

Overview of Biomedical Treatments for Autism

Biomedical treatments for autism are based on the belief that autism is a treatable medical condition affecting many systems of the body. These treatments include, but are not limited to, the gluten-free, casein-free diet (GFCF diet); the Defeat Autism Now! approach; hyperbaric oxygen; cranio-sacral therapy; chiropractic; homeopathy, and much, much more. Most of these treatments share a common goal: to restore the body and brain to health so the individual's level of functioning can improve.

We have been doing biomedical treatments with our daughter, whom I'll call Emma, for almost a year. We've had some success in helping her, but it's become obvious that she is not a "quick fix" kid. Sometimes it feels like we take two steps forward and one and half back. On the days that it feels like we aren't getting anywhere, though, I remember all the things she couldn't do a year ago or even three months ago that she can do now, like climb into her car seat all by herself, take the caps on and off Magic Markers, and do pretend play with her Fisher-Price Little People. She can say, "I want + name of object," too. So we are getting there. To paraphrase the Grateful Dead, "What a long, slow trip it is!" But it's a trip that hopefully will get Emma off the spectrum totally, in time.

DIET

The GFCF diet benefits many children with autism. Gluten is a protein found in wheat, oats, barley and many other grains. Casein is a protein found in dairy products. Many times, children with autism have trouble digesting these proteins, and this wreaks havoc with both their digestion and their behavior.

A protein is a long chain of amino acids. Normally, digestive enzymes break down proteins into their component amino acids. Because of insufficient or non-functioning enzymes, though, the proteins can be incompletely broken down into short chains called peptides.

Normally, peptides are excreted from the body via the urine. However, children with autism often have what's called a "leaky gut," meaning the intestinal wall has become permeable from inflammation. This inflammation is thought to result from too many antibiotics, which kill off good bacteria in the intestines. It's not uncommon for kids diagnosed with autism to have had multiple ear infections, and multiple rounds of antibiotics.

With a leaky gut, there is no barrier between the gut and the bloodstream. Peptides cross the intestinal wall and attach themselves to the opioid receptors in the brain, resulting in a foggy, "drugged" state. When the offending proteins (gluten and casein) are removed from the diet, better behavior and more language often ensue. Digestive problems sometimes clear up, too.

The GFCF diet is expensive and hard to implement, especially at first. Having a child on a strict GFCF diet makes it hard to eat in restaurants, although we have solved this by taking Emma's food in Ziploc bags and her rice milk in a sippy cup. She doesn't usually want what others are eating—new food phobia is one of Emma's main problems—so eating non-GFCF foods in front of her is not an issue. In our house, Emma is only one on the diet, although some families find it easier if everyone eats the same things.

Those attempting the diet can find a wealth of resources online—simply Google "GFCF diet"—but they should be warned in advance that it can take several months to see if the diet will help. In our case, it has resulted in improvements in the areas of eye contact, receptive language and having fewer tantrums.

The diet must be done 100 percent, every day, for a minimum of six months, in order to test its effectiveness. That's because it takes up to six months for all traces of gluten to clear the body (casein takes much less time—about two to three weeks). Letting your child eat some "forbidden" foods just because it's easier than bringing your own food, or having to put up with a tantrum, is wasting time and money.

When implementing the diet, it's often recommended to withdraw dairy products first, and watch for behavior changes, before withdrawing gluten. We took two months to make the transition to the diet.

Often times, children who once only ate a handful of foods will start broadening their choices on a GFCF diet. That hasn't been the case with Emma, though. She still eats fewer than 10 foods. Guess that's just our luck!

Supermarkets that carry GFCF foods include Ukrop's, Whole Foods, Martin's and some Kroger's. Local health food stores also have GFCF products. GFCF foods generally cost two to three times as much as their "regular" counterparts—another reason why Emma is the only one in our house on the diet!

Other diets sometimes recommended for autism include the specific carbohydrate diet (SCD), the low oxalate diet, the body ecology diet and the Feingold diet. More information about these can be found online.

A good resource for families wanting more information about the GFCF diet is *Special Diets for Special Kids*, by Lisa Lewis. A more recent book is *The Kid-Friendly ADHD and Autism Cookbook: the Ultimate Guide to the Gluten-Free, Casein-Free Diet*, by Pamela Compart. Both books are available at Amazon.com.

Defeat Autism Now!

Defeat Autism Now! was started in 1995 by Dr. Bernard Rimland with the Autism Research Institute (ARI). The basic principle of the DAN! movement is to get things out of the child's body that shouldn't be there (for example, heavy metals) and get things into it that should be there, such as crucial vitamins and minerals.

