



Clinical Trial [J Diet Suppl. 2021;18\(2\):119-131. doi: 10.1080/19390211.2020.1731044.](#)

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L-Threonic Acid Magnesium Salt Supplementation in ADHD: An Open-Label Pilot Study

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Abstract

Objective: Attention-deficit/hyperactivity disorder (ADHD) is estimated to affect up to 5% of adults worldwide. Preclinical work demonstrates that L-Threonic Acid Magnesium Salt (LTAMS) administration is associated with neurobiological and neurofunctional effects that could offer clinical benefits in ADHD treatment. **Methods:** Participants were 15 adults with ADHD of moderate severity. Subjects received up to 12 weeks of open-label LTAMS administered as MMFS302 and MMFS202. The study was approved by the Institutional Review Board and posted on ClinicalTrials.Gov ([NCT02558790](#)). **Results:** 47% of subjects met our criteria of response attaining a CGI-Improvement score ≤ 2 and AISRS total reduction $\geq 25\%$. Significant improvement was seen in the AISRS, CGI-I, and the shifting subscale of the BRIEF. Changes in IQ and WASI-II performance were favorable and significant in the study population. **Conclusion:** LTAMS supplementation was found to be effective and well tolerated. Nearly half of participants met our definition of ADHD symptom clinical response. These results support the need to further evaluate this compound in larger samples under double-blind conditions.

Keywords: Attention Deficit Hyperactivity Disorder; L-threonic acid magnesium salt; clinical trial; neuropharmacology.

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