

Tom Brady's Pre-Workout! The TB12 Pre-Workout Supplement

written by Mike Roberto | April 4, 2022

The *TB12 Pre-Workout* is **Tom Brady's Pre-Workout**, and it's a stimulant-free masterpiece loaded with a clinical dose of Nutrition21's Nitrosigine nitric oxide booster alongside massive amounts of organic vegetable-based performance enhancers.

When Tom Brady launched *The TB12 Method*, he showcased his *holistic* stance on health and fitness, covering four pillars of wellness and athleticism:



1. Nutrition
2. Hydration
3. Mental Fitness
4. Movement

It started with a diet and training routine, but over time, the *G.O.A.T.* put together the **TB12** supplement line. And when it comes to supplements, there's nothing that catches our attention faster than the *pre-workout*.

Given Tom Brady's natural and ancestral stance on dieting, we were excited to see how he'd put this together. And quite honestly, it's one of the most impressive and *on-brand* celebrity pre-workout supplements we've ever seen.

With a clinically-studied and verified dose of both *Nitrosigine* and *L-citrulline*, Tom Brady's stim-free pre is already potent. But then he goes above and beyond, adding absolutely *massive* doses of organic nitric oxide boosters like *beet root extract* and *red spinach extract* – with a beet root dose that's literally *ten times* what we generally see in the bodybuilding industry.

To top it off, we have a unique herbal libido- and natural energy-enhancing ingredient in *maca root extract*, which puts this product in its own class.

Today, we cover the Nitrosigine-powered stim-free pre-workout in all its glory. Whether or not you're a fan of Tom Brady or TB12, this is a product to try – especially if you're looking for *natural flavors* and *natural sweeteners* without caffeine or artificial colors.

First, check out the prices we've found on PricePLOW, then let's get into the science behind Nitrosigine and everything else inside:

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TB12 Pre-Workout Ingredients

In a single, *one-scoop* serving of TB12 pre-workout from TB12 sports, you get the following – with *zero caffeine*:

- **L-Citrulline – 6 g**

Supplement Facts

Serving Size: 1 Scoop (18.8 g)
Servings Per Container: 20

Calories: 40	Amount Per Serving		% DV*
Total Fat	0 g		0%
Saturated Fat	0 g		0%
Trans Fat	0 g		†
Cholesterol	0 mg		0%
Total Carbohydrates	9 g		3%
Total Sugars	3 g		†
Includes 0 g Added Sugars			0%
Protein	0 g		
Vitamin C	8 mg		9%
Sodium	15 mg		1%
Iron	< 1 mg		3%
L-Citrulline Base	6 g		†
SaBeet® Beet (<i>Beta vulgaris</i>) [Root] Extract	5 g		†
Organic Maca (<i>Lepidium meyenii</i>) [Root] Powder	3 g		†
Inositol-Stabilized Arginine Silicate (as Nitrosigine™)	1.5 g		†
Oxystorm® Red Spinach (<i>Amaranthus tricolor</i>) [Leaf] Extract	1 g		†

* Percent Daily Values (%DV) are based on a 2,000 calorie diet.
† Daily Value not established.

Other Ingredients: Citric Acid, Natural Flavors, Silica, Stevia Leaf Extract, Monk Fruit Extract.

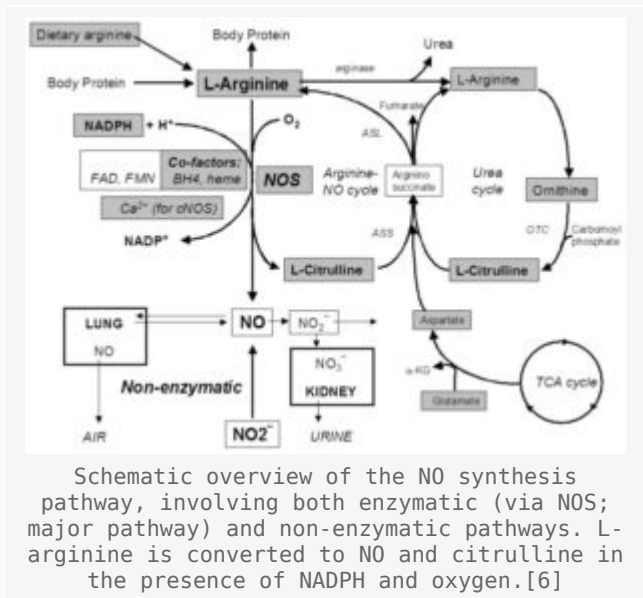
Distributed By: TB12, Inc. 240 Patriot Place, Foxboro, MA 02035

