

CBum Thavage RTD Pre-Workout: Is This Even Possible?

written by Mike Roberto | June 20, 2022

Trust us on this one – you have *not* seen an RTD (ready-to-drink) pre-workout supplement like *this* one.

When Chris Bumstead joined Raw Nutrition and launched his CBum line, one of his first actions was to release the *Thavage Pre-Workout Supplement*. It's had a couple of tweaks (all updated in the article linked above), but has inarguably remained one of the best new pre-workouts of the past year.

SUPPLEMENT FACTS	
Serving Size: 1 Bottle (12 Fl. Oz.)	
Amount Per Serving	
Calories	0
Total Carbohydrates	1g
Vitamin C (as Ascorbic Acid)	250mg
Vitamin B6 (as Pyridoxal 5' Phosphate)	50mg
Vitamin B12 (as Cyanocobalamin)	1000mcg
Sodium (as Monobasic Phos. Salt)	400mg
Potassium (as Potassium Chloride)	1500mg
L-Citrulline	4000mg
Beta Alanine	2200mg
Benzoic Acid/Bitartrate	1000mg
Guarana	1000mg
Agmatine Sulfate	1000mg
Caffeine Hydrochloride	400mg
L-Phenylethylamine	1000mg
DL-Caffeine Anhydrous (100mg Caffeine)	400mg
Minor Storage (as Citrus Acidulants)	100mg
Acidulants (100% Aspartame)	400mg
Polysorbate 80 (Polysorbate monostearate, malt, Extract) and Flavour emulsifying, and Extract	20mg
Spectrolyte A (Spectrolyte airtite, whole plant)	1000mg

CBUM THAVAGE RTD
15+ GRAMS OF ACTIVES!
PRICEFLOW ARTICLE

Take a look at *this* formula! How'd CBUM fit so many actives into a single bottle?

Loading up a powder is one thing... but what if you were to try to put most of it into a *single* bottle? Chris and his team have seemingly accomplished the impossible:

CBum's Thavage RTD Pre-Workout – As loaded as they come!

Powder pre-workouts are still king, but sometimes you need something on the go – and energy drinks aren't enough for true "Thavages" like Chris Bumstead. To solve that problem, we have **Raw Nutrition's CBum Thavage RTD Pre-Workout**, and it's a *banger* of a bottle.

Inside, we have over *15 grams of active ingredients* packed into a single 12 fluid ounce bottle. We're not sure how they did it, but it's a reality, and it's more impressive than most *powdered* pre-workouts we've seen.

It all comes with **~305 milligrams of total caffeine** (from two sources), making one bottle a perfect blend of energy, focus, pumps, and endurance/performance

enhancers.

Let's check on prices and dig in:

RAW Nutrition C-Bum Thavage Pre-Workout Drink – Deals and Price Drop Alerts

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CBum Thavage RTD Ingredients

In *two 6-ounce servings* of C-Bum Thavage RTD – a whole *12-ounce bottle* – you get the following, and it's all *very* well-dosed for fitting into a single bottle:

- **L-Citrulline – 6,000 mg**

SUPPLEMENT FACTS

Serving Size: 1 Bottle (12 fl oz.)

Servings Per Bottle: 1

	Amt. Per Serving	% Daily Value
Calories	3	
Total Carbohydrates	1g	<1%
Vitamin C (as Ascorbic Acid)	250mg	278%
Vitamin B6 (as Pyridoxial 5 Phosphate)	10mg	588%
Vitamin B12 (as Cyanocobalamin)	100mcg	4167%
Sodium (as Himalayan Pink Salt)	400mg	9%
Potassium (as Potassium Chloride)	150mg	3%
L-Citrulline	6000mg	**
Beta Alanine	3200mg	**
Betaine Anhydrous	2500mg	**
Taurine	2000mg	**
Agmatine Sulfate	1000mg	**
Caffeine Anhydrous	260mg	**
L-Theanine	150mg	**
DiCaffeine Malate (45mg Caffeine)	64mg	**
Bitter Orange (as Citrus aurantium, fruit) Extract (10% Synephrine)	60mg	**
Astragin [(Astragalus membranaceus, root, Extract) and (Panax notoginseng, root Extract)]	25mg	**
Huperzine A (Huperzine serrata, whole plant)	100mcg	**

** Daily Value (DV) not established

Other Ingredients: Purified water, Citric acid, Natural flavors, FD&C Blue #1, FD&C Red #40, Sodium hexametaphosphate, Sucralose, Sodium Benzote (preservative), Potassium Sorbate (preservative), EDTA Calcium Disodium Versenate

Each serving contains approx. 300 mg of caffeine.

