



Autism:
*What the
Experts Know*

Autism Resource Booklet

•Education •Enzymes •Biomedical •Diet •SI

Autism: *What the Experts Know*



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Dear Parents, Family Members and Professionals,

At The Autism Hope Alliance, we are so excited to bring you this resource booklet. With autism being the fastest growing developmental disorder we have ever seen, we knew bringing you this information was crucial. This is not meant to cure, treat or diagnose any individual. It is our sole intention to educate and show options for those facing autism. We always recommend consulting with a physician before starting any new treatment.

We collaborated with leading experts in the field of autism to bring you a team approach. Our sincere wish is that this resource booklet provides you with hope, inspiration and practical tools that you find useful.

The Autism Hope Alliance will continue to support our children and strive to give them the best chance for success. We wish you and your family much health and happiness.

Highest regards,

Kristin Selby Gonzalez
President/Chairman, Autism Hope Alliance
Mother of Jaxson, Diagnosed with Autism

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Progress for One Provides Hope for All

By Kristin Selby Gonzalez
Autism Hope Alliance, President
Mother of Jaxson, Diagnosed with Autism

Your dimples and smile filled the room. Your eyes seem to glow. From afar, you looked like the happiest little 2 ½ year old in the world. After having three miscarriages and being told you were never going to be born, I was so ecstatic when you were born weighing 11 pounds 1 ounce and were 24 ½ inches long. You beat all odds. Now, I am sitting in this doctor’s office watching you being evaluated.

“Jaxson, please put this puzzle together,” the doctor says. I watch you study the puzzle, and the doctor starts a stopwatch and begins timing you. Your daddy looks nervous. I just want answers. Why aren’t you talking anymore? Why do you run around the table 100 times? Why don’t you hear me when I call your name? Where’s my little boy?”

You put the puzzle together. Your daddy looks relieved. The doctor asks, “What is this, Jaxson?” as she shows you a picture of a dog. You ignore her. My stomach sinks. The doctor says, “Look at my eyes.” You ignore her completely. Tears fill my eyes. The smile on your face stays put. You are so innocent and pure. The questions continue, and you appear deaf.

The silence in the room becomes overwhelming for me, and tears run down my face. The doctor tells us, “Your son has autism. We have a pamphlet that might guide you on some services.” This is one of many evaluations to come.

- Later we would be told: you will never be capable of talking
- Later we would be told: you will never be able to look at us
- Later we would be told: you will never know the difference between us and the chair we sit on
- Later we would be told: you will never have friends
- Later we would be told: you will be in a group home by the time you are 8 years old
- Later we would be told: “Once a duck, always a duck.”

Where we are 10 years later....

“Good morning, Jaxson,” I say.

“Good morning, Mommy.” You reply with a huge grin.

Your laughter fills the house and it is contagious. You come in the kitchen and ask me if we can go to the beach. I tell you that we have to eat breakfast first, and then do schoolwork and then we can go to the beach. I ask you to go get dressed and clean up your room. You skip to your room and get dressed and attempt to make your bed. As I hear you in your room it makes my heart melt to have these moments that we were told weren't possible. Even though you are delayed in language and not where your peers are at regarding academics, you are getting there! My little boy is coming back to me little by little every day. When I ask the question: "We can do anything, right?" You reply to me, "Yes, together."

Where you are at 14 years of age:

- * You ride a bike
- * You ride a scooter
- * You are potty trained
- * You are learning to read and write
- * You are learning addition and subtraction
- * You take gymnastics classes
- * You take karate classes
- * You are rockclimbing
- * You are participating in Hippotherapy
- * You are taking dance classes
- * You are learning to play the piano
- * You are now exploring the world as your home based program has expanded and you now go shopping, to the park, you love amusement parks, going on boats and to the beach. You are interested in other kids and say, "Hi" to everyone and are interested in wanting to play with them (this is a new thing for you and we are helping you figure this out). Step by step I see you beating the odds! You work harder than anyone I know! You are limited with language however, understand so much. Most importantly, I have a relationship with you.



*Kristin, pictured here with Jaxson.
"We use a multi-pronged approach
with Jaxson. These are just
options to look into."*

What we are doing with Jaxson:

- ABA
- Diet
- Enzyme therapy
- Biomedical treatments
- Cod-liver oil
- The Listening Program®
- Infrared sauna
- Sensory integration techniques
- Speech therapy
- Epsom salt baths
- IonCleanse® Foot Baths
- Vitamin supplementation
- Filtered water
- Air purifiers
- Toxic-free household products
- Hyperbaric oxygen therapy
- (Did The Son-Rise Program® previously for years that was helpful)

Some of my favorite links are:

- www.kristinselbygonzalez.com
- www.autismhopealliance.org
- www.facebook.com/kristinselbygonzalez
- www.facebook.com/autismhopealliance
- www.twitter.com/kyselbygonzalez
- www.twitter.com/autismhopealli



Breakthrough Strategies from the Autism Treatment Center of America's Son-Rise Program®

By Raun K. Kaufman, Director of Global Education for Autism Treatment Center of America®



In the early days of your child's life, there may have been a hundred different hopes, dreams, and plans you had for your child. But then your child was diagnosed with an autism spectrum disorder.

You may have felt that many doors were closed to your child with that diagnosis. If you are like most parents, you may have been told to discard many of those hopes and dreams and be “realistic.” You might have been told all of the things your child will never accomplish — as if it's been decided in advance.

