

Axe & Sledge Dozer: Better Sleep for the Hardest Workers in the Gym

written by Mike Roberto | May 18, 2020



Last time **Axe & Sledge** made an appearance on the blog, we were highlighting some of their top selling pre workouts, including *Seventh Gear* and *Hydraulic*. One is an advanced high-stim powerhouse that delivers long *lasting energy, laser focus, and increased muscular power and endurance*.

The other is one of PricePLOW's favorite non-stim pump products because it not only delivers intense pumps, but also *boosts focus, mind-to-muscle connection, and overall performance*. And if you're looking for an epic pre workout stack, look no further than Hydraulic and Seventh Gear to deliver.

It's safe to say that Axe & Sledge has the pre workout category nailed down, among several others such as protein, meal replacements, fat burners, and amino acids. Despite having such a comprehensive line of products, Axe & Sledge is always hungry for more and they're ready to take on a new category!

Enter sleep-aids...

Dozer: A Sleep-Aid That Optimizes Performance and Recovery

Hitting the gym day in a day out, on top of going to work, and dealing with everything else that comes your way, life can get pretty hectic. Most people are willing to give up sleep before anything else – *bad idea!* Sleep is extraordinarily underrated when it comes to health, longevity, and exercise performance. Sure, you can lean on a pre workout like Seventh Gear to get you going, but that only lasts for so long, and sleep is *irreplaceable!*



Axe & Sledge understands the importance of a good night's rest, but they also know that a large group of people have difficulty falling asleep or *staying* asleep. After being dissatisfied with other sleep-aids on the market, Seth Feroce and the Axe & Sledge team decided to take it upon themselves to create a product that they can stand behind and actually deliver results. That's how the idea of **Dozer** was born...

Dozer was specifically formulated to help you sleep, recover, and repair, to get you ready for another busy day ahead. Not to mention, this is a globally compliant formula, so anyone can experience what it's like to be well-rested!

Get ready to see all that Dozer has to offer down below! But before we go any further, make sure to sign up for Axe & Sledge news and deal alerts, because they're one of the hardest working supplement brands in the industry, so expect more products on the way!

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Dozer Ingredient Analysis

Dozer is a comprehensive sleep-aid that contains a solid mix of generously-dosed compounds to help you fall asleep faster and stay asleep longer. This contains a blend of both herbs *and* single-ingredient compounds. Oftentimes, sleep aids use just one or the other, but Dozer brings a best of both worlds, using both modern and “old world” science!

Here’s what one serving (5.8g) of Dozer delivers:

- **Gamma Aminobutyric Acid (GABA) – 3000mg**



	Amount Per Serving	%DV
Gamma Aminobutyric Acid (GABA)	3000mg	**
L-Tyrosine	750mg	**
Chamomile Extract (Matricaria chamomilla)	500mg	**
Ashwagandha Extract (1.5% Withania somnifera)(root)	200mg	**
Passion Flower Extract (Passiflora incarnata)(herb)	200mg	**
L-Phenylalanine	150mg	**
L-Theanine	100mg	**
Mucuna Pruriens Extract (L-Dopa)(seeds)	75mg	**
5-Hydroxytryptophan (5-HTP)	50mg	**
L-Tryptophan	50mg	**

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

Other Ingredients: Natural Flavors, Silicon Dioxide, Citric Acid, Sucralose

Axe & Sledge Dozer is packed to the brim to help you restore, recover, and sleep well!

First up on Dozer’s ingredient list is **Gamma Aminobutyric Acid**, or *GABA* for short, and *3000mg* is a massive dose!

GABA is a *neurotransmitter* most well-known for its ability to induce sleep faster by causing a depressive effect on the nervous system. GABA is already naturally occurring in the brain and it’s involved in several aspects of the sleep cycle.[1,2]

When it comes to supplementation, research shows that **GABA is able to promote relaxation, decrease beta waves** (your waking consciousness and reasoning waves), and **increase alpha waves**, which are responsible for deep relaxation.[3] Furthermore, GABA has been shown to reduce pain, alleviate mental stress, and may improve brain function, including memory and learning