Note the *total* caffeine yield is around 305 milligrams

Most modern pre-workout supplements use a sizable dose of **citrulline**, and it's easy to see why. As a precursor to *arginine*, citrulline supplementation can raise your *arginine blood levels*. [1-3] Also, *arginine* is a precursor to *nitric oxide* (NO), so taking citrulline can boost your NO production, too. [4]

You may be wondering, "Why not take arginine instead?" and you'd be asking a reasonable question. The answer is that arginine happens to be degraded in the gut by the enzyme *arginase* before it can be absorbed into the bloodstream. [5] It's known as the "first pass effect" and, fortunately for us, citrulline is immune to it. It works *around* the issue to get converted into arginine and then into nitric oxide *after* the digestive tract.

In other words, taking arginine itself *won't* appreciably raise your arginine blood levels as much as once hoped, but taking *citrulline* instead *will*.

The main benefit of increased NO production is *vasodilation*, a physiological mechanism that causes blood vessels to *expand* in diameter, allowing more blood and nutrients to flow through. This makes the delivery of *nutrients* to muscle cells more efficient. It can also increase ATP production, which may help improve exercise performance and recovery. [6-8] For athletes, this can manifest as lower perceived exertion and reduced delayed onset muscle soreness (DOMS). [9]

Since the clinically-validated dose of pure citrulline is *3 grams*—[10] only

half what's used in a single bottle of C-Bum Thavage RTD—we're pretty stoked on 6 grams.

AstraGin, another ingredient in this formula, can significantly increase *citrulline bioavailability* – scroll down to the *AstraGin* section for more information.

- **Beta-Alanine – 3,200 mg**



Beta-alanine and the amino acid *histidine* combine to form *carnosine*,[11] a *dipeptide* that is beloved by the PricePLOW writing staff because of its ability to delay *lactic acid accumulation* in muscle tissue.

This matters because as lactic acid concentrations rise during exercise, the biomechanical efficiency of your body *drops*, which ultimately *decreases* your athletic performance.[12]

Two large meta-analyses have validated beta-alanine's endurance-boosting effects, one from 2012, with a cumulative total of 360 participants,[13] and the other from 2016, with a whopping *1461 cumulative participants*. [14] The authors of the 2016 meta-analysis concluded that beta-alanine seems to boost endurance during any form of exercise that lasts between 30 seconds and 10 minutes in duration.[14]

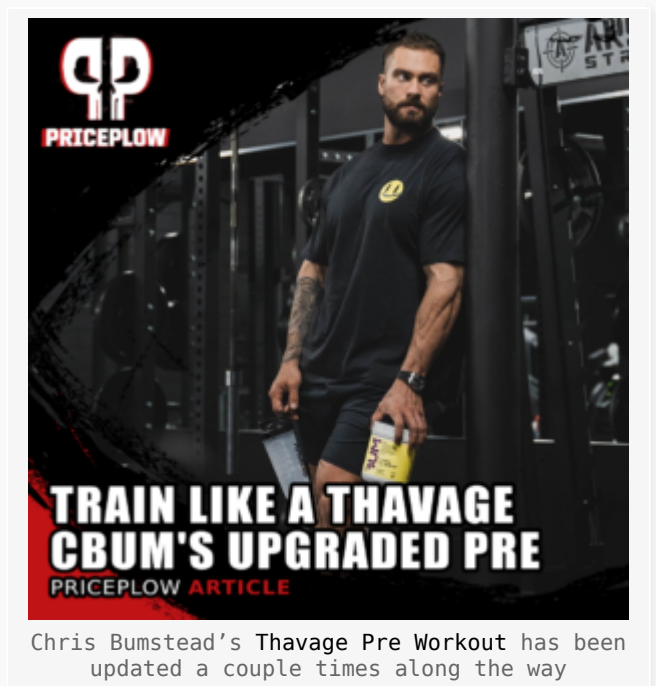
Note that beta-alanine has synergistic effects with *creatine*,[15] an incredibly popular *ergogenic aid* that most readers are probably taking already.

