

Healthcare Professional ADHD Resource Kit

Bringing ADHD into Focus



†EQUAZEN® PRO is a medical food to support learning, concentration, and brain development in children and adolescents with ADHD (attention-deficit/hyperactivity disorder) who have been determined by medical evaluation to require nutritional management of polyunsaturated fatty acid deficiencies that cannot be achieved by modification of normal diet alone. **Use Under Medical Supervision.**

Addressing Genetic Differences: The ADHD-Omega Fatty Acid Connection

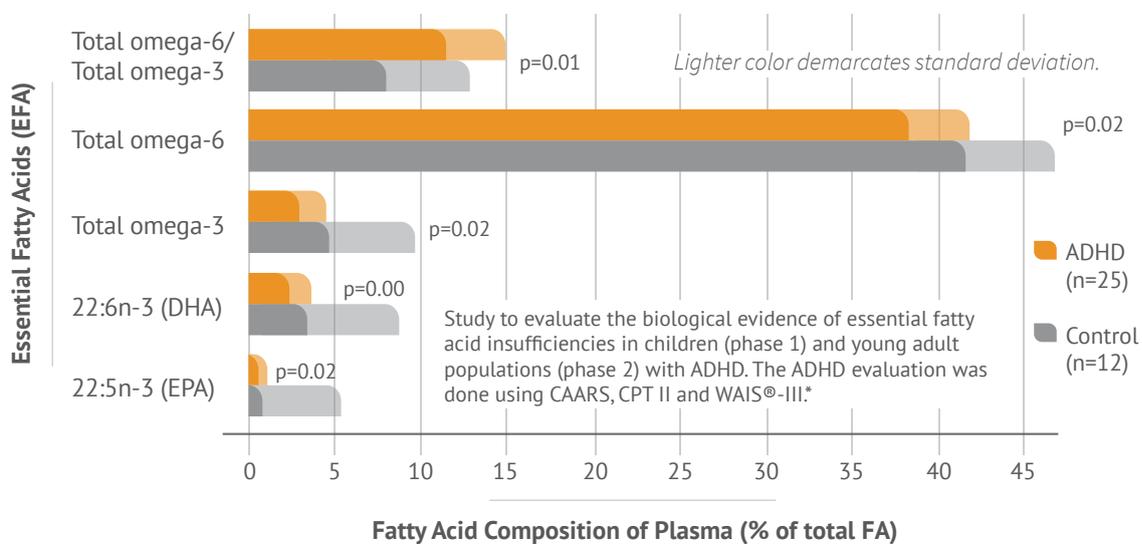
ADHD affects nearly 6.1 million children in the U.S.

Incidence is 11% and growing in children aged 4 to 17 years of age—and an estimated 50% of those cases may persist into adulthood.

ADHD is associated with impaired omega fatty acid balance.

Individuals with ADHD often have substantial deficiencies of essential fatty acids, as well as marked omega-3/omega-6 ratio imbalances. This is important because omega fatty acid deficiencies are thought to negatively affect nervous system structure and function, which in turn may impact the regulation of crucial signaling molecules and inflammatory pathways in the brain.

Many patients with attention-deficit/hyperactivity disorders have impaired omega-6/omega-3 ratios, indicating imbalance.¹



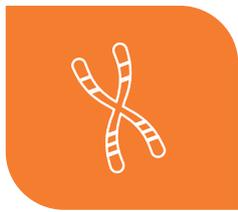
*CAARS: Conners' Adult ADHD Rating Scales; CPT II: Conners' Continuous Performance Test; WAIS®-III: Wechsler Adult Intelligence Scale®

On average, children with attention-deficit/hyperactivity disorders had:¹

- + Significantly smaller fractions of omega-3 and omega-6 in the blood
- + Significantly higher omega-6/omega-3 ratio

How does this occur?

The answer is in the genes. Specific inborn genetic differences found in many individuals with ADHD can reduce the functional efficiency of enzymes that serve as rate-limiting steps for long-chain polyunsaturated fatty acid metabolism.



FADS-1 and FADS-2 genes are found in a genetically “hot” region for ADHD (on the 11th chromosome).^{6,9-14}



These genes code for desaturase enzymes (delta-5 and delta-6) that convert essential fatty acids to long-chain polyunsaturated fatty acids.



In ADHD, different alleles can result in different forms of these enzymes, which may be less efficient at processing long-chain omega fatty acids.^{9,15}

What can be done?

These genetic differences make it difficult to rebalance omega fatty acid deficiencies in ADHD patients through normal diet modification alone.

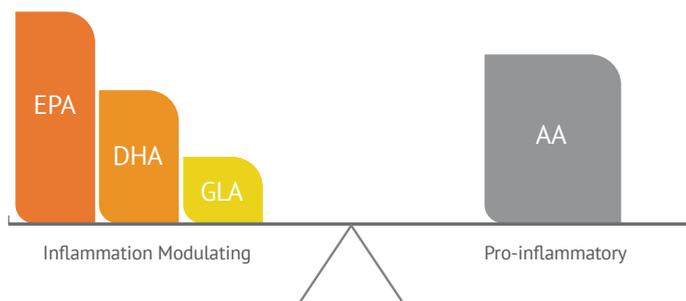
It is necessary to overcome the rate-limiting steps of fatty acid metabolism by providing an optimal balance of omega-3 and omega-6 fatty acids in bioavailable forms.

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Introducing EQUAZEN[®] PRO

A medical food designed to address omega fatty acid metabolic differences in children and adolescents with ADHD.[†]



Combining higher amounts of EPA with DHA and an optimal balance of GLA has been shown to support a proper inflammatory response by balancing the production of metabolites that come from AA (arachidonic acid) and maintaining the supportive capabilities of EPA, DHA, and GLA.



Patient Outcomes

Supported by over 15 years of research and 19 clinical studies in the areas of learning, attention and focus, and brain development.



