# STORM Focus: A Nootropic that Disrupts the Norm

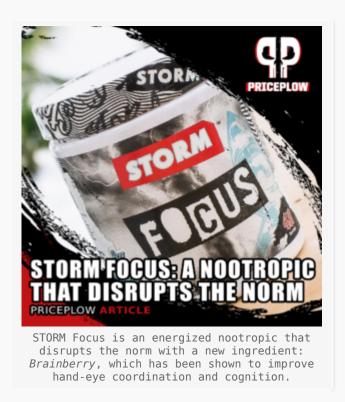
written by Mike Roberto | November 30, 2021 A Storm's a brewin...



A hot new brand has hit the supplement scene, and in 2021, in a time with few new brands coming to market, that's a big deal. Their name is **Storm**, and smashed with an edgy surfer/skater vibe and color scheme that looks like it was pulled from the golden days of the 90s, a moment's glance can tell you that we're about to be treated to something *new*.

#### Meet STORM Supplements

STORM bills itself as "the fuel of choice for all the thrill seekers, norm-destroyers, and rule breakers" — a fitting image in an industry filled full of these types of individuals, whose die-hard consumers are anything but average.



STORM has launched with two formulas - Pre Workout and Focus, both of which bring something new and unique to the table. Normally, we start our

introductions by talking about the pre workout, but with this brand, it's better to disregard the norm. So today, we're covering **STORM Focus**:

#### The STORM Focus Nootropic

Focus is a lightly-energized nootropic supplement that provides a synergistic crew of ingredients to improve cognitive energy, performance, and vigilance — exactly what thrill-seekers and norm-destroyers seek. Each scoop has 75 milligrams of caffeine, allowing you to adjust doses as needed depending on the time of day.

#### Includes newcomer Brainberry

More exciting, we're introduced to a new ingredient named **Brainberry**, which comes from a fruit known as *Aronia*. In this article, we dive into this fruit's potent constituent, with a research study showing improved hand-eye coordination and cognition.

It's below, but first, sign up for our STORM supplement news alerts to get notified when more comes from the brand, and prepare to shatter all expectations and take the world by storm.

### Storm Focus — Deals and Price Drop Alerts

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### **STORM Focus Ingredients**

A single scoop of Focus will yield the following, packed with 75 milligrams of caffeine (so it's possible to double-scoop this one):

• Taurine — 1000 mg

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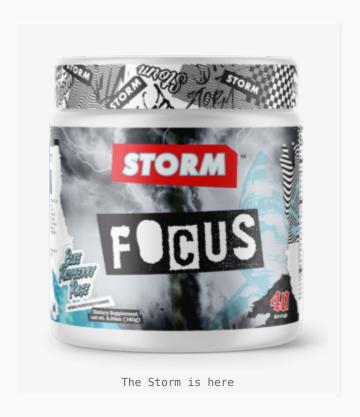
Nobody's getting focused if they're not *hydrated*, and STORM starts Focus off right with a clinical dose of **taurine**, a popular endurance-boosting osmolyte ingredient. By *osmolyte*, we mean that taurine helps keep a healthy balance of water between cells, and supplementing it helps prevent any deficiency.[1]

We often see taurine in pre-workout supplements because it's so effective for promoting endurance.[2] However, those effects actually stem from its osmoregulation mechanisms, as taurine is distributed in nearly *every* tissue and helps stabilize membranes, reduce oxidative stress, and improve calcium signaling for muscle contractions.[1,3]

#### Taurine for *Focus* and *neuroprotection*

When it comes to *focus*, improving taurine levels helps decrease neurological inflammation and stress, improves GABA receptor functionality, and stimulates synapt function.[4] It's important for brain development and promotes brain cell proliferation while protecting from neurotoxic agents.[5]

Even though the body can generate its own taurine, it could almost always use more, and having enough through diet or supplementation prevents the body from running taxing conversions. For this reason, it's considered a *conditionally essential* amino acid.[6]



Taurine also promotes mitochondrial health, supporting our cell "powerhouses" — Molecules recently published an article with 250 citations titled "The Role of Taurine in Mitochondria Health: More Than Just an Antioxidant" that dives deep into the unique amino acid, leading us to believe that it's even more important than we realized.[7]

Finally, some research has shown that taurine can indirectly increase nitric oxide production and increase nitric oxide bioavailability through activation of the nitric oxide synthase enzyme,[8] which can increase blood flow throughout the body (and brain).