Beta-alanine tingles are harmless

Upon taking beta-alanine, some people experience an intense *tingling sensation* in their upper body. If this happens to you, don't be alarmed – a 2019 safety review concluded that beta-alanine “*does not adversely affect those consuming it.*”[16]

Again, we have a large clinical dose... all in one bottle! Get ready for more, though:

- **Betaine Anhydrous – 2,500 mg**



Betaine, sometimes referred to by its chemical name, *trimethylglycine* (TMG), is an *ergogenic aid*. According to the journal, *American Family Physician*, “*Ergogenic aids are substances or devices that enhance energy production, use, or recovery and provide athletes with a competitive advantage.*”[17] This category also includes mainstay supplement ingredients, *caffeine*, *creatine*, and *carnosine*.

Betaine's ergogenic effects are due to its status as an *osmolyte*, meaning that it helps regulate *osmotic pressure* in your cells. Specifically, it can *increase* your cellular water content, which improves hydration[18,19] and protects cells against *heat stress*. [20]

As a *methyl donor*, betaine can also dramatically benefit long-term *cardiovascular health* by reducing your blood levels of *homocysteine*, [21] an amino acid that's been linked to atherosclerosis. [18,22]

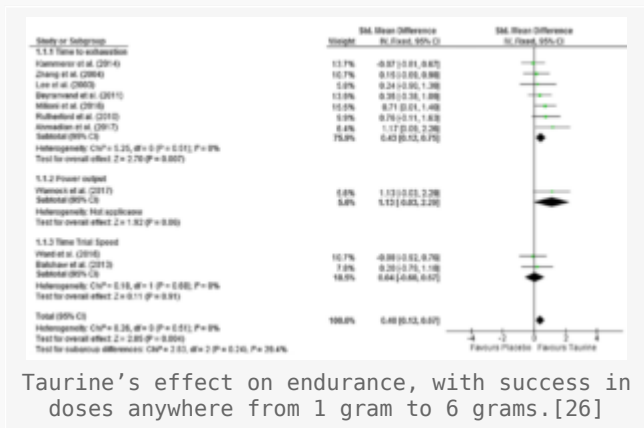
Betaine supplement trials have consistently found that it benefits power

output and endurance during exercise.[23,24]

This is *the* clinical dose we love seeing... and we'll sound like a broken record, but we don't really expect it in RTD form. Thavage.

• Taurine – 2,000 mg

Here we have another *osmolyte* in **taurine**,[25] a *conditionally essential* amino acid.



Like other osmolytes (e.g., *betaine*, which we just discussed above), taurine is often used as an *athletic endurance booster*. Unlike, say, *creatine*, taurine does not need to be “loaded” before it takes effect. A *single dose of taurine* can *immediately* improve exercise performance.[26] The clinically-validated dose for this effect is *1 gram* (or *1,000 milligrams*), the same dose used in *half* a bottle of C-Bum Thavage RTD.

Besides improving cellular hydration, taurine can also have *antioxidant effects*, protecting the body against the damaging effects of *free radicals* or *reactive oxygen species* (ROS), and even *improve cognition*. [25-27]

Taurine's *nootropic effect* can be explained by its effect on *gamma-aminobutyric acid* (GABA) receptors in the brain, and its ability to reduce *cerebral inflammation* while improving synaptic transmission and mitochondrial function.[27]

Taurine's effect on the *brain* is a big part of the reason why you see the ingredient in a lot of popular energy drinks, and we're glad to see it well-dosed in C-Bum Thavage RTD.

• Agmatine Sulfate – 1,000 mg

Agmatine sulfate is an *arginine metabolite* that inhibits the function of *arginase*, the enzyme responsible for degrading arginine.[28] In other words,

agmatine sulfate effectively *raises arginine blood levels* by prolonging the lifespan of the arginine that's already present in your blood – and as we discussed in the *citrulline* section at the beginning of this article, higher *arginine blood levels* ultimately means more *nitric oxide* (NO) and further improved *vasodilation*.

Moreover, agmatine can also slightly increase NO *production* itself by upregulating *nitric oxide synthase*. [29]

AstraGin, another ingredient in this formula, significantly increases *agmatine sulfate bioavailability*. We talk more about this patented ingredient further down in the article.