Supports children's attention control, vocabulary, and immediate memory recall^{†4,7}



Improves inattentive behavior^{†1-7}



Supports balanced mood^{†1-4}



Improves academic performance^{†1-4}

Key features

- + Can be used to provide nutritional support in combination with traditional ADHD therapy.¹⁶
- + Responsibly sourced from fish oils and evening primrose oil
- + Patented anti-reflux technology to minimize reflux/fishy taste

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The Evidence

Significant improvements in key ADHD indices⁷

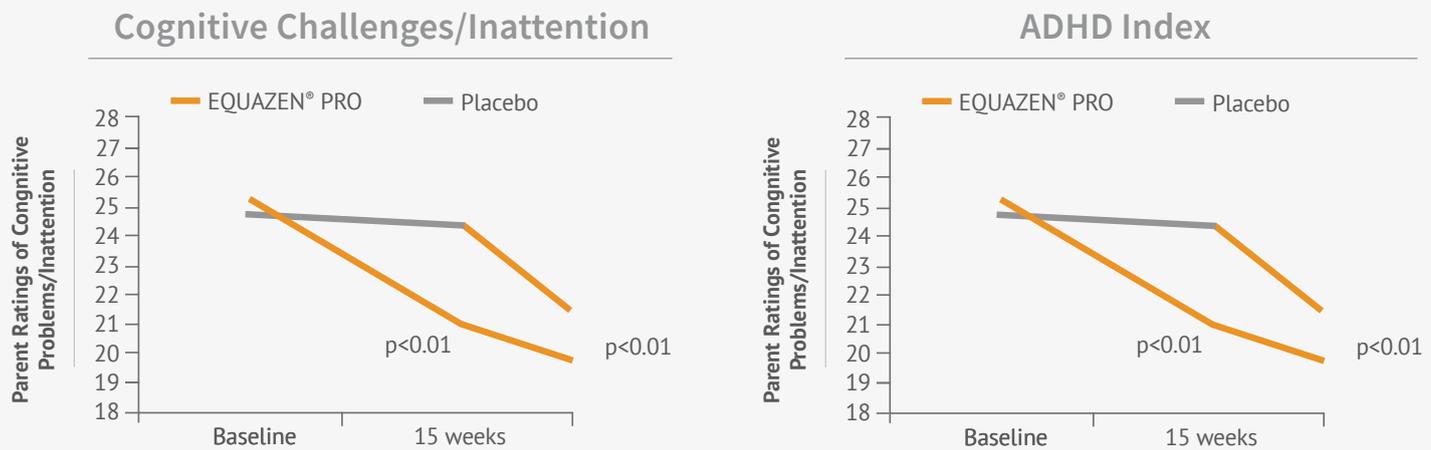


Figure 1. Randomized, placebo-controlled trial in 132 children (aged 7 to 12 years) with learning and behavioral problems associated with ADHD. Subjects were randomized to treatment with either EQUAZEN[®] PRO, EQUAZEN[®] PRO + a multivitamin/mineral product, or placebo for 15 weeks. From week 16 to 30, all participants were switched to EQUAZEN[®] PRO + a multivitamin/mineral.* Children were evaluated using the Conners' Parent Rating Scale (CPRS) and the Conners' Teacher Rating Scale (CTRS).⁷

*Supplementation with the multivitamin/mineral product offered no additional benefits over EQUAZEN[®] PRO.

Significant improvements in reading and spelling age¹

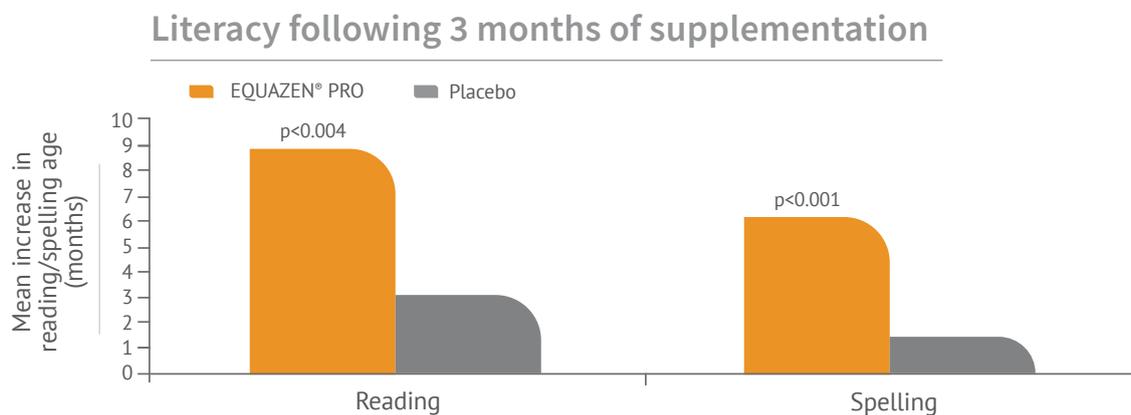


Figure 2. Randomized, double-blind, placebo-controlled trial in 117 children (aged 5 to 12 years) who met criteria for Developmental Coordination Disorder (DCD).[#] Subjects were randomized to receive either EQUAZEN[®] PRO or placebo for 12 weeks and were assessed for reading and spelling ability (Wechsler Objective Reading Dimensions [WORD]) and for ADHD symptoms (Conners' Teacher Rating Scale-Revised: Long Form [CTRS-R:L]).

[#]DCD is characterized by specific impairments of motor function and shows substantial overlap with ADHD in terms of difficulties with organizational skills and attention.

What is a medical food?

Medical foods are specially formulated and intended for the dietary management of a disease or condition that has distinctive nutritional needs which cannot be met through normal diet modification alone. Because patients who use these solutions have health conditions that require medical management, medical foods are to be used under the ongoing supervision of a healthcare practitioner.

EQUAZEN[®] PRO

*Increase their attention span and focus,
uncover their potential*

Rebalance omega fatty acid deficiencies with the 9:3:1 ratio

9 EPA

3 DHA

1 GLA

Your patients deserve the ratio that works. Backed by over 15 years of ongoing clinical research, EQUAZEN[®] PRO leverages the beneficial actions of both omega-3 and omega-6 fatty acids, overcoming genetic variants—and the rate-limiting steps of long-chain polyunsaturated fatty acid metabolism—to provide exceptional results.

About the ingredients

In EQUAZEN[®] PRO, the fish oils from cold-water fish—anchovies, sardines, and tuna found in the Pacific, Atlantic, and Indian Oceans—are harnessed as a natural source of EPA and DHA. The fish oils are extracted using PureMax[®] technology—which removes contaminants and minimizes the presence of oxidative impurities—before they undergo rigorous testing for environmental pollutants and toxins. Our suppliers have been certified to Friend of the Sea[®] criteria for responsible and sustainable sourcing. The sole source of GLA in EQUAZEN[®] PRO is evening primrose oil, which represents an excellent, plant-based source.

About the patented anti-reflux technology

EQUAZEN[®] PRO uses a specific enteric coating technology that reduces the possibility of fishy taste or reflux.