The most important place for you to begin is to know that you don't have to accept the limits that may have been placed upon your child. Your child has the capacity for learning, experiencing real joy and happiness, and developing warm, loving and satisfying relationships with the people in their lives. Children on the autism spectrum are capable of great change and even, in some cases, complete recovery.

Who am I to tell you this? Someone who's been there. As a young boy, I was diagnosed as severely autistic, with no language and a tested I.Q. of less than 30. Completely mute and withdrawn from human contact, I would spend my days endlessly engaged in repetitive “stimming” behaviors such as spinning plates, rocking back and forth, and flapping my hands in front of my face.

Like many parents today, my parents were told that I would never speak or communicate in any meaningful way and that my autism was a “lifelong condition.” The professionals recommended eventual institutionalization.

In an effort to reach me, my parents, authors/teachers Barry Neil Kaufman and Samahria Lyte Kaufman, developed an innovative child-centered program that they called The Son-Rise Program. After they worked with me for three and a half years, I recovered completely from my autism without any trace of my former condition. (After my recovery, my father wrote a book recounting our story entitled *Son-Rise: The Miracle Continues* — later the subject of an NBC television movie.) I went on to graduate from the Ivy League's Brown University with a degree in Biomedical Ethics. Now, as the Director of Global Education for Autism Treatment Center of America (in Sheffield, MA), part of the non-profit organization that my parents founded and at which they still teach, I am so grateful to have the opportunity, with our dedicated staff of over 70, to enable parents to help their children in the same way that my parents helped me.

Moreover, I am no fluke. For over a quarter of a century, parents from across the globe have been attending our weeklong training programs, putting in their own time, energy, and love, and achieving results with their children that often far outstrip prognoses.

The foundation of the program rests upon this idea: *the children show us the way in, and then we show them the way out*. This means that, rather than forcing children to conform to a world that they don't understand, we begin by joining them in their own world first. In this way, we establish a mutual connection and relationship. Unfortunately, autism is often treated as a behavioral disorder, with the effort focused on stamping out some behaviors and training in others. But autism isn't a behavioral disorder. (Our kids' behaviors are symptoms, not causes.) Rather, autism is a social-relational disorder. This means that the overarching challenge, whether a child is a not-yet-verbal 5-year-old or a highly verbal 17-year-old, is the same: difficulties communicating, making eye contact, reading non-verbal cues, dealing with people and social situations, coping with high levels of sensory stimulation, being flexible with changing circumstances and with other people's wishes and agendas, and branching out from their extremely powerful interests. Therefore, creating interpersonal relationships and social interaction must be our primary focus.

One specific technique derived from this principle is called **joining**. In fact, this marks the crucial starting point for The Son-Rise Program and is one of the first principles we teach parents in the Start-Up program (our introductory course). Instead of stopping a child's repetitive "stimming" behaviors, we join in with these behaviors. Our children are performing their behaviors for reasons that are important to them (and, as an increasing body of research shows, these behaviors often serve a physiological purpose, as well). When we show interest in what they are doing, we establish a powerful bond around this common interest. This is so important, because we find repeatedly that children begin to display an interest in us when we have an abiding interest in them. What's more, this interest is spontaneous, not forced. These children interact because they want to.

Joining establishes a real connection between a child and his or her parent or facilitator. We see time and time again with the thousands of families with whom we work that when children on the autism spectrum are joined, they become less interested in their activity and begin to look at us more, pay more attention to us, and even initiate interaction with us.

If we want to build a rapport and connection — the platform for all education and growth — with our children, then we must begin by entering their world, following their interests, connecting on their terms.

The next key principle is facilitating skill acquisition by capitalizing on your child's own **motivation**. In another reversal of traditional methods, we focus on locating children's primary areas of interests before deciding what and how to teach them. This way, we use the skills and interests our child already has instead of trying to teach "against the grain" by using a medium that doesn't work for our child.

In the case of children with autism spectrum disorders, traditional learning modalities will rarely be motivating. Therefore, we must customize the presentation of curriculum to match the child's highest areas of motivation.

If we match our goals to each child's area of motivation, the result is a highly effective symbiotic marriage between skill acquisition (social interaction, toilet-training, language development, etc.) and a particular child's natural areas of interest (Disney characters, airplanes, physical play, etc.). Thus, learning is exponentially



increased - with a unique and startling benefit: we have our child's willing cooperation. A child who has learned something — not memorized it, but learned it — generalizes that skill and can then use it spontaneously (rather than in a robotic, programmed manner with a prompt and a reward).

When choosing what to teach or work on with your child, it is important to focus on **socialization** before academics. Academic skills certainly have value. But they won't do anything to help our children overcome the central challenge they face — namely connecting with others socially. Our children don't need more math, they need more friends. This happens only through the development of social skills such as eye contact, communication, interactive attention span and flexibility.

For this same reason we want to prioritize the interaction over the goal. No matter how important we think a particular goal is, interaction and connection will always get us and our children further in the long run. Think about it. Is it that important for your child to accomplish a particular goal on a Thursday instead of Friday? Or is it more crucial for your child to continue to build a bridge of interaction between his/her world and ours? So, if you start to see that sticking with your goal is creating tension, conflict, or resistance, set the goal aside for the moment and keep the interaction alive.

On a separate note, it is essential to address your whole child — on the educational front and the biomedical front. The interventions outlined by the other contributors to this booklet can be incredibly useful in addressing your child's biological and physiological challenges. What makes a powerful treatment program is creating synergy — making the interventions work more powerfully together than individually. This is done by tackling two challenges: getting your child to willingly participate in the interventions and getting your child's body in a state where it can maximally utilize the interventions.