- **Caffeine Anhydrous – 260 mg (of ~305 mg total caffeine yield)**

Caffeine does a lot of things at once: it speeds-up the fat-burning process and increases overall energy while decreasing appetite. It also increases thermogenesis, the process by which your body converts energy (calories) into *heat*. [30,31]

Its primary mechanisms of action are *adenosine inhibition* and *phosphodiesterase inhibition*. [30,31]



Adenosine is a *metabolite* of *adenosine triphosphate* (ATP), the body's basic unit of cellular energy. As your brain consumes ATP during waking hours, turning it into energy required for performing cognitive functions, *adenosine* is produced as a metabolic byproduct and accumulates *in* the brain. [32,33]

Adenosine buildup signals the brain that it's time to *sleep* by downregulating neural activity[30,31] and inducing feelings of mental and physical fatigue.

Caffeine blocks the *adenosine receptors* in your neural tissue, meaning that although adenosine continues to build up in the brain, it has a *far lesser* effect on energy levels.[34]

This anti-fatigue effect is part of what we mean when we say that caffeine gives you energy.

Phosphodiesterase, the other main inhibitory target of caffeine, is an enzyme that's responsible for breaking down *cyclic adenosine monophosphate* (cAMP),[30,31] a messenger molecule that helps the body burn fat and carbohydrates for energy. Phosphodiesterase inhibition *increases* cAMP levels, raising your metabolic rate and making more energy available to your body for everything, from exercise to thinking, and just taking a leisurely walk.[35]

Because of its anti-fatigue, pro-metabolic properties, caffeine is considered an *ergogenic aid* and caffeine consumption is associated in the research literature with increased athletic performance.[36]

Note that this is 260 of 305 total milligrams of caffeine – a large dose. Some people may not have a tolerance to that amount of caffeine . If you're unsure of your caffeine tolerance, start by drinking *half* a bottle of C-Bum Thavage RTD and work your way up to the full 12-ounce serving.

- **L-Theanine – 150 mg**



Theanine is an amino acid found naturally in *tea leaves* (i.e., *Camellia*

sinensis). It functions as a *neurotransmitter* in the brain[37] where it has *calming, anxiolytic* effects, [38-40] but *without* causing *sedation*.

Because of this “best of both worlds” dynamic, theanine *exploded* in popularity among biohackers during the 2010s as a *nootropic* supplement.

Another reason for theanine’s newfound popularity is its *synergistic effect* with caffeine. Researchers consistently have found that when it comes to improving cognitive performance, the *combination* of theanine and caffeine outperforms either supplement on its own.[41]

Even though theanine is *not* a depressant, research has also consistently shown that theanine supplementation can significantly improve sleep.[42] Taking a 200-milligram dose (not quite what we have in C-Bum Thavage RTD, but close) significantly reduced *resting heart rate* in those who took it,[42] which indicates a significant blunt to the body’s *physiological* response to stress. This is probably because theanine, like *taurine*, upregulates GABA.[43]

You can think of theanine as similar to an *adaptogen* – it will reduce the effect stress has on you, but won’t compromise your ability to respond to it.

- **Di-caffeine malate – 64 mg (yields 45 of 305 mg total yield)**

Di-caffeine malate is a compound of *caffeine* and *malic acid*. It has all the same effects and benefits as *caffeine anhydrous* (discussed above),[30-36] but has a long half-life that results in a more gradual taper and less of a crash as it leaves your system.

This brings our *grand* total to 305 milligrams – the same we see in two scoops of Thavage pre-workout powder.

- **Citrus Aurantium 10% Extract (6 mg synephrine) Fruit – 60 mg**



Citrus aurantium extract is usually standardized for **synephrine**, a *beta-3 adrenergic receptor agonist*[44] that increases your body's rate of *fat burning*. [45,46] It also increases the metabolic rate in the manner of a *stimulant*, but *without* affecting blood pressure or heart rate.[44] Synephrine is similar to *caffeine* in its effects on fat metabolism.[47]

However, *Citrus aurantium* extracts may also contain *hordenine*, a *monoamine oxidase inhibitor* (MAOI)[48,49] that can prevent important neurotransmitters, like *dopamine*, from being metabolized, effectively increasing their concentration and intensifying their action. Hordenine is also a *beta-2 adrenergic receptor agonist*, [50] and increases *basal metabolic rate* in a fashion similar to *synephrine*. [51]