Long story short, while taurine can be manufactured by the body, you're almost guaranteed to benefit from an additional dose somewhere in your day — and a nootropic is a great place to start.

#### • L-Tyrosine — 500 mg

Sleep deprived? Then this one's definitely worth knowing about.

**L-Tyrosine** is an amino acid used to increase alertness and focus, since it leads to the production of some of our favorite neurotransmitters, including "feel-good" ones like *norepinephrine* and *dopamine*.[9] Although these are excitatory, tyrosine also helps reduce levels of stress and anxiety.

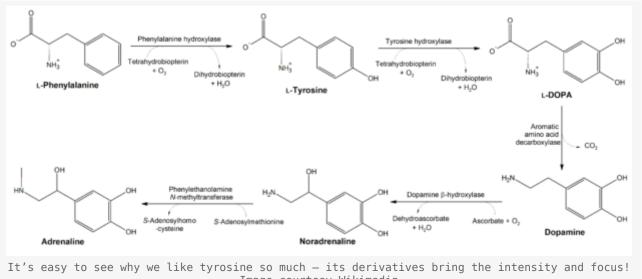


Image courtesy Wikimedia

Our sympathetic nervous system utilizes norepinephrine to activate the "flight or fight" response, which dials you in and helps you make better decisions more quickly. Even better, it turns out that more research has shown that Ltyrosine's effects are especially pronounced in sleep deprived individuals, [10,11] especially when paired with caffeine, which is also in STORM Focus.

500 milligrams is where we generally start feeling L-Tyrosine, and we most often enjoy it at 1 gram or more, which is what you'll get in two scoops, pairing quite well with 150 milligrams of caffeine at that dose.

### • CDP-Choline (Cytidine 5'-Diphosphocholine) - 125 mg

CDP-Choline, also known as citicoline or cytidine 5'-diphosphocholine, as a highly-bioavailable form of choline that provides a bit of an extra "punch" compared to other forms.



Don't miss out on STORM's Apparel - this isn't your typical supplement brand clothing!

First, it's necessary to state that choline is the precursor to acetylcholine, [12] the neurotransmitter used to facilitate cognitive functions like learning, attention, and memory formation. [13,14] With more choline, we can generate more acetylcholine, boosting our focus and everything else that comes with the compound we love to call the "learning neurotransmitter".

However, *citicoline* has a special place in our hearts because it can *also* boost dopamine and norepinephrine levels by boosting dopamine receptor density.[15] This makes it pair incredibly well with L-tyrosine, doubling down on our feel-good sensation of motivation and pleasure.

Our anecdotal experience is that all choline sources are great, but citicoline is *felt* the most, and is the most *experiential*. Note that each scoop of STORM Focus brings 5% of total choline per day, so you're still well-served to continue eating high-choline foods like whole eggs.

#### • Caffeine Anhydrous — 75 mg

STORM Focus is indeed caffeinated, but lightly so, allowing you to double down on some of the ingredients earlier in the day or take just a single scoop to get you through the afternoon. A single scoop of Focus has about as much as a *small* cup of coffee.



At this point, you should know how well you tolerate the magical compound. But scientifically, it works not by *magic*, but by crossing the blood-brain-barrier to inhibit *adenosine* and *phosphodiesterase*,[16] waking you up and increasing all kinds of performance — both physical and mental![17,18]

Specifically, varying doses of caffeine have been shown to reduce reaction time,[19-22] increase wakefulness,[19,23] and boosts overall wellbeing.[19,24] Of course, while doing so, *too* high of a dose can increase anxiety,[25] so it's smart to keep the dosage within reason — and that's

exactly what STORM has done here.