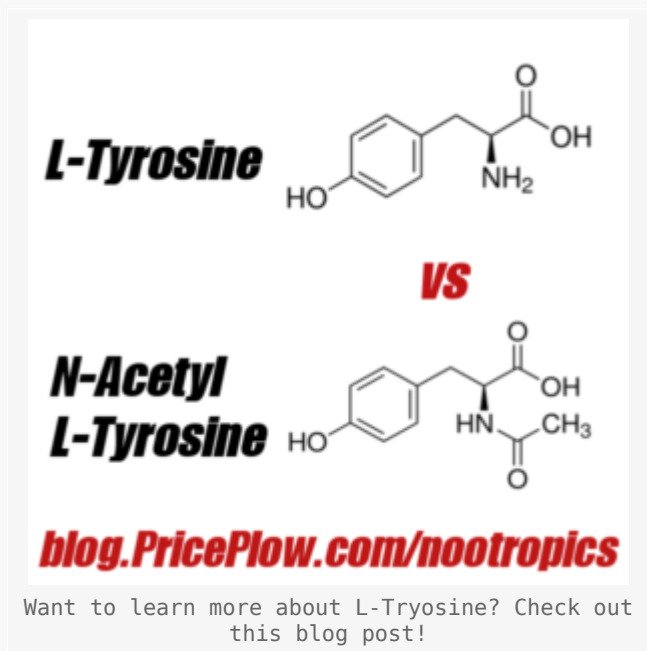
capability.[3-5]

Although GABA is quite powerful on its own, one study found that when GABA was taken alongside *5-HTP*, it resulted in **decreased time to fall asleep, increased duration, enhanced quality of sleep**, and reduced sleep latency.[3] This suggests that there may be a synergistic effect between the two ingredients, and fortunately, Dozer has both!

We often see GABA underdosed in various pill-based supplements. That is *not* the case here – if you haven't tried a solid 3g before, then it's time to step up to the plate with Dozer!

- **L-Tyrosine – 750mg**

Next up, we have **L-Tyrosine**, PricePlow's preferred form of tyrosine supplementation!



Although L-Tyrosine is a very popular addition to pre workouts, it's not a stimulant and you can supplement with it any time of day. Typically, L-Tyrosine is included in various nootropics and pre workouts because of its potent ability to boost mental performance, focus, and attention during stressful situations.[6,7] Tyrosine can either be obtained through supplementation, or synthesized endogenously by using an essential amino acid *phenylalanine*.

Tyrosine expresses its effects by serving as a precursor to several key neurotransmitters, including *dopamine*, *norepinephrine*, and *epinephrine*. Increasing the amount of neurotransmitters results in improved mood, better cell-to-cell communication, and overall brain function.[6,7]

Since exercise and various other stressors can cause a depletion of neurotransmitters, it makes sense to supplement with L-Tyrosine at night to further replenish your stores, and get you prepared for the following day. Dozer is not just about helping you sleep, but also improving your recovery and restoring anything that got depleted from a long day at work.

- **Chamomile Extract (*Matricaria chamomilla*) – 500mg**

Chamomile extract, also known as *matricaria chamomilla*, is a herb that's been used for centuries to treat various medical ailments including insomnia, inflammation, muscle spasms, gastrointestinal distress, menstrual pain, and fevers.[8] Chamomile is very popular in "sleepytime" aromatherapies and herbal tea – and for good reason.



The hardest workers in the gym need to be well rested!

Chamomile is reported to have anticancer, anti-inflammatory, anti-anxiety, and sedative effects.[8] In regards to sleep, research shows that **chamomile is a mild sleep-inducer and tranquilizer**. It's proposed that the flavonoids, specifically *apigenin*, found in chamomile extract is able to bind to *benzodiazepine* receptors, resulting in depression of the central nervous system (CNS).[8]

One study in particular using a double-blind, placebo-controlled, experimental design, recruited 34 participants who were recently diagnosed with insomnia.[9] The participants were divided into two groups, one received a placebo, while the other got 270mg of chamomile.[9] After 28 days, **the chamomile group experienced slight improvements in the amount of time it took to fall asleep and it reduced number of times they woke up throughout the night.**[9]

Other research has shown that chamomile is effective at reducing symptoms of general anxiety disorder and improving sleep quality.[10] Overall, this is a solid addition to Dozer and their giving you a very generous dosage!

