

Supplements for ADHD

An overview of potentially helpful nutritional support options

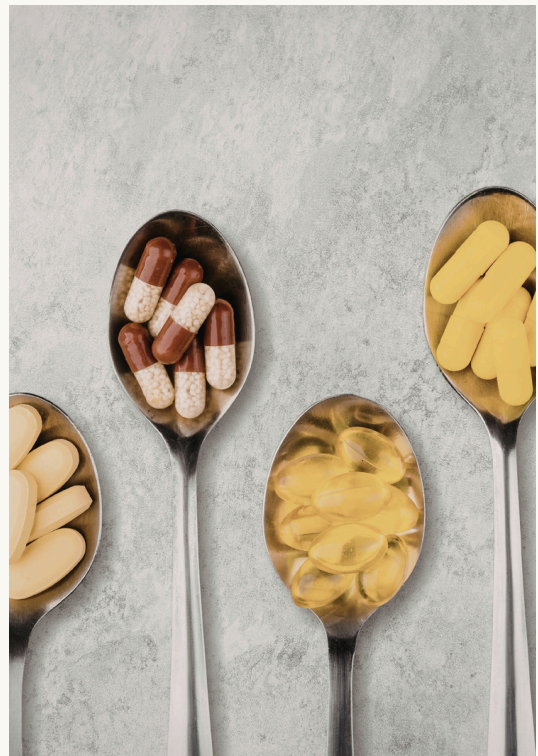
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Introduction to Supplements

Understanding Nutrition's Role in Cognitive Health

Supplements are not a treatment for ADHD but nutrition and certain nutritional supports can play a meaningful role in how a brain with ADHD functions day to day. This overview covers the supplements most commonly discussed in the ADHD literature, what the evidence actually says, and what to keep in mind before adding anything new. As always, talk to your prescribing provider before starting any supplement, particularly if you are on ADHD medication.



Omega-3 Fatty Acids

Foundational support for brain health and function

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Omega-3 fatty acids, particularly EPA and DHA, are among the most researched nutritional supports for ADHD. The evidence is not definitive, but it is consistent enough to take seriously: several studies suggest that taking omega-3 supplements may modestly **improve attention, reduce impulsivity, and support emotional regulation**, particularly in people with lower baseline levels.

Many adults with ADHD have less than ideal omega-3 intake. Fatty fish, flaxseed, and walnuts are good dietary sources and fish oil supplements are well tolerated for most people.

Dosage matters: most studies showing benefit used 1-2g of combined EPA and DHA daily. Discuss dosage with your doctor, particularly if you are on blood thinners.

Magnesium

Promoting Optimal Nervous System Health



Magnesium is involved in over 300 biochemical processes in the body, including neurotransmitter regulation and nervous system function. Research suggests that magnesium **deficiency is more common in people with ADHD than in the general population**, and that low levels may contribute to **hyperactivity, irritability, and sleep difficulty**.

Correcting a deficiency, through either diet or supplements, often improves these symptoms noticeably.

Magnesium glycinate or magnesium bisglycinate tend to be better tolerated than magnesium oxide, which can cause digestive upset. It is also one of the more useful supplements for sleep support in ADHD, which makes it worth discussing if **insomnia** is something you struggle with.



Vitamin D

Essential for Mood and Cognitive Functionality



Vitamin D deficiency is common in Canada, especially in provinces with limited sun exposure for much of the year. Research also suggests this **deficiency may be more prevalent in people with ADHD**. Low vitamin D is associated with **mood dysregulation, fatigue, and cognitive difficulties** that can look a lot like ADHD symptoms, or make existing ADHD harder to manage.

Getting your levels tested before starting supplements is highly encouraged as **vitamin D toxicity, though rare, is possible with high dose supplementation over time**. If your levels are low, increased your vitamin D intake often makes a noticeable difference to **mood and energy**.



Iron and Zinc

Essential minerals for cognitive development and management



Both iron and zinc play a role in **dopamine production and regulation** which is directly related to ADHD, given that ADHD involves dopamine system dysregulation. Research has found lower zinc and ferritin levels in some adults with ADHD, and there is evidence that correcting deficiencies may **improve attention and reduce impulsivity**.