References

1. Richardson AJ, Montgomery P. *Paediatrics*. 2005;115:1360-1366.
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9. Brookes KJ, et al. *Biol Psychiatry*. 2006;60(10):1053-1061.
10. Lattka E, et al. *Br J Nutr*. 2013;109(7):1196-1210.
11. Merino DM, Ma DW, Mutch DM. *Lipids Health Dis*. 2010;9:63.
12. Parletta N, Niyonsenga T, Duff J. *PLoS One*. 2016;11(5):e0156432.
13. Gizer IR, Ficks C, Waldman ID. *Hum Genet*. 2009;126: 51-90.
14. Arcos-Burgos M, et al. *Am J Hum Genet*. 2004;75(6):998-1014.
15. Xie L, Innis SM. *J Nutr*. 2008;138:222-8.
16. Barragán E, Breuer D, Döpfner M. *J Atten Disord*. 2017;21(5):433-441.
17. Derbyshire E. *Lipids*. 2017;6285218.
18. Muskiet FAJ. Pathophysiology and Evolutionary Aspects of Dietary Fats and Long-Chain Polyunsaturated Fatty Acids across the Life Cycle. In: Montmayeur JP, le Coutre J, eds. *Fat Detection: Taste, Texture, and Post Ingestive Effects*. Boca Raton (FL): CRC Press/Taylor & Francis; 2010.
19. Anand D, et al. *Front Psychiatry*. 2017;8:228.
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21. Lee JM, et al. *Nutrients*. 2016;8(1):23.
22. Barham JB, et al. *J Nutr*. 2000;130:1925-31.

Note: The original research was conducted on Equazen® eye q™ which is equivalent to the active ingredients in Equazen® Pro.



Bringing ADHD into Focus: The ADHD-Omega Fatty Acid Connection

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SFI® Health is a leading natural healthcare company and producer of premium, evidence-based products. SFI® Health is proud to be the home of Klaire Labs®.

For 50 years, Klaire Labs® has been committed to providing premium products designed to support healthcare practitioners as they promote a better well-being for their patients.

EQUAZEN[®] PRO

A medical food to support learning, concentration, and brain development in children and adolescents with ADHD^{†1-7}

Introduction

SFI[®] Health, home of Klaire Labs[®], presents EQUAZEN[®] PRO. According to a national parent survey, attention-deficit/hyperactivity disorder (ADHD) is estimated to affect 6.1 million children across the U.S., a prevalence of 11% in children aged 4 to 17 years of age.⁸ This common neurodevelopmental disorder is associated with hyperactivity, inattention, and learning difficulties, and persists into adulthood in an estimated 50% of cases.⁹ It has traditionally been managed with pharmacotherapy, behavioral therapy, or a combination of the two.⁸ However, up to 30% of patients do not respond to stimulant medications,¹⁰ and there are concerns and controversies surrounding the side effects and long-term safety of such drugs.

Research over the past 40 years has shown that many children with ADHD have significantly lower levels of essential fatty acids in their brains. Due to genetic differences in the way they metabolize dietary fats, they are not able to rebalance this from the diet alone.^{6,11-15} These deficiencies are thought to affect cell membrane structure and integrity, which in turn may affect the regulation of crucial signaling molecules and inflammatory pathways in the brain. EQUAZEN[®] PRO is a medical food to support learning, concentration, and brain development in children and adolescents with ADHD.^{†1-7} Its unique composition of omega-3 and omega-6 fatty acids—in the clinically tested ratio EPA:DHA:GLA=9:3:1—promotes healthy fatty acid metabolism and balanced omega fatty acid levels.

EQUAZEN[®] PRO clinically tested benefits



Learning

Helps improve learning capabilities such as reading, writing, spelling, drawing, and language skills¹¹⁻⁴



Concentration and focus

Helps improve attention and concentration by increasing attention span and focus¹¹⁻⁴

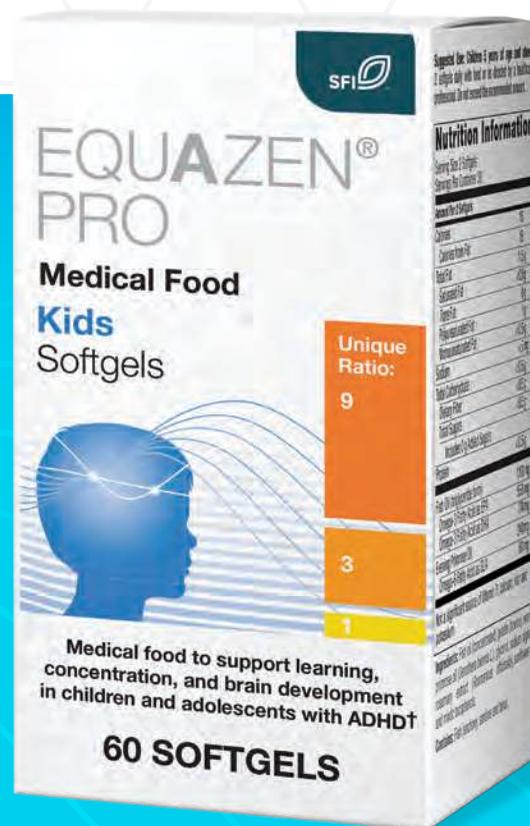


Brain health and development

Supports the brain and nervous system by providing essential fatty acids required for healthy development and function¹¹⁻⁶

Product Features

- + Based on over 15 years of research and more than 19 clinical studies, 8 of which demonstrate benefits in learning, concentration, and brain development in individuals with ADHD^{†1-7}
- + Our suppliers have been certified to Friend of the Sea[®] criteria for responsible and sustainable sourcing. The sole plant-based source of GLA in EQUAZEN[®] PRO is from evening primrose oil.
- + Can be used to provide nutritional support in combination with traditional ADHD therapy.¹⁶



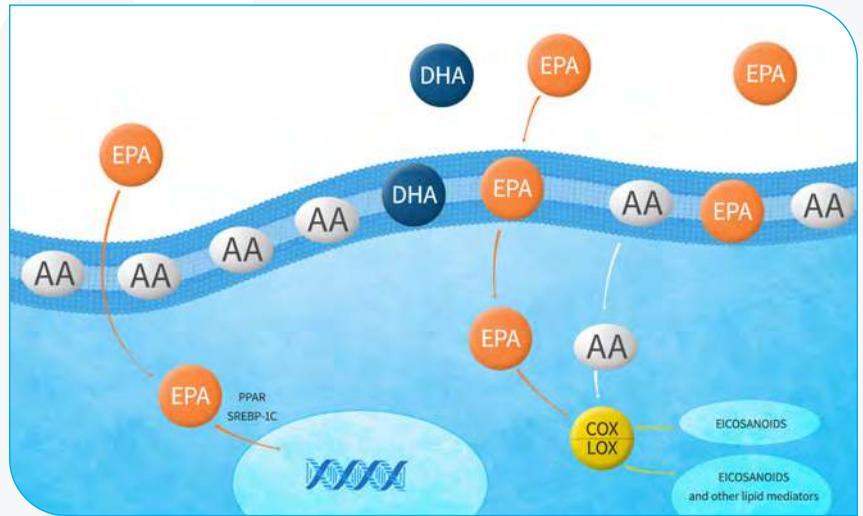
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The numerous roles of fatty acids