We've covered *hundreds* of pre-workout supplements on this site, and have never seen anything quite like this one.

Citrulline is an amino acid that has a powerful ability to boost *nitric oxide (NO) production*.^[1] Although *arginine* used to be the supplement industry's go-to NO precursor, citrulline has replaced it in recent years because it's significantly more bioavailable.^[2] Unlike arginine, citrulline is largely spared from the "first pass effect," where ingested substances get broken down in the gut before reaching the intestinal wall, and thus are not absorbed nor effectively utilized.^[3]

Thanks to its incredible nitric oxide production capability, citrulline has the following benefits:

- Increased oxygen uptake and higher top-end muscular power^[4]
- Increased athletic endurance. (In one 2010 study, a high dose of citrulline supplementation successfully increased subjects' maximum number of *bench press* repetitions by over 50%.^[5])
- Significantly reduced post-workout muscle soreness – up to 40% less, according to one study^[5]



All of these effects can be credited to NO's role in causing *vasodilation*, the expansion of blood vessels to increase blood flow. The reason this benefits the training athlete so much is that more blood flow ultimately means a higher efficiency of nutrient and oxygen delivery, as well as an increased rate of *lactic acid clearance*. This is important since the buildup of lactic acid is what produces muscular fatigue during exercise and soreness afterwards.

Citrulline is often bound to another substance, e.g. malate, so only a certain percentage of the dose is actually citrulline. **Not here though.** In TB12, we have *pure* citrulline – every single milligram of this citrulline form is actual citrulline.

So you're getting *6 grams of actual citrulline*– a truly monster dose, and it's only the *first* of several nitric oxide boosters. Citrulline also has an excellent safety profile. In this case, a large dose is a great thing if you're looking to boost blood flow and reap the benefits from it. Just realize that TB12 is strong enough to get some individuals *too* pumped up for some sports, and you could probably use half a serving and still get a legit pump!

- **SaBeet Beet (Beta vulgaris) [Root] Extract – 5 g**

Beets are an excellent source of *nitrates* and *betaine*, two compounds with big benefits for athletic performance and muscle growth. Sabeet Beet Extract is claimed to have at least 2% *nitrate* content,[7] which means we have at least 100 milligrams of organic nitrate content – a *far* greater amount than what we normally see with smaller beet root doses. Both sides are explained below:

- **Nitrates**

PLIABILITY AND NUTRITION



What you put in your body determines what you get out of it. Providing your body with nutrient-dense and sustainably-sourced nourishment helps reduce **inflammation and improve recovery.**

Let's start with *nitrate*. After it's ingested, nitrate is converted into *nitrite* and enters the bloodstream through the intestines. From there, it goes to our *salivary glands*, which converts it into nitric oxide[8-10] – a *different* pathway from citrulline (above) and Nitrosigine (below).