Please be aware that **supplementing iron without a confirmed deficiency can be harmful as iron toxicity is a real risk**. Get levels tested before supplementing either of these. If deficiency is confirmed, addressing it is worthwhile. **If levels are normal, supplementation is unlikely to help and may cause harm.**

Protein

Supporting Cognitive Function and Focus



Protein provides the amino acid building blocks for dopamine and norepinephrine. These are the neurotransmitters most directly involved in ADHD. Inadequate protein intake can **worsen focus, mood stability, and energy regulation** throughout the day.

This is particularly relevant in the morning: many adults with ADHD skip breakfast or eat a carbohydrate heavy one. This can contribute to a mid-morning crash in focus and mood.

Prioritizing protein at breakfast is one of the simplest and most evidence supported nutritional changes someone can make for ADHD management. Great breakfast ideas are eggs, Greek yogurt, nuts, or a protein rich smoothie!



L-Theanine

Understanding the Role of L-Theanine in ADHD Support



L-theanine is an amino acid found naturally in green tea. It's known for its **calming effect on the nervous system** without causing drowsiness. It is often discussed in ADHD contexts because of its potential to **take the edge off anxiety and hyperarousal** without sedation. This is a combination that is notoriously difficult to achieve.

The evidence base for L-theanine specifically in ADHD is limited but emerging. It is generally considered safe and well tolerated. Some people find it particularly useful in the **evening** to support the nighttime wind down without impairing function.

As with all supplements, start low and discuss with your healthcare provider.



Supporting Sleep Cycles

Enhancing Rest for Improved Focus and Mood



Sleep and ADHD have a complicated relationship. **ADHD brains are often more activated in the evening as their nervous system does not downregulate on a conventional schedule.** This makes falling asleep genuinely harder, not just a matter of discipline or routine.

Melatonin, particularly low-dose melatonin (0.5–1mg) taken 30–60 minutes before sleep, has reasonable evidence for improving sleep onset in adults with ADHD.

Magnesium, discussed above, also supports sleep quality. Neither is a substitute for addressing the underlying sleep patterns. CBTi is the most effective treatment for insomnia but both melatonin and magnesium can help in the short term.



Important Safety Considerations

Understanding Interactions and Dosage Guidelines



Supplements are **not regulated the same way medications** are and quality and purity vary significantly between brands. Look for products that have been third party tested.

Some supplements interact with ADHD medications, particularly stimulants. Always disclose what you are taking to your prescribing provider.

With supplements, **more is not better.** Starting with one supplement at a time, at a low dose, lets you assess what is actually helping.

No supplement can replace the foundational basics: sleep, movement, protein, and reducing ultra processed food. Those matter more than any supplement.



Supplements for ADHD

References & Supporting Evidence

The following references support the content in this guide. Where possible, peer reviewed studies and systematic reviews have been prioritized. Many foundational studies in this area were conducted in children and youth and therefore, adult specific literature is more limited. Clinical judgement should be applied when extrapolating these findings to adult populations.

Omega-3 Fatty Acids

1. Bloch, M. H., & Qawasmi, A. (2011). Omega-3 fatty acid supplementation for the treatment of children with attention-deficit/hyperactivity disorder symptomatology: Systematic review and meta-analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50(10), 991–1000.
2. Chang, J. P., Su, K. P., Mondelli, V., & Pariante, C. M. (2018). Omega-3 polyunsaturated fatty acids in youths with attention deficit hyperactivity disorder: A systematic review and meta-analysis of clinical trials and biological studies. *Neuropsychopharmacology*, 43(3), 534–545.
3. Milte, C. M., Parletta, N., Buckley, J. D., Coates, A. M., Young, R. M., & Howe, P. R. (2012). Eicosapentaenoic and docosahexaenoic acids, cognition, and behavior in children with attention-deficit/hyperactivity disorder. *Nutrition*, 28(6), 670–677.

Magnesium

4. Koziol, T., & Starobrat-Hermelin, B. (1997). Assessment of magnesium levels in children with attention deficit hyperactivity disorder (ADHD). *Magnesium Research*, 10(2), 143–148.



5. Mousain-Bosc, M., Roche, M., Polge, A., Pradal-Prat, D., Rapin, J., & Bali, J. P. (2006). Improvement of neurobehavioral disorders in children supplemented with magnesium-vitamin B6. *Magnesium Research*, 19(1), 46–52.