Essential for healthy growth and development

Approximately 50 to 60% of the adult brain is composed of lipids, of which ~35% are PUFAs.¹⁷ Docosahexaenoic acid (DHA) and arachidonic acid (AA) are found in the highest concentrations. PUFAs such as these play a crucial role in the development of the central nervous system; essential fatty acids (EFAs) and long-chain polyunsaturated fatty acids (LC-PUFAs) are the building blocks of the phospholipid membrane of all human cells. They contribute to the membrane's physiologic properties and, therefore, the functions of membrane-bound receptors, transporters, ion channels, enzymes, and other membrane-bound biochemical processes, such as those involved in signaling pathways.¹⁸ DHA in particular has important functions in neuronal homeodynamic balance, linked to its role in neurogenesis, synaptogenesis, neuronal differentiation, neurite outgrowth, and maintenance of membrane fluidity. The omega fatty acids—and their highly powerful metabolites—are also important modulators of inflammatory activity. DHA, eicosapentaenoic acid (EPA), and AA are key players, with the balance between them influencing inflammatory response within the body. Healthy inflammation modulation is paramount to healthy cognitive development and function.¹⁹ In fact, preliminary research has suggested the potential association between the pathogenesis of ADHD and inflammatory processes.²⁰ It's clear that PUFAs are vital to our health across our entire lifespan and that a lack of these essential fatty acids could result in suboptimal cognitive development and function.



Omega fatty acids and ADHD

The missing link

Increasing evidence has confirmed that many children with learning and behavioral difficulties, particularly ADHD, have deficiencies of omega-3 and omega-6 fatty acids.^{1,6,11-15} Compared to controls, on average, young adults with ADHD were shown to have a smaller fraction of essential fatty acids in the blood, with significantly smaller fractions of EPA and DHA and a significantly higher omega-6/omega-3 ratio.²¹

It appears that this deficiency could be a result of impaired fatty acid metabolism, which may be linked to the FADS-1 and FADS-2 genes found on the 11th chromosome in humans—in a genetically “hot” region for ADHD.^{6,12-15, 22, 23} These particular genes are responsible for coding the desaturase enzymes (delta-6 and delta-5) that convert EFAs (such as α -linolenic acid [ALA]) to the more highly unsaturated fatty acids (such as EPA and DHA). Different alleles of these genes can result in slightly different forms of these enzymes, some of which are less efficient than others.^{12, 24} The resulting reduction in enzyme function can affect the way omega-3 and omega-6 fatty acids are

metabolized while slowing conversion to crucial PUFAs required for healthy homeodynamic function within the central nervous system. Interestingly, several studies have demonstrated that differences related to fatty acid metabolism genotype are masked by the consumption of ALA, EPA, and/or DHA.¹⁴

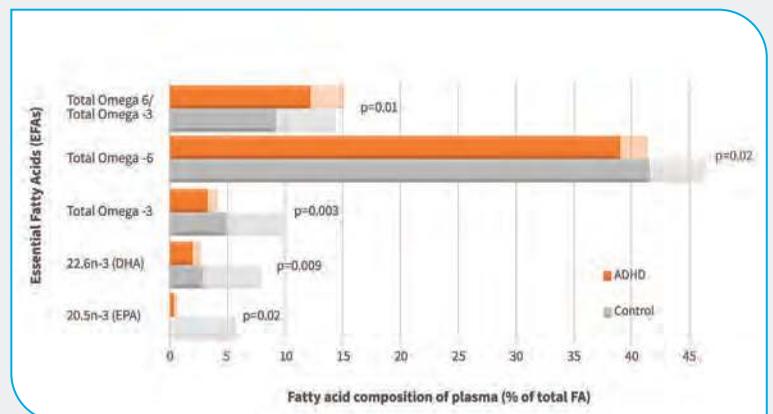


Figure 1. Lighter color demarcates standard deviation.

EFA levels in the blood: Young adults with ADHD vs. healthy controls. Adapted from Antalis, et. al. 2006.²¹

The unique EQUAZEN® PRO ratio

Supporting healthy fatty acid metabolism†

EQUAZEN® PRO contains a unique balance of omega-3 and omega-6 fatty acids in the clinically tested ratio EPA:DHA:GLA=9:3:1.¹⁻⁷ This ratio optimizes fatty acid metabolism, delivering omega fatty acids that bypass inefficient enzyme conversion steps and leverage the interrelationship between omega-3 and omega-6 biochemical pathways—promoting their inflammatory-modulating capabilities.

The incorporation of omega-6 γ -linolenic acid (GLA) in the formulation plays a crucial role in supporting a proper inflammatory response and is key to healthy omega-6/omega-3 balance.²⁵ GLA is rarely present in the diet, and synthesis (from dietary linoleic acid [LA]) by the body is inefficient.²⁶ Evening primrose oil represents an excellent, plant-based source of GLA, which, when supplemented in the diet, is rapidly converted to dihomo- γ -linolenic acid (DGLA). DGLA is found to support a proper inflammatory response by balancing the production of metabolites that come from AA (arachidonic acid) by competing for the same COX and LOX enzymes, instead producing prostaglandins (PGE1) and thromboxane A1.