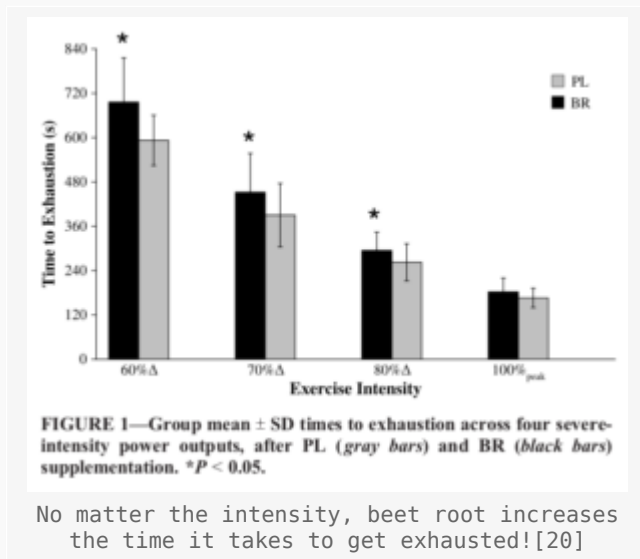
According to a 2013 meta-analysis,[11] nitrate supplementation reliably:

- Improves circulation[12]
- Produces higher *aerobic efficiency*[12-15]
- Increases strength[16,17]
- Improves athletic endurance[14,15]
- Improves recovery
- Provides cellular energy[17-19]

So you can see that the effects of nitrate supplementation are similar to those of *citrulline*, which isn't surprising since they both increase the production of NO.

The issue is that many of the studies above used more than 100 milligrams of nitrate, so it's tough to verifiably argue for *all* of the benefits above. However, we still have *another* organic nitrate-based ingredient coming! And at a five gram dose of beet extract, we're confident that we'll get at least *some* of the studied benefits above – this is literally over a 10x dose of beet root that we see in other pre-workout supplements.

- **Betaine**



Also known as *trimethylglycine* or *TMG*, **betaine** is an *ergogenic aid* with effects similar to those of creatine. First, we have to note that we don't know how much betaine is in this beet root extract – in general researchers have found just 114–297 milligrams per 100 grams of beets,[21] which means we could have a small dose here.

Betaine is a *methyl donor* that can lower blood levels of *homocysteine*,[22] an amino acid with blood levels that are positively correlated with cardiovascular disease.[23,24]

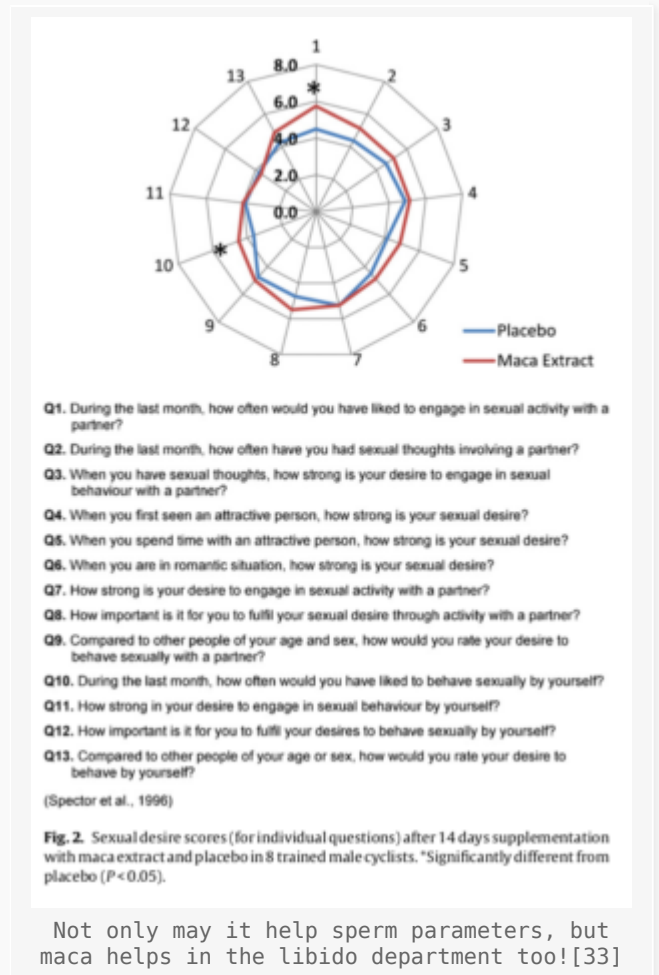
Betaine is also an *osmolyte*, meaning that it increases the *water retention* of your body's cells, thus keeping them optimally hydrated[23,25] and protecting them against *heat stress*. [26]

Tons of research has established the benefits of betaine for athletic performance,[27-32] but again, realize that those studies use *pure* betaine anhydrous and we likely don't have the doses used in those experiments.

