

Helpful Tests For Mood, Behavior & Learning Challenges in Kids

Tier 1 Blood Tests To Ask Your Doctor About

Vitamin D	<p>We have vitamin D receptors all over the body. Vitamin D is a critical nutrient for proper neurotransmitter function, immune function, and low level have been associated with depression, ADHD and even schizophrenia. It also helps your body absorb calcium and phosphorus and is essential for proper growth and healthy teeth and bones.</p> <p>Ask for: 25-Hydroxy D</p> <p>Vitamin D is a fat soluble vitamin, meaning it can not be absorbed without sufficient fat. So before getting this tested, ensure your child is eating enough fat. If vitamin D levels are low you can easily supplement, but choose a supplement that also contains K2.</p> <p><i>If your doctor won't run this, there is a marker for it on the Organic Acid Test (see below)</i></p>
Iron	<p>Low iron has been associated with anxiety, depression, irritability, poor concentration, fatigue, restlessness, poor immune function, slow growth. Low iron is also often found in ASD and ADHD and learning disorders. Picky eaters are often low in iron, as are vegetarians/vegans.</p> <p>Ask for either Ferritin or a Full Anemia Panel</p>
B12 or Methylmalonic Acid (MMA)	<p>B12 is critical for our nervous system function. It's especially important to ask for this if you know you have an MTHFR gene mutation in your family or if your child is vegetarian/vegan. Also ask for this if your child is tired all the time, has trouble regulating their energy (big up-down swings) or is depressed, hyperactive, anxious, can't focus.</p> <p>Typically your doctor will test the level of B12 in the blood (serum B12). That's good to know, but it doesn't tell you if your child is <i>using</i> that B12. If your doctor is open to it, a better test is for <i>Methylmalonic Acid</i>. This will tell you how well they're using their B12.</p> <p><i>If you can't get your doctor to check MMA, have them check serum B12 and check MMA through the Organic Acid Test.</i></p>
Magnesium	<p>Magnesium is a 'nice to know' marker, not a need-to-know marker. Magnesium is involved in over 300 chemical reactions in the body including neurotransmitter function. It's also involved in immune function, heart function, energy production and bone health.</p> <p>Ask for: RBC magnesium</p>

Tier 2 Tests - primary doctors can run these & they're helpful for digging deeper
Some doctors will be open to these, others won't because they don't understand the connection. It depends on whether your doctor takes a functional approach to symptoms.

Plasma or serum zinc	<p>Zinc is a critical mineral involved in the creation of neurotransmitters and hormones. It's also involved in our taste, stomach acid and enzyme creation. Low zinc is common in ADHD, depression, picky eating, anxiety, anorexia. Plasma zinc level is more helpful to know than serum zinc, but if all you can get is serum that's ok. Zinc supplements should be stopped 24 hrs before this test is done</p>
Serum copper	<p>Zinc and copper work together antagonistically; when zinc is high, copper tends to be low and visa versa. It's helpful to know the ratio of the two. High copper has been associated with hyperactivity, anxiety, ADHD, sensory sensitivity (tags, fabrics etc), emotional meltdowns.</p> <p><i>If your doctor does not want to do the zinc and copper tests you can find out the ratio through hair analysis here or through a blood test here</i></p>
Celiac	<p>We now know that for every Celiac who has a digestive symptom (gas, bloat, intestinal pain) there are eight whose symptoms are not digestive - they are pain, skin and neurological symptoms. Celiac disease is an autoimmune condition triggered by gluten, and when you have an autoimmune condition you are very likely to develop another. So knowing about it early can help you take steps to stop the cascade before it gets out of control.</p> <p>Ask for genetic testing for the HLA-DQ2 and HLA-DQ8 genes and, if your child is eating gluten, you can ask for TTG antibodies (there are unlikely to be antibodies if your child is not eating gluten regularly).</p> <p><i>If your doctor won't run this you can try to get a Wheat Zoomer test from Vibrant Wellness (though you'll need an integrative doctor to order it for you)</i></p>
Total Cholesterol	<p>Cholesterol is critical for the brain and for proper cellular function. Low total cholesterol has been associated with irritability, rage and mood instability. If it's chronically low, there is often a genetic reason. Reports of erratic behavior when cholesterol falls is below 140 have been reported. More on cholesterol in this review study</p>
Thyroid Panel	<p>A poorly functioning thyroid has been associated with depression, anxiety, panic, fatigue, disturbed sleep, mood swings, poor memory, weight gain and more. It is an often overlooked contributor to learning and behavior challenges and ADHD.</p> <p>Ask for: TSH, T4, T3, TPO Ab, TGB Ab, TBG, Free T4 and Free T3</p> <p><i>Some doctors will only do TSH to start. That's a good start but some say that your thyroid needs to have a significant amount of dysfunction before the TSH goes out of lab ranges; you can have a perfectly normal TSH level and have autoimmune thyroiditis, so even if TSH is ok there's still some digging that can be done.</i></p>