In human studies, the addition of omega-3 EPA from fish oil, in a balanced ratio to GLA, has been shown to further support a proper inflammatory response by balancing the production of metabolites that come from AA and maintaining the supportive capabilities of EPA, DHA, and GLA.^{25,27} Conversely, omega-3 fatty acids alone increase EPA and DHA but at the expense of lowering levels of the desirable omega-6, DGLA.²⁷

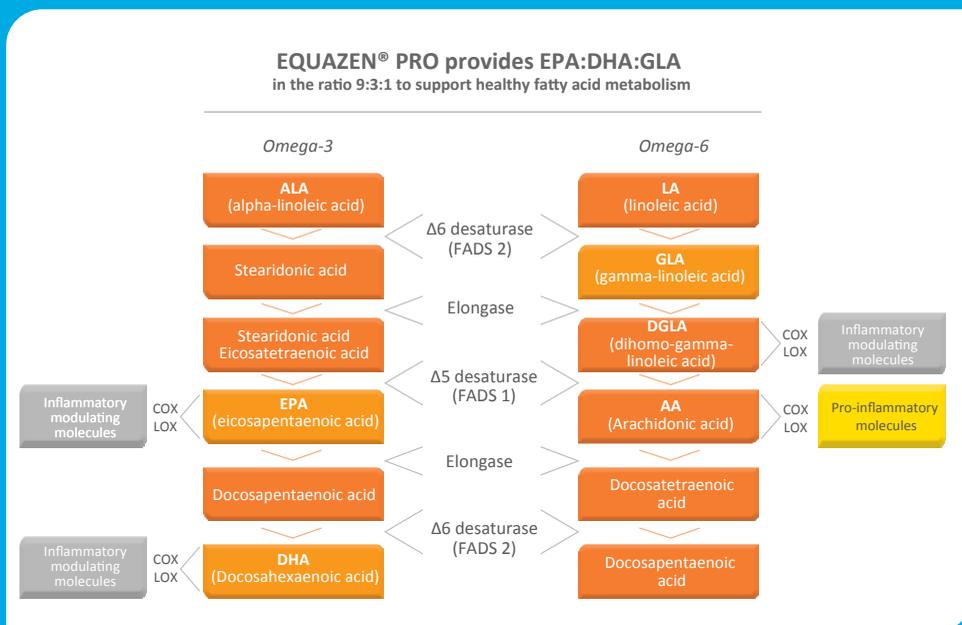


Figure 2. The metabolism of omega-3 and omega-6 fatty acids, including the genes that code for associated enzymes in parentheses. Adapted from Roke 2017.²⁸

Clinical evidence for EQUAZEN® PRO

The most researched omega fatty acid formulation for ADHD†

The clinically tested ratio in EQUAZEN® PRO has been extensively researched in more than 19 clinical trials by international teams of investigators, including experts in the field of ADHD. In addition to benefits in learning, concentration, and brain health for children and adolescents with ADHD,¹⁻⁷ EQUAZEN® PRO has also been clinically shown to:



Support children's attention control, vocabulary, and immediate memory recall^{†4,7}



Improve academic performance^{†1-4}



Improve inattentive behavior^{†1-7}



Support balanced mood^{†1-4}

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Formula

EQUAZEN® PRO

About the ingredients

In EQUAZEN® PRO, the fish oils from cold-water fish—anchovies, sardines, and tuna found in the Pacific, Atlantic, and Indian Oceans—are harnessed as a natural source of EPA and DHA. The fish oils are extracted using PureMax® technology, which removes contaminants and minimizes the presence of oxidative impurities, before undergoing rigorous testing for environmental pollutants and toxins. Our suppliers have been certified to Friend of the Sea® criteria for responsible and sustainable sourcing. The sole source of GLA in EQUAZEN® PRO is evening primrose oil, which represents an excellent, plant-based source.

Nutrition Information

Amount Per 2 Softgels

Fish Oil (triglyceride form)	1,100 mg
Omega-3 Fatty Acid as EPA	558 mg
Omega-3 Fatty Acid as DHA	174 mg
Evening Primrose Oil	240 mg
Omega-6 Fatty Acid as GLA	60 mg

Ingredients: Fish oil (concentrated), gelatin (bovine), evening primrose oil (*Oenothera biennis L.*), glycerol, sodium alginate, rosemary extract (*Rosmarinus officinalis*), sunflower oil, and mixed tocopherols.

Contains: Fish (anchovy, sardine, and tuna).

Free of the following common allergens: milk/casein, eggs, shellfish, tree nuts, peanuts, wheat, and gluten.

Non-GMO

Full nutrition information on our website

Suitable for use in children aged 5 years and above

Suggested Use:

Children 5+ years of age: 2 softgels daily with food or as directed by a healthcare professional. Do not exceed the recommended amount.

Pregnancy and lactation

EQUAZEN® PRO is not intended for use by pregnant and breastfeeding women.

Patented Anti-reflux technology

EQUAZEN® PRO uses a specific enteric coating technology that reduces the possibility of fishy taste or reflux.

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- Sinn N, Bryan J, Wilson C. *Prostaglandins Leukot Essent Fatty Acids*. 2008;78(4-5):311-326.
- Centers for Disease Control and Prevention. Attention-Deficit / Hyperactivity Disorder (ADHD). Available at: <https://www.cdc.gov/ncbddd/adhd/data.html>. Accessed September 2020.
- Goldman LS, et al. *JAMA*. 1998;279:1100-1107.
- Spencer T, et al. *Am J Psychiatry*. 1998;155:693-5.
- Banaschewski T, et al. *Dtsch Arztebl Int*. 2017;114:149-59.
- Brookes KJ, et al. *Biol Psychiatry*. 2006;60(10):1053-1061.
- Lattka E, et al. *Br J Nutr*. 2013;109(7):1196-1210.
- Merino DM, Ma DW, Mutch DM. *Lipids Health Dis*. 2010;9:63.
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- Assisi A, et al. *Int Clin Pharmacol*. 2006;21:319-336.
- Muskiet FAJ. Pathophysiology and Evolutionary Aspects of Dietary Fats and Long-Chain Polyunsaturated Fatty Acids across the Life Cycle. In: Montmayeur JP, le Coutre J, eds. *Fat Detection: Taste, Texture, and Post Ingestive Effects*. Boca Raton (FL): CRC Press/Taylor & Francis; 2010.
- Lay S, et al. *Pharmacol Rev*. 2018;70:12-28 (S18-0039).
- Anand D, et al. *Front Psychiatry*. 2017;8:228.
- Antalis CJ, et al. *Prost Leukot Essent Fatty Acids*. 2006;75(4-5):299-308.
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- Laidlaw M, et al. *Am J Clin Nutr*. 77:37-42, 2003.
- Roke K. *Appl Physiol Nutr Me*. 2017;42: 10.1139/apnm-2016-0700.

Parent Assessment Tool for Attention Concerns

For the following assessment, please read through each question and rate your responses on a scale from 1 to 5. When all questions are complete, calculate your score and compare your total points with the assessment summary provided at the end of this questionnaire.