Still, this is a monstrous beet root dose, especially given that it's just one of the ingredients. Normally, in the sports nutrition world, we see 500 milligrams. Tom Brady went 10x that!

- **Organic Maca (*Lepidium meyenii*) [Root] Powder – 3 g**

Maca is *great* for boosting a few different dimensions of what we could vaguely describe as “energy” – libido, fertility, mood, and *mental performance*.



The problem with maca is typically that large doses are needed in order to achieve clinically significant effects. That's why it's great to use maca in *powdered* supplements like this one where it's easier to achieve large doses of constituent ingredients. 3 grams is a pretty big dose of maca, so we definitely expect this constituent of TB12 to produce significant effects.

According to the research literature, the following benefits have been associated with maca supplementation:

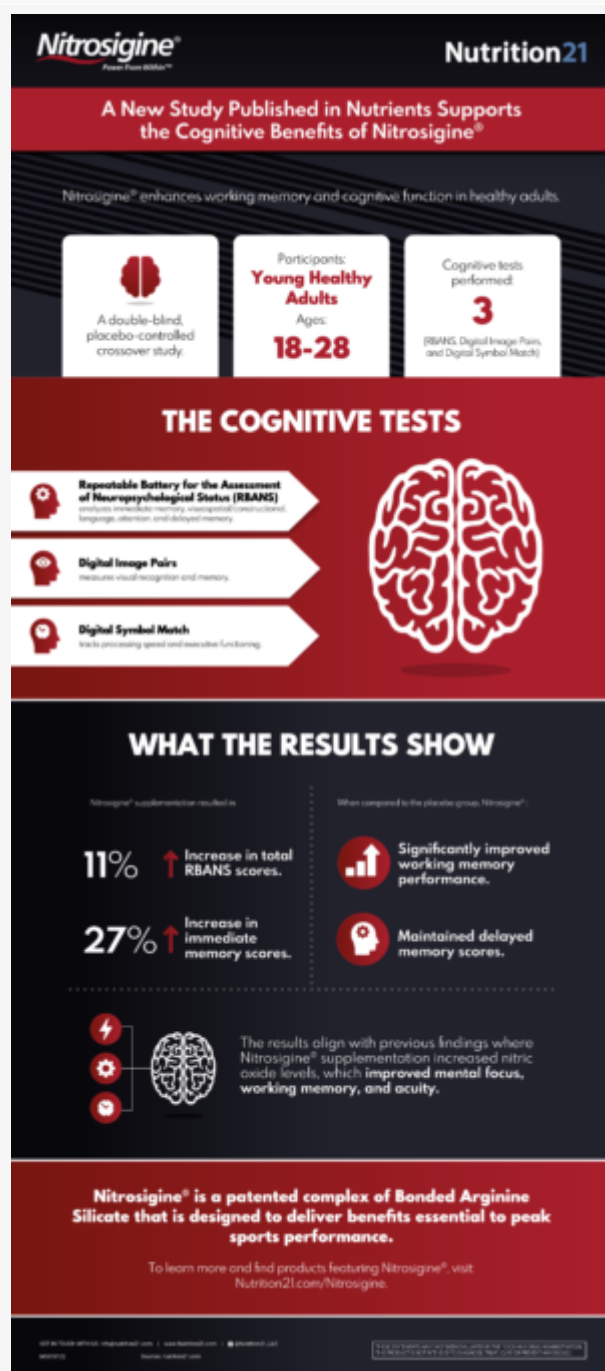
- Higher libido in men[33,34] and women.[35]
- Higher male sperm count and fertility[36,37]
- Improved mood and lower anxiety levels in women[38]
- For women, relief of some symptoms associated with menopause[36]
- Possible cognitive benefits in human[39] and animal models[40]

The inclusion of 5 grams of beet was impressive, and so is the maca powder. Despite being a stimulant-free pre-workout supplement, this much maca may be *felt* by some individuals, and we're highly interested in trying it.

