AD(H)D
Addressing the underlying causes of AD(H)D
“In children and adults suffering from AD(H)D, we have found profound nutrient deficiencies and biochemical abnormalities. The science is now available to explore these unique metabolic profiles and begin to understand our individualized biochemical fingerprints. Treating the underlying biochemistry addresses the core of the problem. I believe this is preferable to only providing temporary relief of symptoms through medication.”

-Dr. James Greenblatt, Director of Comprehensive Psychiatric Resources, Inc.

What is AD(H)D?
AD(H)D is a neurobehavioral developmental disorder that typically presents itself during childhood and is characterized by a persistent pattern of inattention and/or hyperactivity, as well as forgetfulness, poor impulse control, and distractibility. About 60% of children diagnosed with AD(H)D retain the condition as adults. Many cases may be caused by trauma, toxic exposure, food allergies or intolerances, or nutritional deficiencies.

Without treatment, AD(H)D can lead to profound distress at school, work, or home, resulting in academic or professional failures, poor social skills, low-self-esteem, depression, anti-social behaviors, or substance abuse.

AD(H)D is considered to be a persistent and chronic condition for which biomedical intervention can be helpful. Once the biological causes of AD(H)D are addressed, it may be possible to reduce or eliminate drug therapy.

Address the Underlying Causes of AD(H)D
Many children with AD(H)D have one or more of the following nutritional or metabolic imbalances: mineral and vitamin deficiencies, toxic metal accumulation, improper diet, hidden infections, chronic yeast overgrowth, or food sensitivities.

Methods of treatment should involve a combination of biomedical treatments, nutritional supplementation, and diet modification. This treatment can be implemented in conjunction with behavior modification, medication, lifestyle change, and counseling to help the patient achieve maximum potential.
Organic Acids
Organic Acids testing provides an accurate evaluation of intestinal yeast and bacteria metabolites. Abnormally high levels of yeast (Candida) or bacteria can cause or worsen behavior disorders, hyperactivity, fatigue, and immune function. Many people with chronic illnesses and neurological disorders often excrete several abnormal organic acids.

Metals Hair
Lead, a common toxic metal that is high in children with AD(H)D, can cause cognitive impairment, decreased IQ scores, and impaired attention. A study on the relationship between hair lead levels of children and their attention-deficit behaviors in the classroom revealed negative ratings on the abbreviated Boston Teacher’s Rating Scale from children with high lead. There was no apparent ‘safe’ threshold for lead.[1]

Copper / Zinc
Copper imbalance is often found in children with AD(H)D. Copper interferes with zinc metabolism, affects thyroid activity, and enhances neurotransmitters that stimulate brain activity. Copper is also an important substance to control yeast overgrowth within the body. Effects of excess copper include: mood swings, panic attacks, anxiety, hyperactivity, anti-social behavior, and depression.

Zinc Deficiency
One of zinc’s many functions is mood stabilizing. Children with AD(H)D have significantly lower zinc levels than those without. Low zinc values may result in depressed production of melatonin and serotonin in the brain, resulting in some of the symptoms of AD(H)D.[2]

Essential Fatty Acids
Essential fatty acids (EFAs) are required elements of every membrane in the body, including those in the brain. They serve as critical components in the biosynthesis of eicosanoids, chemicals that affect the working of every cell in the body. Some signs of an EFA deficiency include excessive thirst, allergic responses to common foods, and skin conditions such as eczema, clinical signs that tend to be common in AD(H)D children. Children with lower omega-3 fatty acid levels are more likely to have learning problems and lower overall academic skills and math skills than children with higher fatty acid values.[3]

IgG Food Allergy w/ Candida
Individuals with neurological, gastrointestinal, and behavioral disorders often suffer from IgG food sensitivities (unlike the traditional rash and swelling symptoms of IgE allergies). IgG reactions to foods subtly alter brain chemistry and behavior. IgG symptoms may occur hours or days after the offending food has been eaten.

Two-thirds of children diagnosed with AD(H)D have unrecognized food allergies that generate most, if not all, of their symptoms.[4] The 93 foods tested in the IgG Food Allergy Test w/ Candida can identify problem foods so they can be eliminated from the patient’s diet.

References:

Further research studies on the effects of nutritional factors in mental health can be found online at www.IMMH.org.
The Great Plains Laboratory, Inc. is dedicated to assisting healthcare practitioners make a difference by helping children, adults, and families achieve their maximum potential through quality laboratory testing. Our laboratory provides the most reliable, comprehensive, and understandable scientific results, using the latest technology and proven techniques.

### Recommended Tests for AD(H)D:

- IgG Food Allergy Test *w/ Candida*
- Organic Acids Test
- Copper / Zinc Profile
- Advanced Cholesterol Profile
- Amino Acids Urine Test
- Comprehensive Fatty Acids Test
- Comprehensive Stool Analysis
- Ferritin Test
- Gluten / Casein Peptides Test
- Metals Hair Test
- Metals Red Blood Cell Test
- Streptococcus Antibodies Profile

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