Rating Scale

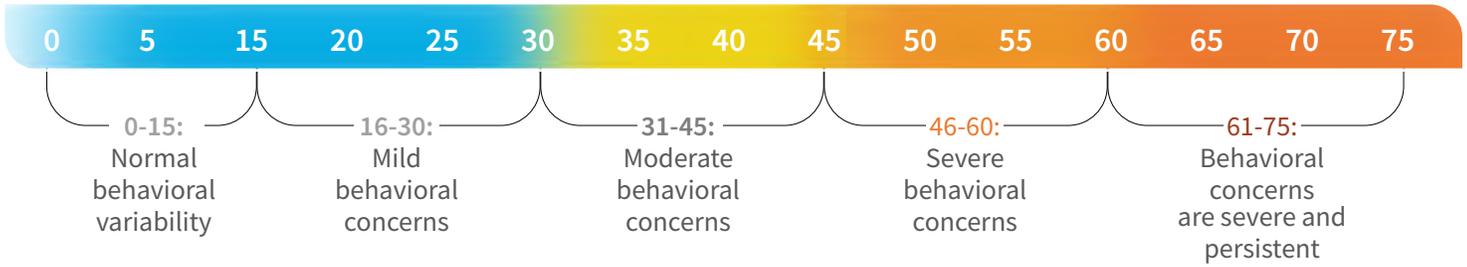
1	2	3	4	5
Never occurs	Occurs infrequently, maybe once a day	Occurs daily, regardless of setting	Occurs multiple times a day	Always occurs/It is the child's primary behavior, regardless of setting

1. It is very difficult for my child to stay focused on homework or other tasks. Score: _____
2. My child often fails to pay close attention to details, even when directed to do so. Score: _____
3. My child is unable to remain quiet, even when it is situationally appropriate or when asked to do so. Score: _____
4. My child has difficulty waiting patiently to take their turn. They interrupt or grab objects from other children. Score: _____
5. My child will interrupt questions with an answer/reply before the question is finished. Score: _____
6. My child's troublesome behaviors occur in more than one setting (e.g., home, school, extracurricular activities, etc.). Score: _____
7. My child has trouble socializing and building relationships with their peers because of their behavior. Score: _____
8. My child seems to always be daydreaming. Score: _____
9. My child does not stop daydreaming, even when spoken to directly. Score: _____
10. My child cannot remain organized, even with consistent support. Score: _____
11. My child switches tasks frequently without completing any of them. Score: _____
12. My child cannot sit still and often fidgets in their chair. Score: _____
13. My child often loses items like homework or personal belongings. Score: _____
14. My child is thrown off task by the smallest distraction, such as a bird or the sound of an airplane. Score: _____
15. My child cannot recall what was just said to them, even if they seemed to be paying attention. Score: _____

Total points (out of 75): _____

Behavioral Concern Scale

Based on your total score out of 75



If you have calculated your score and your accumulated total has reached 30 points or more, it may be beneficial to consult with your doctor. Your healthcare practitioner can offer valuable insights into the common symptoms associated with ADD and ADHD, as well as the treatment options that might best suit your child's needs.



This questionnaire is intended to support parents who wish to explore the possible presence and/or severity of attention concerns in their children. It is not intended to be used as a diagnostic tool. If you find that your child's behavior strongly correlates with the situations described in this assessment, consult with a physician and a licensed mental health practitioner. An accurate diagnosis can only be made through clinical evaluation.

ADHD SUPPORT PROTOCOL

Introduction

Attention-deficit/hyperactivity disorder (ADHD) is a globally recognized neurobiological condition that impacts a wide variety of social, emotional, and cognitive developmental processes in those affected. There are several factors that can contribute to ADHD and how it manifests—all of which are unique to each individual. Because of this variability, it's necessary to consult with a healthcare practitioner who can provide tailored treatment for a personalized approach to ADHD.

Nutritional Considerations

Check the label

Diet modification plays an essential role in the management of ADHD. Part of this modification might include lowering the intake of packaged foods, as these often contain inflammation-promoting ingredients that can negatively stimulate the nervous system while also potentially increasing hyperactive behavior in some children. Be sure to carefully read food labels, and limit ingredients like:

SUGAR: especially high-fructose corn syrup and other sugars found in candy, desserts, sodas, and juice.

ARTIFICIAL SWEETENERS: such as sucralose, aspartame, neotame, saccharin, and acesulfame potassium.

REFINED CARBOHYDRATES: including those found in candy, bread, pasta, pastries, some cereals, cookies, cakes, sugary soft drinks, and all processed foods that contain added sugar or flour. These items are often stripped of their fiber contents, which results in raised blood sugar levels and reduced inflammation modulation.

CONVENTIONAL DAIRY: opt instead for pasture-raised dairy, goat milk dairy products, or dairy alternatives if your child has a food allergy or sensitivity.

FOOD DYES AND COLORS: be wary of any food item that contains bright, unnatural-looking colors. For example, Red #40 (Allura Red), Red #3 (erythrosine), Blue #1 (Brilliant Blue), Blue #2 (Indigo Carmine), Yellow #5 (tartrazine), Yellow #6 (Sunset Yellow), and Green #3 (Fast Green) are all artificial colors.

FOOD ADDITIVES: such as MSG, BHT (butylated hydroxytoluene), BHA, and yeast extract.

ADDED NITRATES/NITRITES: like those found in deli or processed meats and canned foods.

PRESERVATIVES: such as sodium benzoate, EDTA, BHT, and BHA.

Assess for potential food allergies and sensitivities

Diets that restrict—or, even better, eliminate—possible food allergens and sensitivities may help to improve behavior in some children with ADHD. There are many different ways that your doctor can diagnose potential food challenges—for example: blood antibody tests, which are more accurate for food sensitivities than skin prick tests. Be sure to ask your doctor which assessment option is best for your child.

Eat lots of nutrient-dense foods

Focus on consuming whole, unprocessed foods and foods that are high in B vitamins, such as pasture-raised animal products, wild-caught salmon, and leafy green vegetables. Don't forget the whole grains and healthy fats—these staples serve as essential fuel for hard-working, growing brains.

Regulate blood sugar

To improve blood sugar control, make sure the first meal your child consumes each day contains around 10 grams of protein. Establishing healthy grazing patterns—eating every 3 hours or so—between mealtimes can also lessen potential blood sugar swings, which typically result in irritability and *can* result in undesirable behavior. As part of your child's daily diet, include a combination of all three macronutrients: a preferred carbohydrate (whole grains, fresh fruit, starchy vegetables) + a preferred protein (lean meat, poultry, fish, nuts, nut butters, legumes, eggs) + a preferred fat (plant sources: oils, avocado, seeds).

General Notice & Disclaimer: This information, is for general informational purposes only and should not replace the advice of a healthcare practitioner. The information provided herein is based on a review of current existing research; SFI® Health does not accept responsibility for the accuracy of the information itself or the consequences from the use or misuse of the information.