We teach many techniques for surmounting the first challenge, such as giving your child control (so that they don't feel threatened and can get on board for adopting the food, enzymes, headphones, etc.), relationship-building (as discussed above, which is vital for building enough trust so that your child is willing to go with you even when they aren't yet totally on board), fun creativity (the development of fun, silly games to get your child excited about participating in the intervention), the attitude and emotional state of the parent or therapist (which has a huge effect on whether your child is comfortable with the intervention), persistence without pushing, starting at a distance, modeling, and integration of the intervention into your child's world.

As for the second challenge, we have a concept called The Recovery Mode. Many children on the autism spectrum have elevated levels of cortisol and/or adrenaline (the stress hormones). In essence, for children with this issue, they are in constant fight-or-flight survival mode. Aside from the fact that learning and social interaction are nearly impossible for our children when they are in this state, it is also key to understand that, as a rule, the body does not engage in sustained physiological repair (S.P.R.) in this state. However, research is beginning to show that when children are worked with according to Son-Rise Program-type principles, it can help them to shift from fight-or-flight survival mode into Recovery Mode. When this happens, stress hormones can drop into normal ranges, and the body can then engage in S.P.R., which means that your child's body can then make maximal use of the biomedical interventions being given.

Finally, let's talk about the single most overlooked area when it comes to the treatment of children on the autism spectrum: attitude. A non-judgmental and optimistic attitude is the critical element. We see time and again that children with autism tend to move away from people they perceive as uncomfortable, agitated, or judging and toward people they see as comfortable, easy, fun, safe, and non-judgmental. Thus, we can use our attitude to become an interaction magnet. In fact, the reason why we spend a great deal of time in our Start-Up and other programs helping parents with their emotional and attitudinal challenges is because we have found, over the years, that creating and sustaining a welcoming attitude of hope and optimism is crucial to implementing and maintaining an effective program.

So no matter what you are told, please know that there is hope for your child. Of course, someone who doesn't know your child will see what your child *does not* do and speak as if they know what your child *cannot* do.

But you are the parent. You have a love, a lifelong commitment, and a day-in, day-out experience with your child that no one else can match. You may sometimes feel dismissed or brushed aside, but nothing can change the fact that you aren't *in* the way, you *are* the way.

No one has the right to ask you to apologize for believing in your child, for seeing the potential within your child, and for wanting more for your child. While we cannot know or promise in advance what a given child *will* accomplish, having hope means that we will never decide in advance what your child will *not* do.

The only reason I can write this article today is because my parents believed in me when no one else on earth did. So you keep believing in your child without apology. We'll be here waiting for you, ready to help you and your child reach the stars.



**Autism Treatment Center
of America**

For more information:

Call 1-800-714-2779 — or (413)-229-2100. You can register for any of our programs this way, particularly the Start-Up, or you can make an appointment to speak with one of our Son-Rise Program Advisors. (free of charge). As a non-profit organization, we provide financial aid to families in need.

Visit us at www.autismtreatment.org where you can find lots of information, techniques, studies validation The Son-Rise Program and free web presentations that you can use immediately.

Also, visit me on FaceBook at www.facebook.com/Raun.K.Kaufman. I post helpful tips throughout each week!



The Listening Program®: An Effective Treatment for Autism

By Alex Doman, CEO and Founder of Advanced Brain Technologies

Children with autism spectrum disorders (ASDs) experience difficulties with social interaction, communication, attention, motor skills, sensory processing, sleep, and anxiety; they also have a tendency to engage in repetitive behaviors. These symptoms and their severity vary widely with each child and are often accompanied by challenges with immune dysfunction, allergies, GI issues, seizures, and other medical conditions.

Parents face a daunting array of treatment options to help their children attain their fullest potential. Each child is unique and as such, their autism intervention should be holistic and adapted to meet their individual needs and goals.

The Listening Program® (TLP) by Advanced Brain Technologies is an easy, personalized, and effective method of music listening therapy for improving brain health and performance.¹ TLP has a global effect on the brain influencing the central, and peripheral nervous systems, influencing: auditory, vestibular, visual, motor, cognitive, emotional and arousal systems and their function. It is a safe and enjoyable way to exercise the brain while also helping to regulate stress. This makes TLP an ideal approach for helping children with autism, which integrates well with behavioral therapies, neurodevelopmental programs, sensory-based approaches, educational treatment modalities, social skills training, biomedical treatments, neurofeedback, occupational therapy, and speech & language therapy.

The Musical Brain

One may ask how The Listening Program® can have such global effects. The answer lies deep within each of us. The brain is musical; neuroscience has established through functional brain imaging that when we listen to music, virtually the whole brain is involved.

Music listening not only involves the auditory areas of the brain, but also engages large-scale neural networks including; prefrontal cortex, motor cortex, sensory cortex, auditory cortex, visual cortex, cerebellum, hippocampus, amygdala, nucleus accumbens, corpus callosum, vestibular system, and peripheral nervous system.

TLP helps conduct the neural symphony, connecting the most ancient parts of the brain to the most advanced. The areas of brain focus The Listening Program is designed to help improve include:

- **Executive Function**

Executive function is an umbrella term for a set of high-level mental processes that control and regulate other abilities and behaviors. They include the ability to initiate and stop actions, to monitor and change behavior as needed, and to plan future behavior when faced with novel tasks and situations. Executive functions allow us to anticipate outcomes and adapt to changing situations.