DAN! practitioners, who are medical doctors who have been trained by ARI, usually start with a comprehensive history and tests for heavy metals and food allergies. They then move on to blood, urine and stool tests for gut function, because many children with autism have GI complaints such as diarrhea and constipation.

Most DAN! doctors want to resolve gut issues right away, before moving on to other treatments such as chelation for heavy metals. Research has shown that healing the intestinal tract results in improved cognition, language and behavior.

As a general rule, DAN! doctors do not believe in psychotropic medications for autism, such as anti-anxiety drugs and tranquilizers. They prefer to treat with nutritional supplements. Most also want their patients on the GFCF diet or something similar.

Seeing a DAN! practitioner is expensive (\$300-\$400 per hour), and many do not take insurance. Families should not give up, hope, though: most DAN! doctors will give you paperwork to file with your insurance company for possible reimbursement. Our insurance—an Anthem PPO—pays 80 percent of our DAN! doctor's charges. We have to pay first, though, and wait six to eight weeks for the insurance company to send us a check.

Those considering DAN! should also know that most DAN! doctors want their patients on a GFCF diet. Also, DAN! doctors tend to recommend lots of supplements, which can be very expensive and generally aren't covered by insurance. We are spending about \$200 a month on supplements right now.

Two excellent books that explain the DAN! movement's philosophy and treatments are *Changing the Course of Autism*, by Bryan Jepson, M.D., and *Children with Starving Brains*, by Jacquelyn McCandless. Both are available at Amazon.com.

Hyperbaric Oxygen

The use of hyperbaric oxygen for autism is based on the belief that autism involves neuroinflammation, or inflammation of the brain. This inflammation can be seen on magnetic resonance imaging (MRI) scans. Children with autism are generally placed with a parent into a

submarine-like tank for 40 sessions or “dives.” While they are in the tank, the children breathe 100 percent pure oxygen at greater than atmospheric pressure.

Benefits of hyperbaric include improved language; increased awareness/engagement; greater eye contact; more complex or age-appropriate problem solving; a more inquisitive nature; greater understanding of gestures and facial expressions; and increased/ more varied appetite.

Side effects can include sinus and ear problems (from pressure changes) and claustrophobia. Most patients tolerate the treatments well, though.

Much information about HBOT treatment for autism can be found online. It is possible to rent a chamber and perform the treatments in your own home. Emma’s DAN! doctor, Dr. Elizabeth Mumper, also has HBOT chambers at her office in Lynchburg. In Lexington, Dr. Tamara Santa Ana, a chiropractor, plans to put in a HBOT chamber this summer. We are thinking of trying HBOT with Emma at Dr. Santa Ana’s.

Families should be warned that HBOT for autism is not covered by insurance. It is very expensive. Forty sessions at Dr. Mumper’s costs approximately \$6,000, with a discount for prepayment. Forty sessions at Dr. Santa Ana’s costs just under \$1,200.

Other Therapies

There are many, many other therapies for autism, such as homeopathy, but I can’t speak to their effectiveness because I don’t know enough about them and have no personal experience with them at all. I recently read about a family who recovered their child totally by getting all plastics out of their house. Maybe it would work, but what a Herculean effort! I’m not going to start tossing out the Tupperware until I hear of that working for a lot more folks.

Resources Online

The best place to look for information about biomedical treatments is online. Here are some good places to get started. It might be good to know in advance that several of these groups believe that there is a connection between vaccines and autism, but one doesn’t have to share that view in order to benefit from the advice on beginning biomedical treatment.

Autism Research Institute: www.autism.com. This is a perhaps the best place to start for those brand new to the world of autism. The site has a tremendous depth of information about biomedical treatments in general and the DAN! movement specifically. Best of all, there is a section devoted to parent efficacy ratings of the various treatments. Here, you can find out what’s worked, and what hasn’t worked, for other parents.

Generation Rescue: www.generationrescue.org.

Talk About Curing Autism: www.talkaboutcuringautism.org.

National Autism Association: www.nationalautismassociation.org

Safe Minds: www.safeminds.org

Age of Autism: This opinionated blog is most definitely against the CDC’s current vaccination schedule and a national media that’s too afraid of losing its pharmaceutical ads to really ask hard questions. But it is honest, thought-provoking and often funny. The commentators, too, often give hints about what’s helped their kids. Check it out at www.ageofautism.com.

Note: This handout was put together by a parent who does not claim to be an expert in this area.