Promote healthy detox

We are what we eat, digest, absorb, and turn into energy! Incorporating healthy foods into the diet is crucial, but so is the body's ability to detoxify and get rid of wastes effectively. Staying hydrated and consuming adequate amounts of fiber

can help to flush out excitatory waste products from the body while also encouraging natural, gentle detoxification. Fiber additionally promotes feelings of fullness, improves blood sugar control, and feeds the beneficial bacteria in your gut.

Lifestyle Recommendations

Look into environmental contributors

The environmental pollutants and nervous system-disrupting chemicals present in our homes, body products, food ingredients, and more may all contribute to disorders like ADHD—and to a substantial degree. Try to reduce exposure to these unfriendly chemicals by becoming more mindful about the products you and your family use daily. And, be sure to do your research. A couple of helpful resources to get you started include EWG's Skin Deep® and Guide to Healthy Cleaning.

Establish sleep routines for sweet dreams

There are any number of benefits that can result from a routine that ensures the quality and quantity of proper sleep. Practice better sleep hygiene by sticking to a regular sleep schedule, ending screen time 60 to 90 minutes before bed, and keeping the bedroom cool, completely dark, and free of electronics when it's bedtime.

Enjoy the outdoors

Rambling outside and enjoying nature can provide a wealth of positive impacts, especially for kids. The more time they spend in a natural setting, the greater their ability to focus and concentrate. Engaging in activities like camping, fishing, and even just frolicking in the woods can help children to recover from symptoms like attention fatigue while also improving their patience and impulse control. So, whether it's taking a walk in the park, sitting underneath a tree, or running barefoot in the grass, try to spend at least 20 minutes each day—together and outdoors—amongst greenery and nature.

Make time for movement and play

Getting the body up and moving primes the brain for learning. In children with ADHD, exercise and play can help to improve attention, sharpen social skills, and stimulate the production of mood-boosting neurotransmitters. Harness these brain-enhancing effects by making time for joyful movement every day: take the dog for an early morning walk, turn on some music and have a dance party, or ride your bike to school.

When it's chilly outside, incorporate indoor movement, such as jumping rope or bouncing on an exercise ball. However you choose to move, keep it fun and make it a daily, happy habit.

Fidget-friendly learning

Some children and adolescents with ADHD are able to learn and concentrate more easily when they fidget. Some do so in order to help themselves focus, while others shuffle to keep their bodies and thoughts more organized. Regardless of the reason behind the fidgets, these movements increase vestibular sensory input, which—along with supporting and maintaining balance—helps them to stay alert and focused. A few ideas for incorporating fidget-friendly movement while learning include:

SENSORY SEATS: Sensory chairs and fidget cushions are designed to help children remain attentive and focused while in the classroom, providing kids with a tool to keep themselves engaged and alert. There are a number of options to consider when it comes to fidget-friendly seating. Give some of these a try: wobble cushions, fidget cushions, wobble stools, ball chairs, or one-legged chairs.

SQUEEZE BALLS: Silly Putty, Play-Doh, squishy balls, stress balls, hand exercisers ... there are dozens of objects that can be used as quiet fidgeting devices. You can also use items around the house for a fun—and easy—alternative to store-bought products: fill up balloons with different items (seeds, rice, flour, etc.). These makeshift squeeze balls are perfect for squishing.

DOODLING: If your child is scrawling in notebook margins during class, don't fret. Doodling helps countless students to focus, not just those who have ADHD. Many also benefit from drawing during story time or lessons.

CHAIR LEG BANDS: An excellent way to focus the fidgets is to facilitate controlled movement. Tie a large rubber band or yoga band across the front legs of a chair for students to push or pull against with their legs. Caution: This could be a tripping hazard for younger children.

Medical Food Support

EQUAZEN® PRO†

Recommended serving

Children 5+ years of age: 2 softgels daily with food or as directed by a healthcare professional. Do not exceed the recommended amount.

Many children with ADHD may have decreased serum levels of healthy fatty acids, which can adversely impact the regulation of crucial signaling molecules and inflammatory pathways in the brain.¹ For those attempting to overcome these deficiencies and support healthy nervous system function, ensuring the diet contains the optimal balance of omega-3 and omega-6 fatty acids has been shown to boost levels of these healthy fats, improving attention, concentration, and learning capabilities in those with ADHD, while also supporting the healthy development and function of the brain and nervous system.

EQUAZEN® PRO

*has been clinically shown to improve:*³⁻⁷



Learning

Helps improve learning capabilities such as reading, writing, spelling, drawing, and language skills¹⁻⁴



Concentration and focus

Helps improve attention and concentration by increasing attention span and focus¹⁻⁴



Brain health and development

Supports the brain and nervous system by providing essential fatty acids required for healthy development and function¹⁻⁶



†EQUAZEN® PRO is a medical food designed to support learning, concentration, and brain development in children/adolescents with ADHD who have been determined by medical evaluation to require the nutritional management of polyunsaturated fatty acid deficiencies that cannot be achieved by modification of normal diet alone.

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For 50 years, Klaire Labs® has been committed to providing premium products designed to support healthcare practitioners as they promote a better well-being for their patients.

References

1. Antalis CJ, et al. *Prost Leukat Essent Fatty Acids*. 2006;75(4-5):299-308.
2. Richardson AJ, Montgomery P. *Paediatrics*. 2005;115:1360-1366.
3. Sinn N, Bryan J. *J Dev Behav Pediatr*. 2007;28(2):82-91.
4. Portwood MM. *Nutr Health*. 2006;18(3):233-247.
5. Johnson M, et al. *J Atten Disord*. 2009;12(5):394-401.
6. Johnson M, et al. *J Atten Disord*. 2012;4(4):199-204.
7. Chang JPC, et al. *Neuropsychopharmacol*. 2018;43:534-545.

ADHD GUT-BRAIN AXIS PROTOCOL

Introduction

In the early 20th century, a number of isolated studies discovered a relationship between the diet and mental health. Now, over one hundred years later, it's increasingly accepted that the bacteria inside our bodies could serve as a crucial link between the food we eat and how we feel. There is a very close, very remarkable connection between the gut and the brain—it's known as the gut-brain axis. This bidirectional communication network is so correlated that when something is operating unfavorably on one end, it's likely that the other end isn't functioning well either.

There are many factors that can contribute to ADHD via the gut-brain axis—all of which are unique to each individual. As a result, it's important to consult with a healthcare practitioner who can provide tailored treatment that addresses ADHD and the gut-brain connection accordingly.