- **Communication**

Communication is your ability to exchange information, thoughts, and opinions through verbal and written expression including speech, language, voice and writing; as well as non verbal expression such as gesture, facial expressions, and body language.

- **Auditory Processing**

Auditory processing is your ability to understand and make sense of what you hear. Difficulty processing auditory information can have a negative impact on learning, thinking, communication and relationships.

- **Social & Emotional**

Your ability to relate to others, manage emotions, resolve conflicts, understand and respond to social situations is impacted by your social skills and emotional intelligence.

- **Stress Response**

Your body and brain is hard-wired to react to stress to protect you against threats, whether real or imagined. But, if your mind and body are constantly on edge because of excessive stress in your life, you may face serious health problems. That's because your body's "fight-or-flight reaction" — its natural alarm system — is constantly on.

- **Motor Coordination**

Motor coordination is the harmonious functioning of body parts that involve movement including: gross motor skills such as walking, skipping, running and throwing; fine motor movement such as hand-writing, buttoning a shirt, and keyboarding; and motor planning, the ability of the brain to conceive, organize and carry out purposeful movements.

- **Creative Expression**

Your ability to express yourself creatively involves original & open thinking, imagination, problem solving, and movement to create something new and/or respond to opportunities.ⁱⁱ

Auditory Hypersensitivity: An Emotional Response

One of the most commonly reported challenges for people with autism spectrum disorders is hypersensitivity to sound.ⁱⁱⁱ Auditory hypersensitivity involves a brain network called the non-classical auditory system and is an emotional response to sound rather than an auditory response.^{iv} Children described as being hypersensitive to sound have negative emotional reactions to sound and situations in which the sounds are present. A toilet flushing, vacuum, or loud restaurant are examples of commonly reported sounds or situations in which a child may have an autonomic nervous system reaction, which typically involves fight or flight responses. For example, in anticipation of the frightening sound a child may lose control of their behavior and try to run away (flight); they may put up a strong, negative, emotional fight to avoid the sounds (fight); or they may retreat into themselves seeking calm through behaviors such as covering their ears and rocking. A hypersensitive reaction can occur in anticipation of a sound, even if the sound itself is absent. It is possible to desensitize these negative emotional reactions and reprogram the emotional memory system so that children are no longer frightened by sounds.^v



A series was developed for The Listening Program® called SPECTRUM that involves a gentle method to desensitize the limbic system and reprogram the emotional memory system, with the aim of making sounds something one desires to listen to rather than avoid. It is comprised of High Definition recordings of classical music presented in Spatial Surround® sound through multi-sensory headphones, called Waves™, which provide an immersive listening experience including both air conducted sound, and gentle, calming vibrations throughout the body, or bone conduction.^{vi} This highly specialized music is listened to once or twice daily for fifteen minutes, 5 days per week for a total of 200 sessions done over the period of several months. The music is recorded then acoustically modified to lead the child to react less negatively to sounds and, thus, reduce the child's hypersensitivity. A trained provider, usually a professional such as an occupational therapist or speech-language pathologist, monitors the TLP training. The provider typically establishes the actual program and protocol based on the individual child's needs and parents carry out the training in the home or it is offered at school.

When listening to TLP SPECTRUM, it is thought that the sound signal travels along both the classical and non-classical auditory pathways. Likely confirming this assumption, one of the first outcomes that parents, educators, and professionals often see in children undergoing TLP training is that the children are calmer. This is a good indicator that the listening has tapped into the emotional areas of the limbic system via the non-classical auditory pathways. Over the course of training, children often are also reported to be more attentive to sounds, better able to detect sounds they hear, and more communicative when communication is verbal, likely because they are more open to listening. As the training proceeds, the child continues to relax and become calmer when listening. We hypothesize that this is because a reprogramming of emotional memory in the amygdala is occurring. The training reprograms listening and sounds as positive experiences. When the child then finds him- or herself in a real-world situation and hears sounds that may have been frightening or annoying in the past, the training allows the child to process the sounds in more neutral manner.^{vii}

TLP SPECTRUM^{viii} is available through trained providers on an iPod preloaded with the acoustically modified music programs, including with the Waves multi-sensory audio system, or high quality headphones. It is also available through online audio streaming to most web connected devices (computers, tablets, mobile phones) on The Listening Program Online^{ix} platform.

Toilet Training

Toilet training can be challenging for children with autism spectrum disorders. A number of common problems can make toileting hard including, physical, language, dressing, fears, body cues, and need for sameness.^x Competent toileting is a critical life skill.^{xi} It is an important step in personal independence, and incontinence is a significant barrier to quality of life.

Over the course of many years we heard frequent anecdotal reports from parents and therapists that The Listening Program® led to spontaneous remission of bedwetting, and helped children become toilet trained. Previous research involving TLP reported improvements in many areas including auditory skills^{xii}, speech and learning, but none had looked specifically at toilet training outcomes. A nurse and continence expert in the United Kingdom named June Rogers conducted a pilot investigation funded by the National Health Service to look specifically at the effects of The Listening Program®, including air and bone conduction sound delivery,

in improving toilet training outcomes for children with autism, developmental, and learning difficulties. The results from the pilot project exceeded all expectations. The hope was at the end of the 12 week study the children would at the very least be relaxed enough to sit on the toilet and potty and cooperate with a toilet training program. The fact that 7 of the 11 children who completed TLP became toilet trained was very encouraging. And the 4 who did not become toilet trained in the time, each made improvements, very positive considering all previous attempts at toilet training lead to no real progress. The results of this research were presented at the European Society for Paediatric Urology (ESPU) conference in Turkey in April 2010 when it was awarded the best Nurse Research Paper Presentation.^{xiii}

While this was a small study it has laid the groundwork for larger scale clinical trials to be carried out, and has given parents and therapists the confidence to utilize TLP to improve quality of life for children with autism as part of a successful toilet training strategy.

