YOUR COMPLETE GUIDE TO BIOMEDICAL TREATMENT
What Is It and How to Get Started
Conventional medicine treats the symptoms of autism. Biomedical treatment addresses the root cause.
What Is Biomedical Treatment?

Biomedical treatment is a systematic approach to treating the underlying issues and comorbid medical conditions of autism inside the body. It is managed by a physician and is individualized to the patient’s particular ailments.

There are many different biomedical therapies available to treat a child’s needs. Many autism symptoms, stims, and behaviors are treatable and can greatly improve through proper treatment. This guide aims to give you a general overview of what some of the treatment options are as well as how to find an expert to work with.
The ultimate goal of the biomedical treatment of autism is to remove environmental toxins and repair damage that has been done. The first step to getting started is by understanding what’s going inside the body to address core issues and get an individualized protocol to meet your child’s specific needs.

**FINDING A DOCTOR**

Your doctor will be a guiding force on your path. You should feel comfortable working with your doctor, asking questions, and having an open dialogue about your child’s needs. Together, you should work to address those needs and help your child reach his fullest potential.

We recommend investigating integrative healthcare practitioners in your area to find one that makes you feel most comfortable. Biomedical treatment (or functional medicine) addresses the root cause of developmental conditions (like autism) and uses alternative medicine to help the body heal itself naturally, reversing damage caused by environmental assaults. Integrative healthcare practitioners specialize in this type of treatment.

You’ll want a doctor who will listen, take your concerns into consideration, and fully investigate what’s going on with your child, treating the comorbid conditions associated with autism; not just masking the symptoms.

To find a list of preferred integrative healthcare doctors in your area, visit our doctor directory located in our Resources for Families section at generationrescue.org.

**INDIVIDUALIZED LABORATORY TESTING**

In many cases, a physician will need to order the following tests for you to get a comprehensive look at what’s going on underneath the symptoms. Laboratories that perform a variety of testing include: Doctors Data and The Great Plains Laboratory.
• **The Complete Blood Count (CBC) and Comprehensive Metabolic Panel (CMP)** check for anemia, platelet count (a high count is consistent with inflammation), and liver and kidney function.

• **Thyroid.** We find a significant number of children with autism who have hypothyroidism, which can mimic some of the symptoms of autism and impair development. A simple blood test called TSH can check for this problem.

• **Iron deficiency** can cause inattention and concentration problems. Low iron is also linked to lowered IQ. Iron supplementation in children with attention deficit hyperactivity disorder (ADHD) who have low iron levels has been shown to improve attention compared to a placebo, and iron supplementation in children with autism has been shown to improve sleep.

• **Ammonia and lactic acid** are initial tests that can help determine if mitochondrial dysfunction exists, which can lead to low energy production and hypotonia (low muscle tone) and is potentially treatable with supplements like coenzyme Q10 and L-carnitine.

• **Cholesterol.** A cholesterol count less than 145 mg/dl in typical children has been shown to increase defiance and irritability and increase the chances of school suspension by three-fold. Supplementation with cholesterol in some children with autism may be beneficial.

• **Cysteine** is the precursor to glutathione and is the rate-limiting step for glutathione production. Low levels of cysteine reflect impaired glutathione production or increased glutathione utilization due to oxidative stress.

• **Lead** has been shown in some studies to contribute to autistic behaviors in some children. An elevated blood lead level reflects ongoing exposure and should prompt an investigation to find possible sources of lead in the house or environment.
• **Magnesium** has a calming effect, and lower levels have been found in children with ADHD and autism. Magnesium supplementation can decrease hyperactivity and improve certain autistic behaviors.

• **Testosterone.** A small percentage of children with autism have elevated testosterone, which can lead to aggression.

• **The organic acid panel (OAT)** is a specialized test that can measure markers of yeast, Clostridia, and other markers such as vitamin levels and mitochondrial function.

• **Urinary porphyrin** concentrations can reflect increased heavy metal or pesticide levels in the kidney and are markers of the metal burden in the body.

• **Urinary neopterin** is a marker of inflammation and tends to reflect autoimmunity in some children with autism. Elevated neopterin often predicts positive responses to anti-inflammatory treatments.

• **Urinary oxidized DNA and RNA** are markers of oxidative stress inside the cell, and children with elevated levels often have improvements with antioxidants.

• **Urinary isoprostane** is a marker of oxidative stress outside the cell. Again, antioxidants can be helpful when this is elevated.

• **Stool testing** can check for the presence of inflammation, dysbiosis (increased levels of yeast and abnormal bacteria), digestion, and absorption.