Nutritional Considerations

Chew food SLOWLY

We've all heard the adage: "You are what you eat." But, actually, we are what we absorb. Nutrient digestion and absorption occur most efficiently when our nervous systems are calm. To maximize healthy digestion, find ways to encourage your child to adopt a relaxed state—absent distractions (e.g., TV, internet, phones)—while eating. Urge them to take small bites and to thoroughly chew their food.

Identify inflammatory foods

Inflammation-promoting foods can put additional stress on the body. The consequences of such stress manifest in a variety of ways, including gastrointestinal inflammation and mental and emotional difficulties. For children with ADHD, diet modification plays an essential role in modulating inflammatory responses and supporting the gut-brain axis. Identify and restrict—even better, eliminate—possible food intolerances and sensitivities from the diet. Be sure to check the labels of packaged foods; these often contain inflammation-promoting ingredients (e.g., sugar, artificial sweeteners, colorings, flavorings) that can negatively stimulate the nervous system and increase hyperactive behavior in some children.

Focus on whole, nutrient-rich foods

While the process might be challenging, transitioning children with ADHD into a diet rich in whole, unprocessed foods—one that includes plenty of fruits, vegetables, and nutrient-rich proteins and fats—can encourage dramatic improvements in behavior and focus. In fact, adopting this sort of diet is probably the most important component of both establishing and maintaining a healthy gut-brain axis. These foods support healthy inflammation modulation and a richer, more diverse intestinal microbial community.

Mind your gut

The gut-brain connection is powerful! When we have a good balance of healthy bacteria in the gastrointestinal system, the health of our brains is positively impacted. Probiotics, and foods rich in prebiotic fiber that feed friendly gut flora, can help crowd out unfriendly flora. Focus on gut health-promoting foods and include fermented options—kombucha, tempeh, yogurt—in the diet, as well as fiber-rich options, like nuts, whole grains, legumes, asparagus, bananas, carrots, chicory root, coconut meat and flour, dandelion greens, flax and chia seeds, garlic, Jerusalem artichoke, jicama, leeks, onions, radishes, tomatoes, and yams.

Lifestyle Recommendations

Avoid or reduce synthetic scents and chemicals

The intestinal microbiome produces a majority of the “feel-good,” calming neurotransmitters found in the body, including serotonin and dopamine. The production of these neurotransmitters, which are essential to healthy nervous system function, can be impacted—both directly through the central nervous system and indirectly by altering the gut microbiota—by the endocrine-disrupting properties of synthetic chemicals. Such chemicals can be found in some non-stick cooking pans, carpets, drapes, furniture, bedding, plastics, and personal care products. Synthetic fragrances in dryer sheets, all nonorganic air fresheners, and dish and laundry detergents also provide easy routes of exposure via inhalation. Be sure to check labels for synthetic ingredients, opt for unscented detergents, and discover new sources of scent satisfaction, like essential oil diffusers. And, don’t forget to do your research. The website EWG.org is a helpful resource that provides guidance on unfriendly chemicals found within specific consumer products.

Screen time before bedtime?

Proper sleep and rest are crucial for everyone, but especially individuals with ADHD. Too little sleep puts increased stress on the adrenal glands, which—over time—can create microbiome imbalances that affect mood through the gut-brain connection. Blue light from electronic devices—TVs, computers, tablets, and cell phone screens—as well as light exposure in general, can reduce the brain’s ability to produce melatonin, the hormone that helps the body fall asleep and stay asleep. Cut screen time in the evenings, and turn off electronic devices at least 60 to 90 minutes before going to bed. Use this hour or so to practice activities like meditation, stretching, or listening to quiet music.

Movement and play (preferably in nature)

Persistent physical and emotional stress has been shown to negatively impact the intestinal microbiome by decreasing diversity among friendly bacteria. The result is an increase in numbers of unfriendly bacteria and a consequent decrease in mood-enhancing serotonin levels. Lower levels of serotonin

are associated with many behavioral and emotional disorders like ADHD. But, getting the body up and moving boosts brain activity. In individuals with ADHD, exercise and play can help to improve attention and sharpen social skills while also stimulating the production of serotonin and other mood-boosting neurotransmitters. To get those brain-enhancing effects, make time for joyful movement every day: take the dog for an early morning walk, turn on some music and have a dance party, ride a bike, or run around barefoot in the grass. Indeed, walking just 20 minutes a day in a natural environment has been shown to improve focus in those with ADHD.

Make it mindful

Children with attention-deficit/hyperactivity (ADHD or ADD) often experience two persistent, daily challenges: attention and self-regulation. As such, certain training activities known to promote both attention and self-control can serve as invaluable—and incredibly powerful—natural supports for those with ADHD. Mindfulness practices—such as meditation, tai chi, and yoga—may encourage your child’s inner coping skills by enhancing their ability to self-observe. Becoming more connected to, and aware of, their emotional state may also help them to respond more positively to stressful or distracting experiences. And, overall, mindfulness practices reduce stress and support healthy microbiome communities in the gut, both of which have been shown to benefit those with ADD/ADHD.

Try EEG biofeedback

Electroencephalographic (EEG) biofeedback—a type of neurotherapy that measures brain waves—is a promising therapy for individuals with ADHD. During a typical session, children play a special video game and are given a task to concentrate on, such as “keep the plane flying.” The plane will start to dive, or the screen will go dark, if they become distracted. Over time, such therapies instruct children in new focusing techniques and, eventually, help them to identify and correct their attention, both in the program and in daily interactions.

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Helps improve learning capabilities such as reading, writing, spelling, drawing, and language skills^{†1-4}



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Helps improve attention and concentration by increasing attention span and focus^{†1-4}



Brain health and development

Supports the brain and nervous system by providing essential fatty acids required for healthy development and function^{†1-6}



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References

1. Antalis CJ, et al. *Prost Leukot Essent Fatty Acids*. 2006;75(4-5):299-308.
2. Costantini L, Molinari R, Farinon B, Merendino N. *Int J Mol Sci*. 2017;18(12):2645.
3. Richardson AJ, Montgomery P. *Paediatrics*. 2005;115:1360-1366.
4. Sinn N, Bryan J. *J Dev Behav Pediatr*. 2007;28(2):82-91.
5. Portwood MM. *Nutr Health*. 2006;18(3):233-247.
6. Johnson M, et al. *J Atten Disord*. 2009;12(5):394-401.
7. Johnson M, et al. *J Atten Disord*. 2012;4(4):199-204.
8. Chang JPC, et al. *Neuropsychopharmacol*. 2018;43:534-545.