Next up, however, comes the clinically-dosed nitric oxide powerhouse:

• Inositol-Stabilized Arginine Silicate (as Nitrosigine) – 1.5 g

Nitrosigine is a combination of arginine, inositol, and potassium silicate (abbreviated in research as ASI).[41] Compared to ordinary arginine, nitrosigine has *much* better bioavailability and these ingredients *combined* outperform the equivalent individual dose of each.[42]



A nitric oxide booster that improves cognition?! Yes – Nutrition21 passed around this helpful infographic after the Nitrosigine cognition study on healthy young adults was published.[43]

The idea behind this is, as with most of the other ingredients in TB12, to

boost (NO) production. *Arginine* has long been known as an NO precursor. But as we discussed above in the section on citrulline, the bioavailability of oral arginine is not very good. Thus, **Nitrosigine** was invented to overcome this obstacle.

Because the arginine silicate is “buffered” by the additional molecules, it’s protected from being broken down in the gut before it can be absorbed through the intestinal wall. Most likely, this is because the complex of the three ingredients inhibits *arginase*, the enzyme responsible for hydrolyzing arginine in the gut.[44]

Nitrosigine is both *fast-acting* and *long-lasting*. According to the latest research on Nitrosigine, it is biologically active as soon as 30 minutes after being ingested, and its effects persist for 1.5 to 6 hours.[45,46]

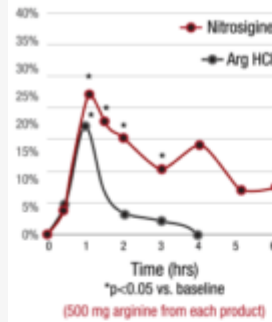
Better blood flow... better *cognitive* scores!

As is the case with most NO boosters, ASI has more than merely physical benefits. Laboratory testing has demonstrated that ASI is capable of improving cognition in *multiple domains*, and prevents the temporary cognitive decline that typically follows an intense workout.[47]

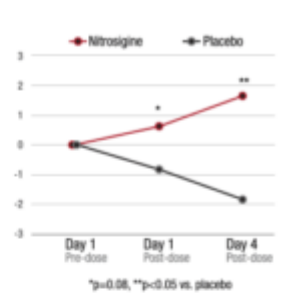
In young male subjects who did not show signs or evidence of post-exercise fatigue, Nitrosigine *still* sped up their rate of “task switching,” a metric of cognitive flexibility.[48] Another recent study showed an improved short-term memory score compared to placebo when tested in *healthy young adults* – TB12’s demographic![43]

A good overall summary of Nitrosigine’s effects are published in a 2015 study in which subjects who took 1,500 milligrams of Nitrosigine daily (N.B. – the exact same dose used in TB12) had significantly increased perceived levels of energy after a mere *72 hours* of supplementation.[45]

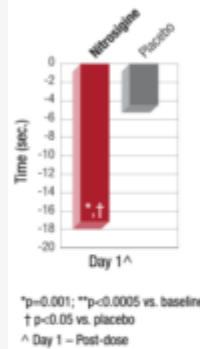
Increases Blood Arginine Levels
Comparative PK Study¹



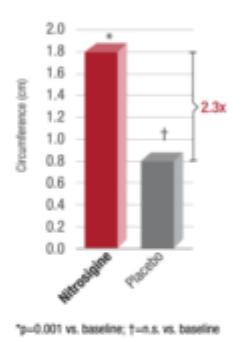
Increases Energy Levels
Change in Energy Level²



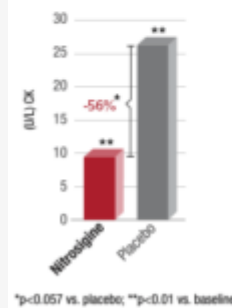
Improves Focus and Mental Acuity
Change in Time to Complete Trail Making Test B
(15 minutes after Supplementation)⁴