Treatments to Explore

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There is a wealth of biomedical therapies that treat the underlying issues of autism inside the body. The following is a list of biomedical treatments to explore with a physician in order to help heal:

1. Follow the gluten-free, casein-free, soy-free diet and remove other food allergens.

The yeast-autism connection can be a result of candida (type of yeast) overgrowth in the system. This leads to many different behaviors such as, fogginess, sensory issues, negative behaviors.

“Gluten and Dairy seem to affect a lot of our children with autism and thus we see a lot of children respond terrifically when these are removed from the diet. The goal behind changing diets is to remove chemicals, toxins and potential neurotransmitters, which are liberated when food are broken down. These substances could be toxic for the brain and cause behavioral trouble in kids who are sensitive. Whether kids test as allergic or not, often they are causing a negative effect on the child and they must be removed. Each child has his or her own set of sensitivities that he or she can’t deal with properly. When we change their diets, 80 percent of the kids with autism seem to respond.” - Dr. Jerry Kartzinel, from Healing and Preventing Autism by Jenny McCarthy and Dr. Jerry Kartzinel.

More Resources:

- GFCFDiet.com
- The role of Clostridia and Autism
- The Yeast Problem and Bacteria By-products
- Improved Diet Helps Children with Autism
2. A properly functioning gut is important for overall health. Imbalances may lead to further issues and comorbid conditions. Help heal the gut with:
   - Antifungals
   - Antivirals: “Look into testing for viruses that can cause low-grade chronic infections: Herpes I, II and VI: Ask for the IgG antibody to these viruses Epstein-Barr: EBV panel Cytomegalo Virus: CMV panel.” – Dr. Jerry Kartzinel, from *Healing and Preventing Autism* by Jenny McCarthy and Dr. Jerry Kartzinel.
   - Digestive enzymes
   - Prebiotics and probiotics

3. Increase nutrient levels through vitamin and mineral supplements including: quality multi-vitamins and multi-minerals, high-dose B6, magnesium, fish oils and fatty acids, amino acids, melatonin, sulfation, glutathione, and natural detoxifiers.

4. Remove metals and toxins from the body through:
   - Anti-yeast protocols
   - Methylation
   - Chelation
   - Mb12, Valtrex
   - Homeopathy
     - National Center for Homeopathy
     - Cease-Therapy

5. Identify allergens/inflammation which can result from an improperly regulated immune system. The two categories to further research are; IgG-sensitivity (results in behaviors-delayed or immediate) and IgE-typical (runny nose, itchy, anaphylactic shock).

6. Investigate PANDAS, which is an abbreviation for Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections. This term is used to describe an autoimmune disorder that affects children with ASD that also have symptoms such as OCD, tics, etc.
   - *Microbes Manipulate Your Mind* - Bacteria in your gut may be influencing your thoughts and moods.
   - *Neuroinflammation and psychiatric illness*
7. Conduct further medical testing to look into food sensitivities, OAT (Organic Acid Test), Urine Heavy Metals, Red Blood Cell Elements, and comprehensive stool testing with parasitology.

**Additional Treatments to Investigate**

- Chiropractics
- Hyperbaric Oxygen Therapy — HBOT (oxyhealth.com)
- Ionic Detox Therapy (ioncleanse.com/autism)
- Infrared Sauna Therapy (sunlighten.com)
- Stem Cell Therapy (worldstemcellsclinic.com)
- Dr. Amy Yasko’s protocol

For a full list of integrative treatments worth investigating, visit [generaitonrescue.org/resources](http://generaitonrescue.org/resources)

When applied in conjunction with biomedical treatment, certain traditional therapies have been shown to support progress for individuals with autism spectrum disorders. Some Traditional Therapies Include:

- Early Intervention Programs
- Applied Behavior Therapy
- Lovaas
- Speech Therapy
- Occupational Therapy
- Physical Therapy
- Social Skills Therapy
- Relationship Development Intervention
- Sensory Integration
- Hippotherapy
- Music Therapy
- Neurofeedback
- EEG
- Auditory Integration Therapy
- Craniosacral Therapy
Disclaimer: None of the information presented here should be considered medical advice or a "cure" for autism. The information presented represents strategies for dealing with autism that have been reported as successful by professionals and/or families with autism. While we believe this information to be accurate we are not in a position to independently verify it and cannot guarantee that it will work in any particular case. No treatment for autism should be attempted without prior consultation with a physician familiar with autism spectrum disorders.
Biomedical treatment is a marathon, not a sprint. Now you have the proper tools to help aid you on your journey.