- **Ashwagandha Root Extract (1.5% *Withania somnifera*) (root) – 200mg**

Ashwagandha quickly made its way into several sports performance and health/wellness supplements, including pre workouts, multi-vitamins, sleep-aids, and stress support products!



Fuel up with Seventh Gear and wind down with Dozer!

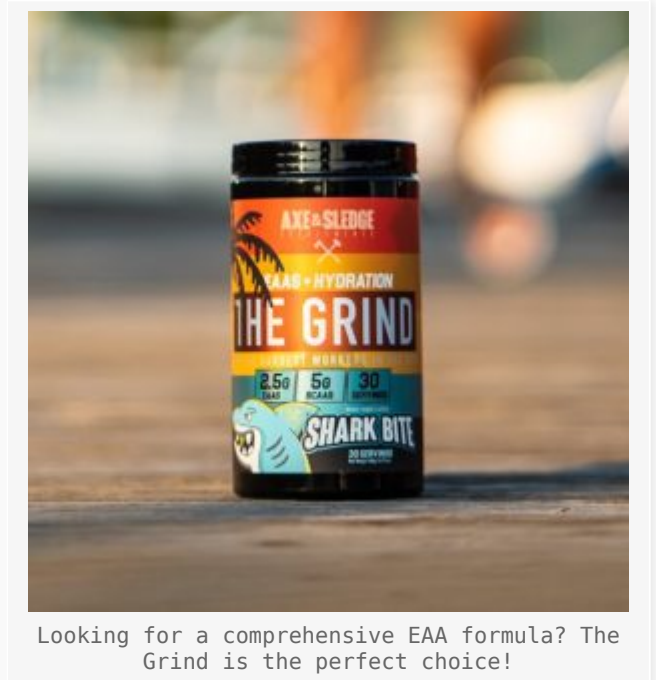
Also known as *withania somnifera*, ashwagandha is an herb native to India and Asia. It offers numerous health benefits and has been widely used in *Ayurvedic* medicine. Studies show that ashwagandha root extract possesses anti-inflammatory, immunomodulatory, neuroprotective, cardioprotective, anti-diabetic, and chondro-protective effects.[11]

It's also well known for being an *adaptogen*, meaning it helps you adapt to both physical and mental stressors. Clinical trials report ashwagandha supplementation improves libido, decreases stress and anxiety, boosts memory, cognition, and exercise performance.[11] It's quite the jack of all trades, which is why several supplement companies are finding ways to include it into their formulas!

The majority of ashwagandha's benefits have been well-established in the literature and now, researchers are now looking into its effects on sleep. In 2019, a study was published that assessed the efficacy and safety of ashwagandha supplementation on insomnia and anxiety.[11]

After 10 weeks, the researchers concluded that **oral supplementation of ashwagandha root extract improved sleep quality and onset of sleep latency, while also reducing anxiety**, in patients with insomnia.[11] Furthermore, another study published in 2020 found that **ashwagandha was also able to improve quality of life, sleep, and mental alertness**.[12]

- **Passion Flower Extract (*Passiflora incarnata*) (herb) – 200mg**



Looking for a comprehensive EAA formula? The Grind is the perfect choice!

Passion flower extract, also known as *passiflora incarnata*, is another herb that's commonly used to make calming evening tea. Studies report that passionflower is mildly sedative and expresses anti-anxiety properties. Although more research is needed to fully understand passionflower's mechanism of action, the most accepted hypothesis is that it's able to increase levels of gamma aminobutyric acid (GABA) within the brain, resulting in decreased brain activity and increased relaxation.[13]

In 2011, a study was conducted to assess the effects of passionflower on overall sleep quality.[14] They used a double-blind, placebo controlled, repeated-measures design, and gave 41 participants either passionflower tea or a placebo.[14] All subjects received both treatments after a 7 day washout period. At the end of the study, the results showed that the **passionflower tea was able to significantly improve sleep quality compared to the placebo**.[14]

Passionflower supplementation seems to be best for people that suffer from frequent sleep disturbances throughout the night. So if that sounds like you, then definitely give Dozer a shot! Furthermore, other research has found that **passionflower is effective at reducing anxiety prior to stressful situations**, such as pre-operative surgery.[15]

- **L-Phenylalanine – 150mg**

L-phenylalanine is an *essential amino acid*, meaning your body cannot synthesize it endogenously. Therefore, it's crucial to get a sufficient amount from your diet and supplementation. Phenylalanine is found in several foods such as meat, fish, eggs, dairy, and various plant sources.