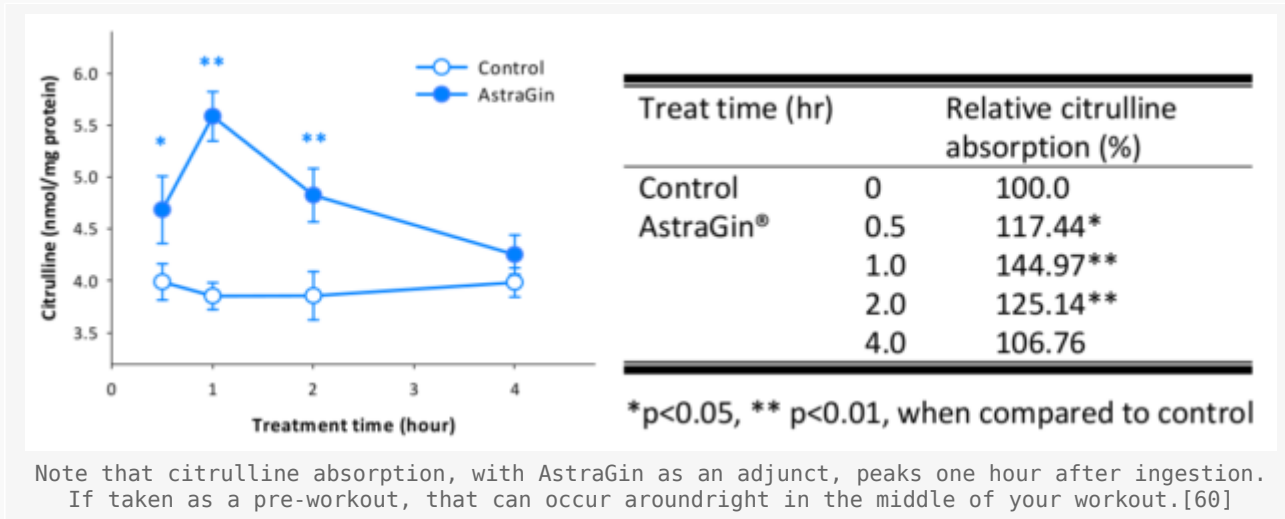
So aside from the 6 milligrams of synephrine, we're not sure if there are any other active constituents, but this plant has incredible potential.

- **AstraGin (Astragalus membranaceus & Panax notoginseng) Root – 25 mg**

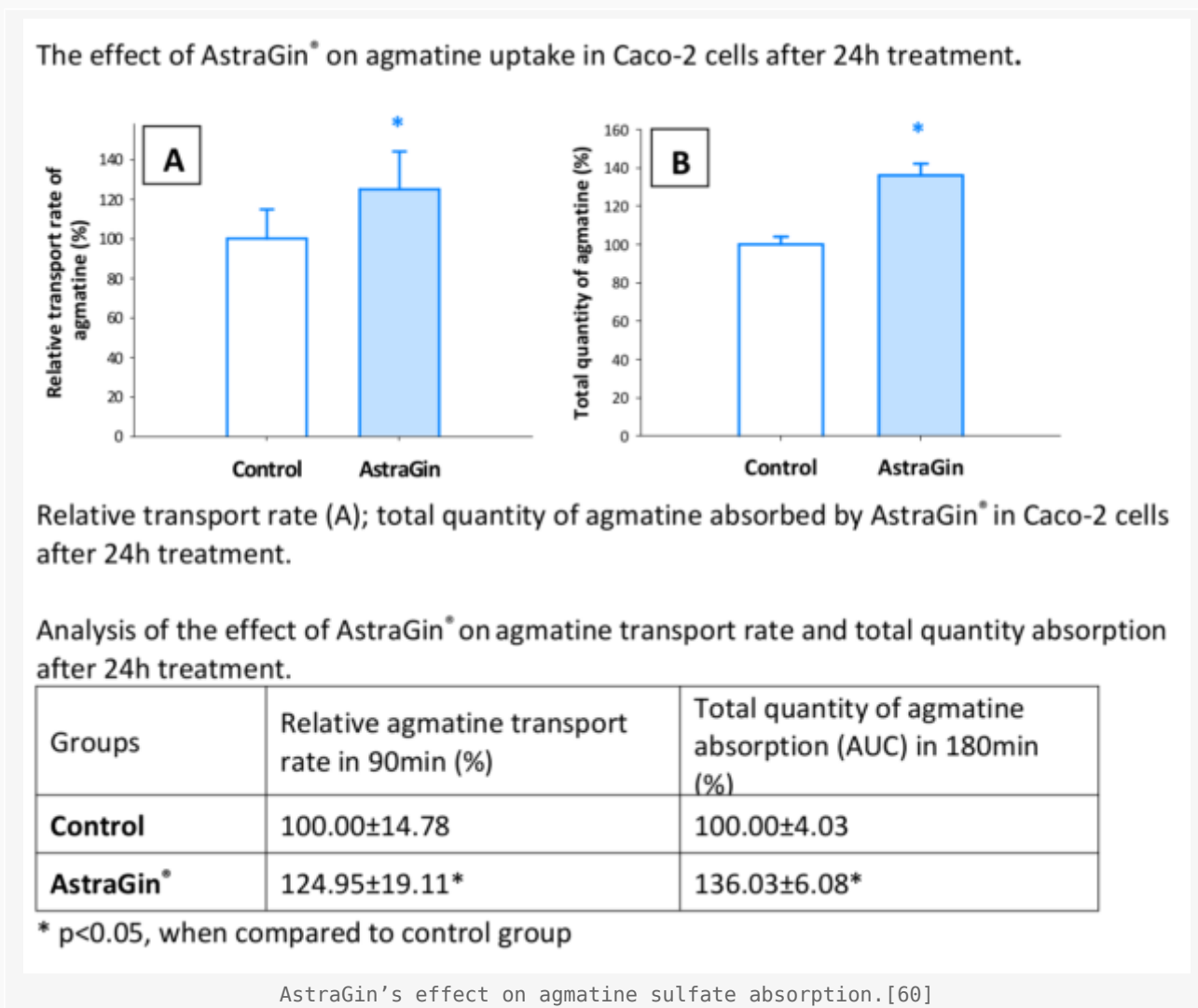
With its high concentration of *astragalosides* and *ginsenosides* that increase *adenosine triphosphate* (ATP) production, **AstraGin** can *increase* the absorption of nutrients from food and supplements by making that extra ATP available to *intestinal cells*. [52,53] Over 20 different research studies have found AstraGin can increase the bioavailability of many important compounds, including amino acids, curcumin, and vitamins. [54-59]