Whole Blood Histamine	<p>This test is based on the work of Dr William Walsh, who has expanded on the earlier work of biochemist, Dr Carl Pfeiffer. The test gives us insight into how well your child is able to methylate (a critical chemical process in the body). Since histamine needs to be ‘methylated’ to be broken down, if histamine is high it’s very likely methylation is underactive. If histamine is low, it’s likely methylation is overactive. Since there are a number of nutrients involved in the process of methylation, we can then explore nutritional supplements.</p> <p>This is a helpful test to run if your child has rages, known or suspected MTHFR genetic variant, panic attacks, anxiety, ADHD, OCD, perfectionist tendencies, schizophrenia, had a bad reaction to psych medication or stimulants.</p> <p>This test can be accessed here: https://www.dhalab.com/shop/ but it requires a blood draw. Another way you can get a sense of this is to put your child on antihistamines for a while and watch their mood and behavior. This is not definitive, but it can give some clues.</p>
Kryptopyrrole	<p>Pyroluria is a genetic condition in which the body over-produces a chemical called <i>Kryptopyrrole</i>, especially when under stress. This test looks for excess kryptopyrroles in the urine. Since they are very delicate, this test is notorious for false negatives, but the most reliable lab for it is this one.</p> <p>Pyroluria can contribute to severe deficiency in zinc, B6 and certain fatty acids which, if not supplemented, can contribute to irritability, anger, social anxiety, temper control problems, sensitivity to bright light and loud noise, poor memory, extreme mood swings, depression, phobias, symptoms of autism.</p> <p>Find out more about Pyroluria in this article.</p>

Other Tests:
Your primary MD will probably not know about these tests or be able to interpret them for you. You’ll need a doctor who takes a functional approach to symptoms. These have become foundational screening tests for many integrative doctors.

GI MAP	<p>This is a very comprehensive stool analysis that explores gut health. It covers parasites, infection, bacterial imbalance, fungi and more to determine what could be impacting the gut-brain connection. Learn more here. You’ll need a doctor to order this for you and it needs to be one who is trained in how to read it. You can do the stool collection at home.</p>
Organic Acid Test (OAT)	<p>This is a urine test helpful to screen for mould exposure, fungal and bacterial overgrowth, some nutritional deficiencies, metabolism, neurotransmitter function. Learn more here. You can order this test yourself but you need to bring it to someone who is trained to interpret it.</p>
Vibrant Wellness Zoomers	<p>This is probably the most reliable test for food sensitivity and autoantibodies to food. It requires a blood draw and you will need a doctor to order this for you. Learn more here.</p>

Remember... nothing replaces the foundation of good nutrition you’ve already set in place so don’t get too distracted by test options. Establish a good diet and including the tier 1 fundamental supplements first. If symptoms persist, then consider some of these tests for more information.