Sleep Matters

Sleep is precious, and most of us don't get enough of it. In fact the Centers for Disease Control and Prevention stated that insufficient sleep is a public health epidemic.^{xiv} Over 70 million Americans are not getting sufficient sleep, and our children are among them.

Children with autism may sleep less each night due to disturbed sleep than typically developing children and those with other developmental disabilities according to a new study. While the study only showed an association between autism and sleep disturbance, researchers noted that the findings do suggest there is some sort of "shared neuropathological basis" between autism and biological clock disturbances.^{xv}

"There are increasing biochemical and genetic data to support the existence of fundamental disturbances in circadian melatonin production in some children with autism, which may partly explain these findings," the authors wrote. "Children with ASD are reported to have reduced levels of circulating melatonin and disrupted circadian rhythms, and links have been identified between genes involved in melatonin synthesis and ASD, which could help explain the disturbed sleep patterns observed in children with ASD."^{xvi}

The most commonly reported sleep disturbances in autism are increased sleep latency, and frequent night waking which result in reduced sleep duration. Sleep matters and lack of sleep comes with a high cost to our ability to learn, our health and safety, behavior, and quality of life. In the short term, a lack of adequate sleep can affect judgment, mood, ability to learn and retain information, and may increase the risk of serious accidents and injury. In the long term, chronic sleep deprivation may lead to a host of health problems including, diabetes, cardiovascular disease, depression, obesity, and Alzheimer's disease.

Advanced Brain Technologies has developed a new and highly effective auditory sleep aid that is used when going to sleep called The Listening Program[®] SLEEP (TLP SLEEP).

The technology behind TLP SLEEP is based in part on over 15 years of research in hearing, balance, and sleep by neuroscientist Seth Horowitz. It is a new approach to helping people of any age go to sleep more quickly and stay asleep longer. TLP SLEEP uses three kinds of sound that work directly on the brain's global sleep network in different ways.



1. Very low frequency sounds activate the vestibular system to trigger Sopite syndrome, the motion-induced sleepiness that babies experience while being rocked and that most people feel while riding as a passenger in a car or on a train.
2. Quiet “pink” noise shaped to match the sound signatures of heartbeats and breathing reduces activity in the brain’s arousal centers to encourage relaxation.
3. Binaural beats — slightly different sound frequencies delivered to each ear to trigger frequency-following response between the brain’s hemispheres — help the brain match the waveforms that characterize the stages of sleep.

The sleep-inducing technology embedded within the acoustically modified music created for TLP SLEEP uses all three methodologies. These music programs were composed, arranged, and recorded specifically for aiding sleep. They were created by Advanced Brain Technologies and an international team of experts, leaders in music effects research and production, psychoacoustics, and neuroscience.^{xvii}

Each of the three music programs which are provided on an iPod Shuffle and are played through Sleep Phones (a sleep safe headband with speakers) provides soothing, unobtrusive, instrumental music with subtle sounds of nature, and ambient music that entrains the brain to improve sleep regulation. Embedded within these beautiful recordings are proprietary neurosensory algorithms that produce sleepiness. The result is that TLP SLEEP helps retrain the brain’s sleep rhythms so that people naturally go to sleep faster, have less night waking, with improved sleep quality and duration.

Will The Listening Program Be Helpful for Your Child?

More than 15 years of clinical evidence, studies, and case reports indicate that children with autism benefit from The Listening Program[®].^{xviii} Thousands of therapists and other professionals working in leading autism organizations, hospitals, clinics, schools, and in private practice worldwide have helped families affected by autism with TLP and have not observed any significant negative responses to listening. Some children do have temporary adjustment symptoms as their brains begin to reorganize in response to the music, but this usually resolves within a few days. Listening schedules can be adjusted to accommodate more sensitive children. Although TLP can take a few months to make lasting changes it will often make a positive impact in the life of the child within weeks. Awarded Best Autism Product by Autism One, TLP is also Autism Approved by Autism Hope Alliance, and is offered as part of the Generation Rescue Family Grant. The Listening Program is a safe, effective, and complementary approach that should be considered as a foundational treatment for children with autism.

Call: US Toll Free 1.888.228.1798
International + 1.801.622.5676
www.advancedbrain.com