Check out AstraGin's *documented effect* on a couple of C-Bum Thavage RTD's key ingredients:

AstraGin and citrulline absorption



AstraGin and agmatine sulfate absorption



- **Huperzine A (Huperzia Serrata Extract) – 100 mcg**

Huperzine A inhibits *acetylcholinesterase*, the enzyme that degrades the neurotransmitter *acetylcholine*. [61] Huperzine A is most often used to significantly (and temporarily) boost *cognitive function* and *learning ability*. [62] But there's also some evidence that it can improve *exercise performance*, [63] possibly because it can significantly increase the intensity of *muscle contractions* by improving nerve function. [64]

- **Other ingredients**

C-Bum Thavage RTD also has generous servings of a few key vitamins and minerals, including:

- **Vitamin C** (as ascorbic acid) – 125 mg (139% DV): upregulates *nitric oxide (NO) synthase* [65] and increases NO bioavailability. [66] As an antioxidant, it can protect against oxidative-stress-induced decline in NO production. [67]
- **Vitamin B6** (as Pyridoxal 5 Phosphate) – 5 mg (249% DV): catalyzes energy production, regulates homocysteine blood levels, and is required for hemoglobin production. [68]
- **Vitamin B12** (as cyanocobalamin) – 50 mcg (2084% DV): regulates homocysteine blood levels, DNA synthesis, and red blood cell production. Required for myelin synthesis and maintenance. [69,70]

Flavors Available



Conclusion: A pre-workout RTD unlike anything we've seen

We've used some incredible pre-workout RTDs, especially in the past couple of years, where the technology has *greatly* improved. Some have more caffeine, some have less. But *none* that we've seen have *this* many well-dosed active ingredients inside!

Normally, RTDs treat us to undersized forms of pre-workout supplements. Good enough to get you by in a pinch, but nothing like the brand's powdered version.

Thavage RTD is *not* like the rest. This formula draws from the same base as C-Bum's Thavage pre-workout powder, but has *very* little not included. Sadly, one ingredient that we don't have here is *Nitrosigine*, but hey, you can't get it *all* in.

We've undoubtedly been enjoying the arms race in pre-workout RTD formulas – and quite frankly aren't sure how anyone's going to beat this one anytime soon.

RAW Nutrition C-Bum Thavage Pre-Workout Drink – Deals and Price Drop Alerts

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