Vitamin D

6. Shaffer-Hudkins, E., Johnson, J., Monroe, C., & Silver, C. H. (2019). Vitamin D and ADHD: A systematic review. *International Journal of Environmental Research and Public Health*, 16(18), 3445.

7. Bener, A., Kamal, M., Bener, H., & Bhugra, D. (2014). Higher prevalence of iron deficiency as strong predictor of attention deficit hyperactivity disorder in children. *Annals of Medical and Health Sciences Research*, 4(Suppl 3), S291–S297.

Iron & Zinc

8. Konofal, E., Lecendreux, M., Arnulf, I., & Mouren, M. C. (2004). Iron deficiency in children with attention-deficit/hyperactivity disorder. *Archives of Pediatrics & Adolescent Medicine*, 158(12), 1113–1115.

9. Arnold, L. E., & DiSilvestro, R. A. (2005). Zinc in attention-deficit/hyperactivity disorder. *Journal of Child and Adolescent Psychopharmacology*, 15(4), 619–627.

10. Bilici, M., Yıldırım, F., Kandil, S., Bekaroğlu, M., Yıldırım, S., Değer, O., & Aksu, H. (2004). Double-blind, placebo-controlled study of zinc sulfate in the treatment of attention deficit hyperactivity disorder. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 28(1), 181–190.

Protein & Nutrition

11. Millichap, J. G., & Yee, M. M. (2012). The diet factor in attention-deficit/hyperactivity disorder. *Pediatrics*, 129(2), 330–337.

12. Wurtman, R. J., Wurtman, J. J., Regan, M. M., McDermott, J. M., Tsay, R. H., & Breu, J. J. (2003). Effects of normal meals rich in carbohydrates or proteins on plasma tryptophan and tyrosine ratios. *American Journal of Clinical Nutrition*, 77(1), 128–132.



L-Theanine

13. Lyon, M. R., Kapoor, M. P., & Juneja, L. R. (2011). The effects of L-theanine on objective sleep quality in boys with attention deficit hyperactivity disorder (ADHD): A randomized, double-blind, placebo-controlled clinical trial. *Alternative Medicine Review, 16*(4), 348–354.
14. Nobre, A. C., Rao, A., & Owen, G. N. (2008). L-theanine, a natural constituent in tea, and its effect on mental state. *Asia Pacific Journal of Clinical Nutrition, 17*(Suppl 1), 167–168.

Sleep & Melatonin

15. Van der Heijden, K. B., Smits, M. G., Van Someren, E. J., Ridderinkhof, K. R., & Gunning, W. B. (2007). Effect of melatonin on sleep, behavior, and cognition in ADHD and chronic sleep-onset insomnia. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*(2), 233–241.
16. Hvolby, A. (2015). Associations of sleep disturbance with ADHD: Implications for treatment. *ADHD Attention Deficit and Hyperactivity Disorders, 7*(1), 1–18.

General Reviews

17. Rucklidge, J. J., & Kaplan, B. J. (2014). Broad-spectrum micronutrient treatment for attention-deficit/hyperactivity disorder: Rationale and evidence to date. *CNS Drugs, 28*(9), 775–785.
18. Hurt, E., Arnold, L. E., & Lofthouse, N. (2011). Dietary and nutritional treatments for attention-deficit/hyperactivity disorder: Current research support and recommendations for practitioners. *Current Psychiatry Reports, 13*(5), 323–332.
19. Pelsser, L. M., Frankena, K., Toorman, J., & Pereira, R. R. (2017). Diet and ADHD, reviewing the evidence: A systematic review of meta-analyses of double-blind placebo-controlled trials evaluating the efficacy of diet interventions on the behavior of children with ADHD. *PLOS ONE, 12*(1), e0169277.

This reference list is provided for informational purposes and supports the educational content in the Supplements for ADHD guide. It does not constitute a systematic review or clinical recommendation. Supplement decisions should be made in consultation with a qualified healthcare provider, particularly when ADHD medication is involved.

Selene Therapy & Wellness does not endorse specific supplement brands or products.



Melinda Aspell, MSW, RSW, ADHD-CCSP, MMHCP

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