Not only does it serve as a building block for protein synthesis within the body, it can also be converted into *tyrosine*.^[16] As we mentioned before, tyrosine is a major precursor to various neurotransmitters, which help boost brain function, mood, and cell-to-cell communication.^[16] Research shows that phenylalanine may be beneficial for treating a variety of medical conditions including depression and skin disorders.^[16,17]

While there may be no direct benefit for sleep quality, replenishing your body with phenylalanine will most likely lead to better cognitive and physical performance the following day.

- **L-Theanine – 100mg**

It's common to see **L-Theanine** included in pre workouts, so what's it doing in a sleep-aid?



Seventh Gear will power you through the toughest training sessions guaranteed.

L-theanine is great to use alongside high doses of caffeine because it's able to induce a calming effect and decrease the negative side effects that tend to accompany extreme amounts of stimulants including jitters, anxiety, and nervousness.^[18,19] Furthermore, the combination of L-theanine and caffeine seem to have a synergistic effect in boosting mental clarity, focus, and performance. It essentially helps take the edge off caffeine!

However in the context of a sleep-aid, L-Theanine is a great addition to Dozer because it's extremely effective at **promoting rest and relaxation**, especially in the absence of caffeine.[20,21]

L-Theanine is an amino acid derived from tea leaves, also known as *Camellia sinensis*. Studies have found that L-Theanine expresses its calming effects by increasing levels of GABA, serotonin, and dopamine within the brain. While some users report that L-Theanine helps them fall asleep faster, the main conclusion is that it improves sleep *quality* above all else.[22]

• **Mucuna Pruriens Extract – 75mg**

Mucuna pruriens, also called *velvet bean*, is a tropical legume that's native to parts of Asia and Africa. Mucuna pruriens' primary bioactive compound is *levodopa (L-Dopa)*, which is attributed to the majority of its benefits.[23,24]



Those biceps won't grow unless you're getting enough sleep!

It's primarily used to treat neurological conditions, most notably *Parkinson Disease*, and infertility in males.[23,24] There's some research that suggests mucuna pruriens may boost growth hormone, testosterone levels, and decrease cortisol, which could help promote recovery and muscle growth.[23-26] Mucuna pruriens also seems to offer several other health benefits, by serving as a neuroprotective and antioxidant agent.[23,24]

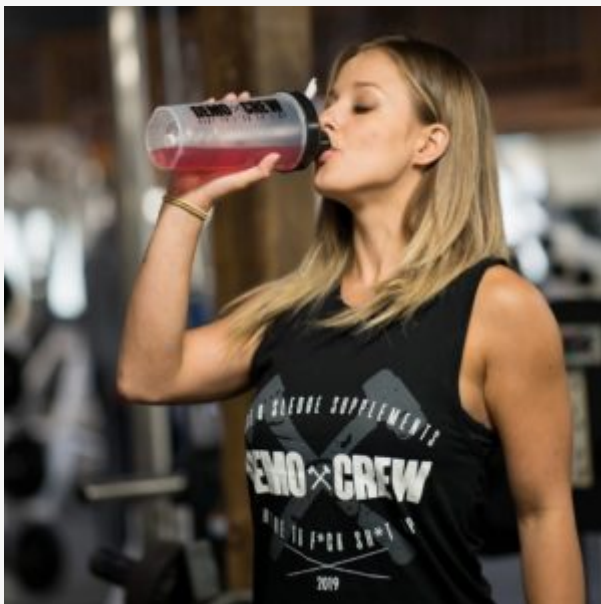
Lastly, some users report increased sleep quality, however more research is needed in this area. One study published in 2012, did find that the combination of mucuna pruriens and *chlorophytum borivillianum* improved sleep quality in both males and females.[25] Another study showed that this same combination resulted in increased growth hormone.[26] Since the majority of

growth hormone is secreted at night, it makes sense that improved sleep quality would lead to a boost in growth hormone levels.

Since Dozer is formulated to help you recover, restore, and sleep well, including a great dose of *mucuna pruriens* makes sense!