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- ⁶ Learn more about Waves™, the multi-sensory audio system optimized for The Listening Program at <http://advancedbrain.com/waves> (last accessed 23, November, 2013).
- ⁷ Jay Lucker, Alex Doman, *Autism Science Digest*, vol.4, 2012.
- ⁸ Learn more about TLP SPECTRUM and how to get your child started at <http://advancedbrain.com/spectrum> (last accessed 23, November, 2013).
- ⁹ TLP Online is a subscription based service and is not available in all areas. Learn more at <http://tlp.advancedbrain.com> (last accessed 23, November, 2013).
- ¹⁰ "A Parent's Guide to Toileting for Children with Autism" *Autism Speaks, Autism Treatment Network, Autism Intervention Research Network on Physical Health*, http://www.autismspeaks.org/docs/sciencedocs/atn/atn_air-p_toilet_training.pdf (last accessed 24, November, 2013).
- ¹¹ K.A. Kroeger, Rena Sorensen- Burnworth, "Toilet training individuals with autism and other developmental disabilities: A critical review" *Research in Autism Spectrum Disorders*, 3 (2009) 607-618.
- ¹² Gwenyth Jeyes, "A study to establish whether the use of The Listening Program® is effective in improving auditory skills for children with autism" http://www.advancedbrain.com/pdf/research/jeyses_study_autism.pdf (last accessed 24, November, 2013).
- ¹³ June Rogers, "A pilot investigation into the effects of listening to modified classical music, including bone conduction, in improving toilet training outcomes for children with learning difficulties" http://www.advancedbrain.com/pdf/research/tlp_research10_10_rogers.pdf, (last accessed 24, November, 2013).
- ¹⁴ "Insufficient sleep is a public health epidemic". Centers for Disease Control and Prevention, <http://www.cdc.gov/features/dsleep/> (last accessed 24, November, 2013).
- ¹⁵ "Kids with autism may have poorer sleep" http://www.huffingtonpost.com/2013/10/01/autism-sleep_n_4018215.html (last accessed 25, November, 2013).
- ¹⁶ Joanna S Humphreys et al "Sleep patterns in children with autistic spectrum disorders: A prospective cohort study" *Archives of Disease in Childhood*, September 2013, doi:10.1136/archdischild-2013-304083.
- ¹⁷ For more information on TLP SLEEP including white papers, interviews, and audio samples visit <http://advancedbrain.com/sleep> (last accessed 24, November, 2013).
- ¹⁸ To review completed research, case studies, and studies in progress visit The Listening Program Science. <http://advancedbrain.com/science> (last accessed 23, November, 2013).



The HANDLE Institute®

How a Sensory-Motor Approach to Autism Can Help Alleviate Problematic Behaviors, and How HANDLE® Differs from Classic Sensory Integration.

By Judith Bluestone
Founder of the HANDLE® Institute
& author, *The Fabric of Autism: Weaving the Threads into a Cogent Theory*

For decades, neuroscience has recognized that the brain is plastic: it is in a constant state of adaptation based on the stimulation it receives via the body's interaction with the environment.

We have known for years that individuals with autism engage in stereotypical behaviors. For example, a child may have an obsessive-compulsive need to line up blocks in a particular fashion and cannot tolerate the blocks being moved. HANDLE® (Holistic Approach to NeuroDevelopment and Learning Efficiency) does not try to extinguish certain behaviors and replace them with others. Rather, the HANDLE practitioner endeavors to understand the behavior itself, from the perspective that behavior is communication.

In the example given, we might find several reasons for this behavior. Frequently the child is extremely sensitive to the movement or displacement of energy in his surroundings. He may be placing the objects in a specific position to shield himself, much like building a fortress. A hole in a strategic place in the fortress makes the child vulnerable to attack from an enemy that others do not see.

Since each of our senses receives different sources of energy for processing (e.g. sound, light, taste, odor, proximity/pressure) and the brain must integrate them into a perceptual whole (reality), the HANDLE practitioner realizes that hypersensitivity in any realm can be the source of the need to protect oneself in an area of vulnerability.

By using a behavioral model that insists that the child remove his barriers and allow other people and sensations to enter his world, we are actually attacking the child's senses and sensibilities, and under siege, he may capitulate.

But if we want the person to develop strength in navigating his world, we need to view these behaviors as communication of a sensory need. Since the core deficit in Autism Spectrum Disorders is communication, and since behaviors are in themselves very clear communication (once you have the eyes to see it) of underlying neurodevelopmental challenges and attentional priorities that are neurophysiologically driven, we need to credit the child with communicating his needs.

We need to rename "melt-downs" and see them as "flare-ups," since we put flares up to ask someone to pay attention to what is bothering us and help us resolve our difficulty (not to superimpose on us their judgment

that something as silly as an errant ray of light reflected off a shiny surface couldn't possibly be bothering us, or a particular sound couldn't possibly require us to shut down our ability to listen to conversation or directions).

This is where HANDLE — a Holistic Approach to NeuroDevelopment and Learning Efficiency — excels. In its holistic nature, and in its ability to chart the interactions of the systems mentioned above for each individual, it offers a potential for integration and strengthening of the many interconnections, while respecting at all times the validity of what the autistic person is experiencing. Through the use of specific HANDLE activities, the neural pathways are strengthened without being stressed, and thus growth can happen and tolerances can gently be increased.

We can truly help children become functional adaptive beings in their total environment by first discovering and then treating underlying sensory-motor irregularities and doing so from a systems approach. But to do so, we must first “listen” to what each child is telling us; and then continuing to listen as we work with them. That concept, known as Gentle Enhancement®, is at the core of HANDLE.

To understand this principle, it's important to realize that stressed systems don't get stronger. Stress causes a person to go into “fight or flight” response, which means that the autonomic nervous system is on alert, diverting most energy and available nutrients toward immediate survival and away from the task at hand. When a client comes for a HANDLE program, their systems already have weak areas that don't function well, hypersensitiveness in one or more systems, and the client is already working as hard as he or she can. HANDLE practitioners are trained to watch for subtle signs of stress (state changes) and activities are immediately stopped when a change is noted. Parents and eventually clients themselves learn to notice these state changes as well.