#### • Theobromine - 50 mg

To pair with caffeine, we have its chemical cousin, **theobromine**, which is actually a long-lasting *metabolite* of the ingredient shown above. Similar to caffeine, theobromine inhibits *phosphodiesterase* and *adenosine*, keeping you awake — but it has a longer half-life.[26-28]

Due to that longer half-life, theobromine is most often used as a longer-lasting energy supporter and to reduce appetite.[29,30] Supplement companies often pair it with caffeine to prevent any caffeine crash, but we're honestly not concerned about that STORM Focus. Instead, it also promotes a good "feel" that studies have noted.[31]

## Whole Coffee (Coffea arabica) [Fruit] Extract (as NeuroFactor) — 50 mg

Taking specific extracts from *coffee fruit*, **NeuroFactor** is often used to improve focus through an upregulation of a protein named *BDNF*, or *brain-derived neurotrophic factor*.[32] BDNF is a nerve growth factor that helps with the maturation, survival, and differentiation of nerve cells in our central nervous systems.[33]



Scientists have consistently found a correlation between cognitive function and healthy BDNF levels.[34] When BDNF levels are higher, the brain is offered neuroprotection from toxins and various nervous system disorders.[34,35]

On the other hand, *lower* BDNF levels correlate with an increased risk of neurodegenerative diseases.[33] BDNF levels decrease as mammals age, and are generally lower in males.[36] More details can be found in the 2015 *Archives of Medical Science* article titled "Brain-derived neurotrophic factor and its

clinical implications",[33] but the general point is that our brains and cardiovascular systems do far better with improved BDNF levels.

Thankfully, researchers have shown that a 100 milligram polyphenol-rich dose of coffee fruit extract can boost BDNF levels by 143% within an hour,[34] with the effects outperforming 50 milligrams of chlorogenic acid, the compound that is often attributed to many of coffee's benefits.

## • Baltic Aronia Berry (Aronia melanocarpa) [Fruit] Extract (as Brainberry) — 32.5 mg



Aronia Berries, the source of Cyanidin-3-0-Glycosides rich BrainBerry. Image courtesy Wikimedia

STORM Focus introduces us to a newcomer ingredient, **BrainBerry**, which is a *Baltic Aronia berry extract*, a fruit scientifically known as *Aronia melanocarpa* but also known as "chokeberry".

#### Standardized for *Cyanidin-3-Galactoside*

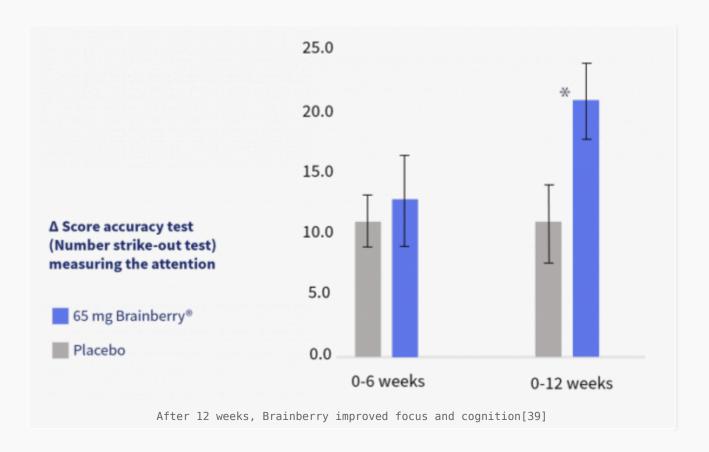
BrainBerry is standardized for high amounts of *Cyanidin-3-0-Glycosides*, specifically *Cyanidin-3-Galactoside*, which animal models have shown to improve spatial memory, boost hippocampal neurons survival, and inhibit pyramidal cell damage.[37] There are additional benefits detailed in a recent 2021 article published in the International Journal of Molecular Sciences titled "*Cyanidin 3-0-galactoside: A Natural Compound with Multiple Health Benefits*",[38] and many fruits contain it, although aronia fruit seems to have some of the highest concentrations.