- **5-Hydroxytryptophan (5-HTP) – 50mg**

5-Hydroxytryptophan (5-HTP) is a naturally occurring amino acid and precursor to the neurotransmitter *serotonin*, which is responsible for regulating mood, sleep, appetite, digestion, and memory. 5-HTP supplies the body with *tryptophan* to be used for the synthesis of serotonin. Insufficient levels of serotonin have been linked to increased anxiety, depression, poor sleep quality, weight gain, and other health conditions.[27]



Dozer will leave you feeling ready to crush a workout!

Serotonin acts as a precursor to the main hormone involved in sleep, *melatonin*. Therefore, having sufficient amounts of tryptophan, serotonin, and melatonin would anecdotally result in improved quality of sleep. 5-HTP supplementation offers several benefits including appetite suppression, improved mood, enhanced sleep quality.[28]

Although there's minimal amount of research assessing 5-HTP's effect on sleep in isolation, several studies have shown that **when combined with other compounds such as GABA, 5-HTP can significantly enhance quality and duration of sleep, along with reducing the amount of time it takes to fall asleep.**[28] Furthermore, 5-HTP may also decrease the incidence of sleep terrors and panic attacks.[29-31]

Since Axe & Sledge also includes a massive dose of GABA in this formula, expect to get synergistic effects with the combination of 5-HTP!

- **L-Tryptophan – 50mg**

And if 5-HTP wasn't enough, then you have *50mg* of **L-Tryptophan** to make sure you're fully equipped for a great night of sleep!

L-Tryptophan is an essential amino acid that's used to synthesize melatonin after being converted into serotonin.[32] Some people would classify it as a "*time-released*" form of melatonin. You may be wondering why Dozer doesn't just have melatonin included in the formula? Axe & Sledge wanted to make sure this was a globally compliant formula and due to strict regulations overseas, melatonin just doesn't make the cut.



You won't be able to load on the plates if you don't get sufficient sleep.

Due to tryptophan's ability to be converted to melatonin, it can enhance sleep quality, especially if you're deficient. But it can also boost your mood due to increasing levels of serotonin. Research shows that when tryptophan levels become depleted within the brain, then serotonin levels also get negatively affected, followed by mood and overall sense of well-being.[32] Therefore, supplying your body with enough tryptophan through diet and supplementation is a great way to keep your sleep and mood in check!

If Dozer can't help you get the rest you need, then we're not sure what else will! Axe & Sledge continues to produce phenomenal supplements and this is just another one they can add to the list! The importance of sleep and recovery cannot be overstated, therefore if you truly want to be at your best, then make sure sleep is a priority.

Available Flavors of Dozer

If you've tried any products from Axe & Sledge, then you know they nail every one of their flavors. They're known for creating unique flavors the industry has never seen before, such as *Whiskey and Cola* or *Sweet Potato Pie*.

Axe & Sledge always makes sure that the flavor is spot on before putting it up for sale. They believe that the hardest workers in the gym deserve the best tasting supplements on the market and they're the company that's going to deliver!

Here's an updated list of all available flavors of Dozer:

Dozer Ensures Your Sleep and Performance Doesn't Suffer!

Axe & Sledge has yet again brought another phenomenal product to the market with Dozer! When PricePLOW heard that they were working on a sleep-aid, we didn't expect it to be loaded with ten ingredients shown to help you fall asleep faster, stay asleep longer, and restore essential nutrients to aid recovery.



Axe & Sledge has finally entered the sleep-aid category with Dozer!

In order to be the very best, whether it's at work, school, or in the gym, adequate sleep and recovery need to be a top priority. If you have trouble getting 7-8 hours of high quality sleep per night, then don't be surprised if your mental and physical performance start to drastically decline.

We could write an entire book on how important sleep is, but we're confident that several other experts have already done so. Just know that even if you

block out enough time for adequate sleep, that doesn't mean your getting the most out of it. Dozer is here to ensure your rest and recovery is optimized, pick some up and experience the difference of proper sleep!

Axe & Sledge has a lot more on the way, so make sure to subscribe down below to get access to exclusive deals, reviews, news, and interviews!