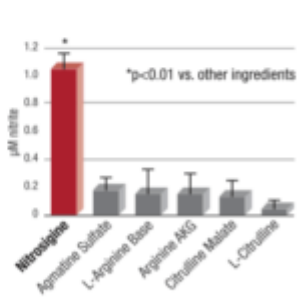
Boosts Muscle Pump
Increase in Upper Leg Pump
After Workout¹- Day 4



Combats Muscle Damage
Change in Creatine Kinase Levels After
Exercise with Supplementation³



Increases Nitric Oxide Production
Nitrosigine vs. Other Ingredients:
In Vitro Study³



§ References: 1. Komorowski J, Perez Ojalvo S. A pharmacokinetic evaluation of the duration of effect of inositol-stabilized arginine silicate and arginine hydrochloride in healthy adult males. *The FASEB Journal*. 2016;30(1):690-17. 2. Rood-Ojalvo S, Gander D, Komorowski J. The benefits of inositol-stabilized arginine silicate as a workout ingredient. *J Int Soc Sports Nutr*. 2015;12(Suppl 1):P14. 3. Kaiman D, Perez Ojalvo S, Komorowski J. Comparison of cellular nitric oxide production from various sports nutrition ingredients. *J Int Soc Sports Nutr*. 2016;13(Suppl 1):P33. 4. Kaiman D, Harvey PD, Perez Ojalvo S, Komorowski J. Randomized prospective double-blind studies to evaluate the cognitive effects of inositol-stabilized arginine silicate in healthy physically active adults. *Nutrients*. 2016;8(11):736.

† Results compared to baseline. *These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Nitrosigine is research-backed and “gym backed” – Image courtesy Nutrition21

We really like seeing ingredients that boost feelings of perceived energy, because *feeling energetic* is so crucial for the optimal motivation needed to accomplish *any* task, be it mental or physical. This makes sense if you think about it: everything we do is mediated by the state of our body, including *blood flow*

For a longer, in-depth discussion of why Nitrosigine is so awesome, check out a longer, more in-depth article we did on the topic, "*Nitrosigine: The Nitric Oxide Booster That Enhances Brain Function*".

- **Oxystorm Red Spinach (*Amaranthus tricolor*) [Leaf] Extract – 1 g**

More botanical nitric oxide boosters!

Oxystorm red spinach extract is another source of *nitrates*, which we discussed above. It's standardized for *9% nitrates by weight*[49] – a pretty high concentration – so although the dose of Oxystorm used in TB12 isn't huge, you *are* getting quite a lot of nitrates from what sounds like a small dose.

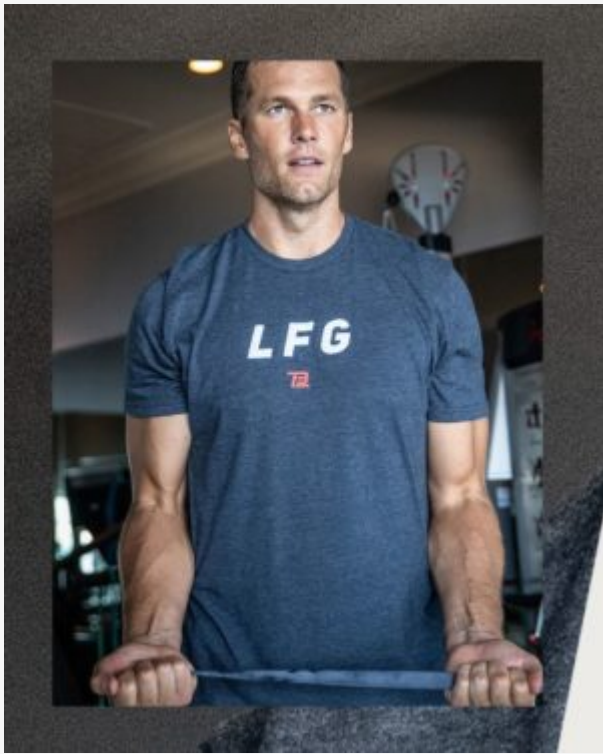
If you want a refresher on what nitrates are and why they're so *awesome*, just scroll up to the beet extract section of this article.