#### Research on Brainberry

Research has specifically been performed on BrainBerry, published in *Nutrients* in 2020: in a 12-week, double-blind placebo-controlled trial with 101 subjects, participants took 65 milligrams of Brainberry daily or a placebo.[39]



The results were excellent: after six weeks, the Brainberry group had a **significant improvement in psychomotor speed and hand-eye coordination**. And after 12 weeks, the Brainberry group scored a **43**% **increase in concentration**.[39]



It's important to note that the daily dose was what you'd get with *two* scoops of STORM Focus, so keep that in mind as you schedule your caffeine intake throughout the day — we definitely think that this is a worthy use of 150 milligrams of caffeine per day. It'll take a few tubs to run the Brainberry as long as the study cited above.

We are *very* encouraged by the new research on Cyanidin-3-Galactoside and are confident we'll be seeing Brainberry again in the near future.

AstraGin (Astragalus membranaceus [Root] & Panax Notoginseng [Root])
 Extract) — 25 mg

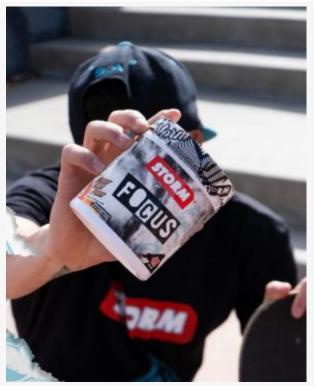


Finally, it's time for our favorite bioavailability enhancer, *NuLiv Science's* **AstraGin**. This patented extract of Astragalus membranaceus and Panax notoginseng root extracts contains ATP-boosting *astragalosides* and *ginsenosides*.[40] Together, these work to boost intestinal permeability, allowing more nutrients to pass through the digestive tract.[41]

NuLiv Science's research has shown that it can increase the absorption of *numerous* amino acids, nutrients, and both water-soluble and fat-soluble vitamins.[42] This is a perfect way to finalize a smooth and successful nootropic in Storm Focus.

#### Flavors Available

So far with STORM's initial supplements, we've been blown away by the flavoring. They've done a great job of sticking with botanicals that taste good, as we imagine Brainberry does. You can find an up-to-date list of flavors of Focus below:



When was the last time you felt truly focused? Dialed in? Now presenting Focus by STORM

#### The STORM has arrived

Make no mistake, 2021 is a tough time to be launching new brands. Supply chains are drying up, prices are high, and the industry is treading *very* carefully. One could say that a storm was already here, but with the launch of this brand, we can now confirm that the *real* Storm is in.

The edgy black, white, and red surfer/skater labels and branding look like an incredible change-up, especially for an industry that sometimes seems to be trying to either "out-scare" or "out-color" the competition. However, for us, it's all about what's *in* the tub, and we're happy to see a moderately-caffeinated supplement that brings us something *new*.

That something new is in the form of Brainberry, whose constituents look extraordinarily promising not only to the nootropic supplement community, but to scientific researchers as well. It's a feel-good, focus-better supplement that will leave you in a better place than you started — and that's exactly what we look for in a STORM after we've been through too long of a drought.