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References

1. Gottesmann, C; "GABA mechanisms and sleep."; *Laboratoire de Psychophysiologie, Faculté des Sciences, Université de Nice-Sophia Antipolis*; 2002; <https://pubmed.ncbi.nlm.nih.gov/11983310>
2. Nguyen, Tin Quang, Chang-Lin Liang, and Gerald A. Marks. "GABA Receptors Implicated in REM Sleep Control Express a Benzodiazepine Binding Site."; *Brain research* 1527 (2013): 10.1016/j.brainres.2013.06.037; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839793/>
3. Shell, W; "A randomized, placebo-controlled trial of an amino acid preparation on timing and quality of sleep."; *Targeted Medical Pharma, Inc*; 2010; <https://pubmed.ncbi.nlm.nih.gov/19417589>
4. Yoto, A; "Oral intake of γ -aminobutyric acid affects mood and activities of central nervous system during stressed condition induced by mental tasks."; *Laboratory of Nutritional Biochemistry and Global COE Program, University of Shizuoka, School of Food and Nutritional Sciences*; 2012; <https://pubmed.ncbi.nlm.nih.gov/22203366>
5. Goldberg, Joel S. "Selected Gamma Aminobutyric Acid (GABA) Esters May Provide Analgesia for Some Central Pain Conditions."; *Perspectives in Medicinal Chemistry* 4 (2010); <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2918363/>
6. Attipoe, S. et al; *Tyrosine for Mitigating Stress and Enhancing Performance in Healthy Adult Humans, a Rapid Evidence Assessment of the Literature*; *Military Medicine*; Volume 180, Issue 7, July 2015, Pages 754–765; <https://academic.oup.com/milmed/article/180/7/754/4160625#101253256>
7. Steenbergen L, et al; "Tyrosine promotes cognitive flexibility: evidence from proactive vs. reactive control during task switching performance"; *Neuropsychologia*. 2015 Mar;69:50-5; <https://pubmed.ncbi.nlm.nih.gov/25598314>
8. Srivastava, Janmejai K et al. "Chamomile: A herbal medicine of the past with bright future."; *Molecular medicine reports* vol. 3,6 (2010): 895-901; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2995283/>
9. Zick, Suzanna M et al.; "Preliminary examination of the efficacy and safety of a standardized chamomile extract for chronic primary insomnia: a randomized placebo-controlled pilot study."; *BMC complementary and alternative medicine* vol. 11 78. 22 Sep. 2011; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3198755/>