To give you some context for understanding how high the nitrate concentration is in Oxystorm, beets contain about *~250 milligrams of nitrate per 100 grams* of whole beet root,[50] whereas here we're getting about *9,000 milligrams of nitrate per 100 grams* of Oxystorm.

Flavors available

At the time of publishing, Tom Brady and team have just one flavor: **blueberry pomegranate**. This is from natural flavors, and it is *naturally sweetened* with stevia leaf and monk fruit extract.

If more flavors are added, they may be shown below:



The G.O.A.T. Image courtesy @tb12sports

While it'd be great to have some benefits from blueberries and pomegranate (the former being a focus aid / antioxidant and the latter being ergogenic), they're not active ingredients and likely not dosed enough to get benefits aside from their flavoring. However, we get excited anytime the flavor/color systems potentially provide any additional benefits.

Conclusion: Tom Brady's Stim-Free Pre is *impressive*

Nitric oxide has *enormous* benefits for athletic performance. So the best pre-workout supplements will hit the nitric oxide system *hard*, and that's *exactly* what the TB12 pre-workout formula does. No nonsense: except for maca, every single ingredient in this stack is there to maximize nitric oxide production, and the maca is likely to be *experiential*. Moreover, the ingredients *complement* each other for *synergistic* effects.

This may be a tough one to flavor, so look for our video above, but the fact is, this is an *extraordinarily impressive* stimulant-free pre-workout supplement that has clinical doses of powerhouse ingredients like Nitrosigine and citrulline alongside *far* greater beet and red spinach doses than we normally see in the bodybuilding world.

If the taste is palatable enough, we have to tip our hats to Tom Brady for formulating a monster. This is a celebrity stim-free pre done properly.

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01

We recommend TB12 Pre-Workout before any exercise where you might need a little boost (a long run, leg day, hiit and hills) — it uses all natural ingredients that support energy and endurance without the jitters.

02

We recommend mixing one scoop into 8 oz. of cold water 30-40 minutes before exercise for best results.

Supplement Facts

Serving Size: 1 Scoop (18.8 g)
Servings Per Container: 30

Calories: 40	Amount Per Serving	% DV*
Total Fat	0 g	0%
Saturated Fat	0 g	0%
Trans Fat	0 g	1
Cholesterol	0 mg	0%
Total Carbohydrates	9 g	3%
Total Sugars	3 g	1
Includes 0g Added Sugars		0%
Protein	0 g	
Vitamin C	8 mg	9%
Sodium	13 mg	1%
Iron	+ 1 mg	3%
L-Carnitine Base	6 g	1
Sellest [®] Beet (Beta vulgaris) (Food) Extract	5 g	1
Organic Malt (Einkorn/meyeri) (Food) Powder	3 g	1
Hydrated Stabilized Arginine Silicate (as Nitrosigine [®])	1.5 g	1
Optimum Nutrition [®] L-Asparagine (L-Asparagine) (Leaf) Extract	1g	1

*Percent Daily Values (DV) are based on a 2,000 calorie diet.
Daily Value not established.

Other Ingredients: Citric Acid, Natural Flavors, Silica, Stevia Leaf Extract, Monk Fruit Extract

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*These statements have not been evaluated by the Food & Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

HOW TO TAKE:

Mix one scoop (18.8 g) into 8 oz. of cold water 30-40 minutes before exercise.

OxyStrom[®] is a registered trademark of Aquina Natural LLC.

Sellest[®] is a registered trademark of Salmore Corporation LLC.

Nitrosigine[®] is a registered trademark of Natures B LLC.

This product is manufactured in a facility which may also process milk, soy, wheat, egg, peanuts, tree nuts, fish, and shellfish.

Consult your physician if pregnant or nursing.
Keep out of reach of children.

Store in a cool, dry place.





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