# Storm Focus — Deals and Price Drop Alerts Get Price Alerts

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#### References

- 1. Ripps, H. et al. Nov. 2012. "Review: Taurine: A "Very Essential Amino Acid." Molecular Vision vol. 18. 2673-86. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3501277/
- 2. Waldron, M., et al. May 2018. "The Effects of an Oral Taurine Dose and Supplementation Period on Endurance Exercise Performance in Humans: A Meta-Analysis." Sports Medicine vol. 48,5; 1247-53. https://pubmed.ncbi.nlm.nih.gov/29546641
- 3. Murakami, Shigeru. "Role of Taurine in the Pathogenesis of Obesity." Molecular Nutrition & Food Research, vol. 59, no. 7, 28 Apr. 2015, pp. 1353—1363, 10.1002/mnfr.201500067; https://pubmed.ncbi.nlm.nih.gov/25787113/
- 4. Chen, C. et al. Aug. 2019. "Roles of Taurine in Cognitive Function of Physiology, Pathologies, and Toxication." Life Sciences vol. 15, 231; https://pubmed.ncbi.nlm.nih.gov/31220527/
- 5. Pasantes-Morales, Herminia, and Reyna Hernández-Benítez. "Taurine and Brain Development: Trophic or Cytoprotective Actions?" Neurochemical Research, vol. 35, no. 12, 1 Dec. 2010, pp. 1939—1943, 10.1007/s11064-010-0262-8; https://pubmed.ncbi.nlm.nih.gov/20842422/
- 6. Lourenço, R., and M. E. Camilo. "Taurine: A Conditionally Essential Amino Acid in Humans? An Overview in Health and Disease." Nutricion Hospitalaria, vol. 17, no. 6, 1 Nov. 2002, pp. 262—270; https://pubmed.ncbi.nlm.nih.gov/12514918/
- 7. Jong, Chian Ju, et al. "The Role of Taurine in Mitochondria Health: More than Just an Antioxidant." Molecules, vol. 26, no. 16, 13 Aug. 2021, p. 4913, 10.3390/molecules26164913; https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC8400259/
- 8. Guizoni, D. et al. Jan. 2020. "Modulation of Endothelium-Derived Nitric Oxide Production and Activity by Taurine and Taurine-Conjugated Bile Acids." Nitric Oxide vol. 94,1; 48-53; https://www.sciencedirect.com/science/article/abs/pii/S1089860319302113
- 9. Pietz J, Landwehr R, Kutscha A, Schmidt H, de Sonneville L, Trefz FK. Effect of high-dose tyrosine supplementation on brain function in adults with phenylketonuria. J Pediatr. 1995;127(6):936-943; https://pubmed.ncbi.nlm.nih.gov/8523192
- 10. Attipoe, Selasi, et al. "Tyrosine for Mitigating Stress and Enhancing Performance in Healthy Adult Humans, a Rapid Evidence Assessment of the Literature." Military Medicine, vol. 180, no. 7, July 2015, pp. 754—765, 10.7205/milmed-d-14-00594; https://academic.oup.com/milmed/article/180/7/754/4160625
- 11. Pomeroy, Diane E., et al. "A Systematic Review of the Effect of Dietary Supplements on Cognitive Performance in Healthy Young Adults and Military Personnel." Nutrients, vol. 12, no. 2, 20 Feb. 2020, p. 545, 10.3390/nu12020545; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7071459/
- 12. Purves, Dale, et al. "Acetylcholine." Nih.gov, Sinauer Associates, 2013. https://www.ncbi.nlm.nih.gov/books/NBK11143/
- 13. Jones, Barbara E. "From Waking to Sleeping: Neuronal and Chemical Substrates." Trends in Pharmacological Sciences, vol. 26, no. 11, Nov. 2005, pp. 578—586,