HANDLE activities, unlike “classic” sensory integration, do not use fast movements, spinning or many repetitions. An activity may be completed after 30 seconds, if that is the individual's current tolerance. This individualized activity program, given following a full assessment by a certified HANDLE Practitioner, is done at home, and takes about 20 minutes a day. As each person begins to be able to handle a bit more input and integrate it, naturally the state of extreme fear will begin to lessen, and the corresponding autistic behaviors begin to recede.

HANDLE doesn't target skills; its holistic approach promotes efficient neurological functioning. And when that functioning is efficient, skills are learned without undue effort or drill. Thus, HANDLE offers full respect to each individual.

For more information check out: www.handle.org



Alert Program® Overview: Supporting Children with Autism

by Mary Sue Williams and Sherry Shellenberger

We believe that all behavior is a child’s best attempt to communicate. Also, we believe that by understanding self-regulation and sensory issues, we can better support optimal functioning. And that can help children to not only show us their talents and gifts, but live their days happily and interact comfortably in the world.

Self-Regulation

As occupational therapists, we teach that self-regulation is the ability to change how alert we feel. In the Alert Program®, we tell children and their parents, “your body is like a car engine, sometimes it runs on high, sometimes it runs on low, and sometimes it runs just right.”

We self-regulate every hour of every day. Self-regulation is the foundation of everything we do; it affects how well we interact with others and our environment, but typically we never think about our “engines” or how our level of alertness affects our ability to function.

Say you need to type a report at work. If your “engine” is in a high state (you’re feeling hyper), it will be more difficult to do your best work. If your “engine” is in a low state (you’re feeling lethargic), writing the report may take longer. If your “engine” is in a “just right” state (you’re feeling alert and focused), you will be more likely to complete the report quickly and effectively.

The same is true for children, those developing typically and those with autism and other special needs. Through the Alert Program, the goal is not for engines to be in “just right” all day long. The goal is to enable our children to change how alert they feel so they can be “just right” for whatever they want to do: learning, working, playing, relaxing, or interacting with friends and family.

We all have engines. Some of our engines just rev a little higher or lower than others, and some need a little more help to attain a “just right” state of alertness. One of the best things about helping children to obtain an optimal state using the Alert Program is how we talk with them. Instead of fall back phrases like: “Calm down, you’re out of control,” the Alert Program emphasizes the use of non-judgmental language and helps children choose engine strategies: “Gee, looks like your engine’s in high gear. Shall we jump ten times or take some deep breaths together?”

Overview of the Alert Program

We developed our first book, *“How Does Your Engine Run?”™ A Leader’s Guide to the Alert Program® for Self-Regulation* for parents, teachers, therapists and children to learn about the importance of self-regulation. The Alert Program is a practical approach to help all team members choose strategies to change or maintain appropriate states of alertness at home, school, or other settings.

The Alert Program is based on how the body processes sensory information. You may be familiar with the “sensory diet” concept (www.avanit-ed.com). Just as we need a nutritional diet, we need a sensory diet with input from our traditional senses, as well as movement and gravity. In the Alert Program, we explain the sensory diet concept to children in more simple terms. We teach there are five ways to change how alert we feel: put something in your mouth, move, touch, look, and listen.

Let’s look at an example of how we as adults use engine strategies (part of our sensory diet) to self-regulate. When sitting in a dark movie theater, where we would have the tendency to drop into a low state, we might crunch on popcorn (mouth), drink an ice cold drink (mouth), rock in the chair if it’s an upscale theater (move), hold our friend’s hand in the scary parts (touch) while we watch the action on the big screen (look) and jump out of our seats (move) with the loud surround sound (listen)! When we realize what we (as adults) do to change how alert we feel, then we are better able to observe and support children.

As adults, we support self-regulation in infants quite naturally. We would comfort a baby who was breathing quickly, maybe crying, tightening her little arms and legs, perhaps flushing. We might offer a bottle (mouth) or rock her (move). We might swaddle her (touch), dim the lights (look), or sing a lullaby (listen). Similarly, if she is slow to rise and needs help to awaken, we might again offer a bottle (mouth), gently bounce her arrhythmically (move), swiftly rub her arms and legs (touch), take her outside or into bright light (look), or sing her a silly song (listen).

In this example, obviously, we are not suggesting to use the engine analogy with an infant, “Your engine’s low, hit the gas, wake up!” Children of any age do not need to be able to talk about their engines in order for adults to help provide sensory strategies. If a parent suspects a child is having difficulty processing sensory information at a loud, crowded birthday party, he might think to himself, “Looks like my son’s engine is in high.” Then, in a gentle tone of voice, he might say to his son, “Let’s go outside and push on a wall.”

Engines on High!

Many children on the autism spectrum are experiencing difficulties with self-regulation or sensory overload (engines on very high alert). They can’t take in and make sense of what they see, hear, touch, taste, and smell. Sensation and movement can be so confusing to their nervous systems that their bodies go into fight, flight, or fright.

The fight, flight, fright response helps protect our bodies from danger. That’s the response we need if a tiger is coming at us. Sensory overload is a commonly overlooked reason why a child goes into a fight, flight, or fright state. Remember: whether the threat is real or perceived, it can still trigger stress chemistry. For those who do not process sensory information well, the world feels unsafe and overwhelming. The Alert Program teaches how to observe, offer strategies, and create environments where sensory information can be processed better. No child should live in a world full of charging tigers.

Reading Engine Signals

When adults understand what sensory overload signals the child is giving, powerful changes can occur. The Alert Program teaches the team how to observe signals such as dilated pupils, changes in breath and skin color, clenching, sweating, or more subtle changes such as eye aversion, finger-flaring, or hiding under the table.



