Flavors Available

Check out our up-to-date list of available CBum Essential flavors:

## Conclusion: Just the Essentials from Raw Nutrition

If you follow the *PricePlow Podcast* (definitely be sure to listen to *Episode #052 with Chris and the Raw Nutrition team*), you’ll know that Mike’s been talking for quite some time about the economic realities many gym-goers face, and that there’d be a “revolt” against \$70 pre-workout supplements. It’s 2023, and those predictions are coming true.



CBum’s Essential Pre is the beginning of what we believe will be a new trend towards more affordable pre-workout supplements for the masses. Watch how many companies copy this and have a “lite” version of their pre-workouts by the end of 2023.

Raw Nutrition sets out to give consumers maximum bang for their buck, and in our view, it accomplishes this goal in spades. Although it’s “nothing special” in terms of ingredient selection, this is one of the most disciplined and economical formulas you’ll find on the supplement market today.

A fantastic option for supplement beginners and serious budget-minded consumers alike.

**RAW Nutrition CBUM Essential Pre-Workout – Deals and Price**

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