- 10.1016/j.tips.2005.09.009. https://pubmed.ncbi.nlm.nih.gov/16183137
- 14. Hasselmo, Michael E. "The Role of Acetylcholine in Learning and Memory." Current Opinion in Neurobiology, vol. 16, no. 6, Dec. 2006, pp. 710—715, 10.1016/j.conb.2006.09.002. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2659740/
- 15. Secades, JJ; "Citicoline: pharmacological and clinical review, 2016 update;" Rev Neurol; 2017; https://www.researchgate.net/profile/Julio\_Secades/publication/317167480\_Citicoline\_pharmacological\_and\_clinical\_review\_2016\_update/links/59280785a6fdcc444353790e/Citicoline-pharmacological-and-clinical-review-2016-update.pdf
- 16. Fredholm, Bertil B. "Adenosine, Adenosine Receptors and the Actions of Caffeine." Pharmacology & Toxicology, vol. 76, no. 2, Feb. 1995, pp. 93—101, 10.1111/j.1600-0773.1995.tb00111.x; https://pubmed.ncbi.nlm.nih.gov/7746802/
- 17. Lieberman, Harris R, et al. "Effects of Caffeine, Sleep Loss, and Stress on Cognitive Performance and Mood during U.S. Navy SEAL Training. Sea-Air-Land." Psychopharmacology, vol. 164, no. 3, 2002, pp. 250—61, 10.1007/s00213-002-1217-9; https://pubmed.ncbi.nlm.nih.gov/12424548/
- 18. Goldstein, E.R., Ziegenfuss, T., Kalman, D. et al.; "International society of sports nutrition position stand: caffeine and performance"; J Int Soc Sports Nutr 7, 5 (2010); https://link.springer.com/article/10.1186/1550-2783-7-5
- 19. Childs, Emma, and Harriet de Wit. "Subjective, Behavioral, and Physiological Effects of Acute Caffeine in Light, Nondependent Caffeine Users." Psychopharmacology, vol. 185, no. 4, 16 Mar. 2006, pp. 514—523, 10.1007/s00213-006-0341-3; https://pubmed.ncbi.nlm.nih.gov/16541243/
- 20. Duvnjak-Zaknich, Daniel M., et al. "Effect of Caffeine on Reactive Agility Time When Fresh and Fatigued." Medicine & Science in Sports & Exercise, vol. 43, no. 8, Aug. 2011, pp. 1523—1530, 10.1249/mss.0b013e31821048ab; https://pubmed.ncbi.nlm.nih.gov/21266929/
- 21. Adan, Ana, and Josep Maria Serra-Grabulosa. "Effects of Caffeine and Glucose, Alone and Combined, on Cognitive Performance." Human Psychopharmacology: Clinical and Experimental, vol. 25, no. 4, June 2010, pp. 310—317, 10.1002/hup.1115; https://pubmed.ncbi.nlm.nih.gov/20521321/
- 22. Hunt, Melissa G., et al. "Effects of Diurnal Variation and Caffeine Consumption on Test of Variables of Attention (TOVA) Performance in Healthy Young Adults." Psychological Assessment, vol. 23, no. 1, Mar. 2011, pp. 226–233, 10.1037/a0021401; https://pubmed.ncbi.nlm.nih.gov/21244169/
- 23. Barry, Robert J., et al. "Caffeine and Opening the Eyes Have Additive Effects on Resting Arousal Measures." Clinical Neurophysiology, vol. 122, no. 10, Oct. 2011, pp. 2010—2015, 10.1016/j.clinph.2011.02.036; https://pubmed.ncbi.nlm.nih.gov/21489866/
- 24. Duncan, Michael J, and Samuel W Oxford. "The Effect of Caffeine Ingestion on Mood State and Bench Press Performance to Failure." Journal of Strength and Conditioning Research, vol. 25, no. 1, Jan. 2011, pp. 178—185, 10.1519/jsc.0b013e318201bddb; https://pubmed.ncbi.nlm.nih.gov/21157384/
- 25. Rogers, Peter J, et al. "Association of the Anxiogenic and Alerting Effects of Caffeine with ADORA2A and ADORA1 Polymorphisms and Habitual Level of Caffeine Consumption."

  Neuropsychopharmacology, vol. 35, no. 9, 2 June 2010, pp. 1973—1983, 10.1038/npp.2010.71; https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC3055635/
- 26. Zandvliet, Anthe S., et al. "Population Pharmacokinetics of Caffeine and Its Metabolites Theobromine, Paraxanthine and Theophylline after Inhalation in Combination with Diacetylmorphine." Basic & Clinical Pharmacology & Toxicology, vol. 96, no. 1, 1 Jan. 2005, pp. 71—79, 10.1111/j.1742-7843.2005.pto960111.x; https://pubmed.ncbi.nlm.nih.gov/15667599/
- 27. Drouillard, D. D., et al. "Studies on Theobromine Disposition in Normal Subjects.
  Alterations Induced by Dietary Abstention from or Exposure to Methylxanthines." Clinical Pharmacology and Therapeutics, vol. 23, no. 3, 1 Mar. 1978, pp. 296–302, 10.1002/cpt1978233296; https://pubmed.ncbi.nlm.nih.gov/627135/
- 28. Tarka, S. M., et al. "Theobromine Kinetics and Metabolic Disposition." Clinical Pharmacology and Therapeutics, vol. 34, no. 4, 1 Oct. 1983, pp. 546-555, 10.1038/clpt.1983.212; https://pubmed.ncbi.nlm.nih.gov/6617078/
- 29. Martínez-Pinilla E. et al. Feb. 2015. "The Relevance of Theobromine for the Beneficial Effects of Cocoa Consumption." Frontiers of Pharmacology vol. 6:30. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4335269/
- 30. Khazan, M. et al. Mar. 2014. "Identification and Determination of Synthetic Pharmaceuticals as Adulterants in Eight Common Herbal Weight Loss Supplements." Iranian Red Crescent Medical Journal vol. 16,3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4005444/
- 31. Baggott, Matthew J., et al. "Psychopharmacology of Theobromine in Healthy Volunteers."