10. Hieu, TH et al; "Therapeutic efficacy and safety of chamomile for state anxiety, generalized anxiety disorder, insomnia, and sleep quality: A systematic review and meta-analysis of randomized trials and quasi-randomized trials."; *Phytother Res.* 2019 Jun;33(6):1604-1615; <https://pubmed.ncbi.nlm.nih.gov/31006899>
11. Langade, Deepak et al.; "Efficacy and Safety of Ashwagandha (*Withania somnifera*) Root Extract in Insomnia and Anxiety: A Double-blind, Randomized, Placebo-controlled Study."; *Cureus vol.* 11,9 e5797. 28 Sep. 2019; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6827862/>
12. Kelgane, Sunil B et al.; "Efficacy and Tolerability of Ashwagandha Root Extract in the Elderly for Improvement of General Well-being and Sleep: A Prospective, Randomized, Double-blind, Placebo-controlled Study."; *Cureus vol.* 12,2 e7083. 23 Feb. 2020; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7096075/>
13. Appel, K; "Modulation of the γ -aminobutyric acid (GABA) system by *Passiflora incarnata* L."; *Phytother Res.* 2011 Jun;25(6):838-43; <https://pubmed.ncbi.nlm.nih.gov/21089181>
14. Ngan, A; "A double-blind, placebo-controlled investigation of the effects of *Passiflora incarnata* (passionflower) herbal tea on subjective sleep quality."; *Phytother Res.* 2011 Aug;25(8):1153-9; <https://pubmed.ncbi.nlm.nih.gov/21294203>
15. Movafegh, A; "Preoperative oral *Passiflora incarnata* reduces anxiety in ambulatory surgery patients: a double-blind, placebo-controlled study."; *Anesth Analg.* 2008 Jun;106(6):1728-32; <https://pubmed.ncbi.nlm.nih.gov/18499602>
16. National Center for Biotechnology Information. PubChem Database. "Phenylalanine, CID=6140"; Accessed May 10th, 2020: <https://pubchem.ncbi.nlm.nih.gov/compound/Phenylalanine>
17. Beckmann, H., Strauss, M.A., & Ludolph, E; "DL-phenylalanine in depressed patients: an open study"; *Journal of neural transmission*, 41(2-3), 123-34; 1977; <https://pubmed.ncbi.nlm.nih.gov/335027>
18. Giesbrecht T. et al; "The combination of L-theanine and caffeine improves cognitive performance and increases subjective alertness"; *Nutr Neurosci.* 2010 Dec;13(6):283-90; <https://doi.org/10.1179/147683010X12611460764840>
19. Owen, GN. et al; "The combined effects of L-theanine and caffeine on cognitive performance and mood"; *Nutr Neurosci.* 2008 Aug;11(4):193-8. doi: 10.1179/147683008X301513; <https://doi.org/10.1179/147683008X301513>
20. Higashiyama, A; "Effects of l-theanine on attention and reaction time response"; University of Shiga Prefecture, Human Culture Department; 2010; <https://www.sciencedirect.com/science/article/pii/S1756464611000351>
21. Lu, K; "The acute effects of L-theanine in comparison with alprazolam on anticipatory anxiety in humans"; *Human Psychopharmacology*, 19 7: 457-465; 2004; <https://espace.library.uq.edu.au/view/UQ:284103>
22. Lyon, M; "The effects of L-theanine (Suntheanine) on objective sleep quality in boys with attention deficit hyperactivity disorder (ADHD): a randomized, double-blind, placebo-controlled clinical trial."; *Altern Med Rev.* 2011 Dec;16(4):348-54.; <https://www.altmedrev.com/publications/16/4/348.pdf>
23. Lampariello, Lucia Raffaella et al. "The Magic Velvet Bean of *Mucuna pruriens*."; *Journal of traditional and complementary medicine vol.* 2,4 (2012): 331-9; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3942911/>
24. Johnson, Shelby L et al. "Levodopa-Reduced *Mucuna pruriens* Seed Extract Shows Neuroprotective Effects against Parkinson's Disease in Murine Microglia and Human Neuroblastoma Cells, *Caenorhabditis elegans*, and *Drosophila melanogaster*."; *Nutrients vol.* 10,9 1139. 22 Aug. 2018; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6164394/>
25. McCarthy, Cameron G et al.; "A dietary supplement containing *Chlorophytum borivilianum* and velvet bean improves sleep quality in men and women."; *Integrative medicine insights vol.* 7 (2012): 7-14; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388003/>
26. Alleman, Rick J Jr et al.; "A blend of *Chlorophytum borivilianum* and velvet bean increases serum growth hormone in exercise-trained men."; *Nutrition and metabolic insights vol.* 4 55-63. 2 Oct. 2011; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738483/>
27. Wurtman JJ and Wurman RJ; "Brain serotonin, carbohydrate-craving, obesity and depression."; *Obes Res.* 1995 Nov;3 Suppl 4:477S-480S; <https://pubmed.ncbi.nlm.nih.gov/8697046>
28. Hell, W; "A randomized, placebo-controlled trial of an amino acid preparation on timing and quality of sleep."; *Am J Ther.* 2010 Mar-Apr;17(2):133-9.; <https://pubmed.ncbi.nlm.nih.gov/19417589>
29. Bruni, O; "L-5-Hydroxytryptophan treatment of sleep terrors in children."; *Eur J Pediatr.* 2004 Jul;163(7):402-7. Epub 2004 May 14.; <https://pubmed.ncbi.nlm.nih.gov/15146330>
30. Schruers, K; "Acute L-5-hydroxytryptophan administration inhibits carbon dioxide-induced panic in panic disorder patients."; *Psychiatry Res.* 2002 Dec 30;113(3):237-43.;

<https://pubmed.ncbi.nlm.nih.gov/12559480>

31. Maron, E; *The effect of 5-hydroxytryptophan on cholecystokinin-4-induced panic attacks in healthy volunteers.*; <https://pubmed.ncbi.nlm.nih.gov/15260907>
32. Young, Simon N.; *“Acute Tryptophan Depletion in Humans: A Review of Theoretical, Practical and Ethical Aspects.”*; *Journal of Psychiatry & Neuroscience* : JPN 38.5 (2013): 294–305; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3756112/>