- Psychopharmacology, vol. 228, no. 1, 19 Feb. 2013, pp. 109—118, 10.1007/s00213-013-3021-0; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3672386/
- 32. Phillips C. Brain-Derived Neurotrophic Factor, Depression, and Physical Activity: Making the Neuroplastic Connection. Neural Plast. 2017;2017:7260130. doi: 10.1155/2017/7260130. Epub 2017 Aug 8. PMID: 28928987; PMCID: PMC5591905. https://pubmed.ncbi.nlm.nih.gov/28928987/
- 33. Bathina, Siresha, and Undurti N. Das. "Brain-Derived Neurotrophic Factor and Its Clinical Implications." Archives of Medical Science, vol. 6, 2015, pp. 1164—1178, 10.5114/aoms.2015.56342; https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC4697050/
- 34. Reyes-Izquierdo, Tania, et al. "Modulatory Effect of Coffee Fruit Extract on Plasma Levels of Brain-Derived Neurotrophic Factor in Healthy Subjects." The British Journal of Nutrition, vol. 110, no. 3, 28 Aug. 2013, pp. 420—425, 10.1017/S0007114512005338. https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/modulatory-eff ect-of-coffee-fruit-extract-on-plasma-levels-of-brain-derived-neurotrophic-factor-in-healthy-subjects/8B291E8D053143AA5A8D33B65496B034
- 35. Miranda, Magdalena, et al. "Brain-Derived Neurotrophic Factor: A Key Molecule for Memory in the Healthy and the Pathological Brain." Frontiers in Cellular Neuroscience, vol. 13, 7 Aug. 2019, 10.3389/fncel.2019.00363. https://www.frontiersin.org/articles/10.3389/fncel.2019.00363/full
- 36. Zhang, Hong-Tian, et al. "Immunohistochemical Distribution of NGF, BDNF, NT-3, and NT-4 in Adult Rhesus Monkey Brains." Journal of Histochemistry & Cytochemistry, vol. 55, no. 1, 9 Aug. 2006, pp. 1—19, 10.1369/jhc.6a6952.2006; https://pubmed.ncbi.nlm.nih.gov/16899765/
- 37. Tan, Long, et al. "Cyanidin-3-0-Galactoside and Blueberry Extracts Supplementation Improves Spatial Memory and Regulates Hippocampal ERK Expression in Senescence-Accelerated Mice." Biomedical and Environmental Sciences: BES, vol. 27, no. 3, 1 Mar. 2014, pp. 186—196, 10.3967/bes2014.007; https://pubmed.ncbi.nlm.nih.gov/24709099/
- 38. Liang, Zhongxin, et al. "Cyanidin 3-0-Galactoside: A Natural Compound with Multiple Health Benefits." International Journal of Molecular Sciences, vol. 22, no. 5, 1 Mar. 2021, 10.3390/ijms22052261; https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC7956414/
- 39. Ahles, Sanne, et al. "The Effect of Long-Term Aronia Melanocarpa Extract Supplementation on Cognitive Performance, Mood, and Vascular Function: A Randomized Controlled Trial in Healthy, Middle-Aged Individuals." Nutrients, vol. 12, no. 8, 17 Aug. 2020, p. 2475, 10.3390/nu12082475; https://www.mdpi.com/2072-6643/12/8/2475/htm
- 40. Roumayeh, Christopher, et al; "Nutritional Compositions and Methods"; United States Patent US20150099032A1; April 9, 2015; https://patents.google.com/patent/US20150099032A1/en
- 41. Lee, Shih-Yu, et al. "Astragaloside II Promotes Intestinal Epithelial Repair by Enhancing L-Arginine Uptake and Activating the MTOR Pathway." Scientific Reports, vol. 7, no. 1, 26 Sept. 2017, p. 12302, 10.1038/s41598-017-12435-y. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5614914/
- 42. NuLiv Science; AstraGin Product Dossier; https://docdro.id/rA01t90