It takes good detectives and observers to read engine signals, but it's not rocket science. By reading Alert Program books or attending a live or online training, parents and school staff easily learn how to support self-regulation. Adults report that offering engine strategies doesn't take more time, but saves time and can decrease behavioral outbursts.

The Alert Program emphasizes the benefits of setting up the child's nervous system for success. In one of many research projects, Alert Program was found to be effective in helping children to "self-regulate, change tasks, organize themselves, cope with sensory challenges, and focus on tasks in the classroom". (Barnes, Karin, et al., 2008. For an extensive list of research and evidence-based practice, click on the "Research" at www.AlertProgram.com).

If we believe that all behavior is the child's best attempt to communicate, then we can learn to be "detectives" to decipher the sometimes confusing signals and offer appropriate strategies to support engines running "just right." (*Take Five: Staying Alert at Home and School* goes into more detail with lists of activities and suggestions.)

Why Heavy Work Activities?

The Alert Program frequently recommends heavy work activities because heavy work "works" when engines are in high or in low states of alertness. Activities that involve pushing, pulling, tugging, towing, and carrying heavy objects help engines to rev up or cool down to return to a "just right" state where it's easier to interact, learn, and play.

Through the Alert Program's games and songs, children learn how to independently choose their own heavy work activities and engine strategies with guidance from their adults. The snappy rhythms of the Just Right Song and Five Ways Song make identifying engine states and choosing engine strategies fun. Our Alert: Go Fish!, Alert Bingo, and Keeping on Track board games reinforce the self-regulation concepts through visually appealing themes like cars racing, monkeys on a playground, ducks at school, and dogs playing poker.

Who can be an Alert Program Leader?

Anyone - parent, teacher, or therapist - can be a leader of the Alert Program, but we strongly suggest that at least one person on the team be familiar with sensory processing theory and self-regulation. Usually this person is the occupational therapist on the team. We recommend she be available to coach and consult regarding more complicated sensory/behavior situations.

When teaching the Alert Program, team members can share honestly about their own adult engine. In this way children learn even more. A parent might say, "Boy, I had a hard day at work and my engine is in high right now. To cool down my engine, I'm going to go read the newspaper for a little bit."

Engine Vocabulary

Using engine vocabulary bridges the gap of our jargon on teams so we can focus on what is best for the child. When adults talk about a child's engine (whether or not the child is participating in labeling engine levels for themselves), they create better communication and solutions.

For example, a parent of a child with autism who is non-verbal may have a spiral notebook that is sent back and forth to school for notes. After the team is familiar with the Alert Program, the mother may write in the morning before school, "John 's engine is in high this morning. Our alarm clock didn't go off so all of our engines are in high this morning. Good luck!"

The teacher would read the notebook when the child entered the classroom with a much better idea of how to begin the school day. Then the teacher might ask the child to carry a box of books down to the office (heavy work activity). Providing heavy work would help the child's engine return to a "just right" level for learning. Throughout the day the teacher would provide other "engine strategies" such as chewing on a straw (mouth), pushing on a wall or doing chair push ups (move), sitting on a minimally inflated beach ball (touch and move), wearing sunglasses (look), or listening to music through headphones (listen).

At the end of school day, the teacher might write in the notebook to the parent, "You were right. John's engine was in high gear when he got off the bus but we gave him extra engine supports today. But then right before loading the bus, we had a fire drill. Sorry. Good luck!"

But the team does not need to use only the engine analogy. We initially introduce the engine vocabulary because it is a common analogy that many children enjoy. Use any descriptors that have meaning for the child (sounds, colors, animals, etc.) Choose words that are most useful to children to describe their inner experience of self-regulation. If a child loves dinosaurs then you might use raptors for a high state of alertness, brontosaurus for low, and stegosaurus for just right.

Some children will never be independent in self-regulation. For those on the autism spectrum who are non-verbal, for those who have significant developmental delays, or for those whom language is challenging, the concept of an engine may be too abstract. Rather than talking about their engines, they could point to photos taken when they were in high, low, and just right. Or adults might only offer engine strategies, without labeling engines. An adult might say, "Today, in the car, do you want to take your Silly Putty?" Remember the goal is not to be excellent at labeling levels of alertness, the goal is to help children self-regulate.

In Summary...

If your engine has been idling nicely and you were attending easily as you read this, then you already know about self-regulation. We hope the Alert Program renews, refreshes, and refuels your ways of supporting children, so their engines can run "just right."

To learn more about Alert Program books, songs, games, research, and trainings go to:

www.AlertProgram.com



Active Healing

By Sargent Goodchild

As a 44-year-old practitioner of neurological reorganization (NR), I have confidence, but not the kind nourished from the experiences of a charmed life. My confidence has been forged through the struggles which I have successfully overcome, mainly, the nearly overwhelming struggles of being a child with severe epilepsy who was considered mentally retarded and uneducable. My childhood was marked by teasing, bullying and being treated as if I was less than everyone else. Yet, because of my unique treatment program, by the time I was thirteen the challenges I faced from the age of four were completely gone. Unfortunately, for many people with a similar childhood as mine, this is not true. Today, we are in the midst of an epidemic where too many children face educational and social-emotional challenges on par with mine and in many cases, something much worse.

The solutions begins with the developmental sequence a child passes through from rolling to walking. This process is vital to their later social, emotional and academic health. Parents that give a child proper love, nourishment and remove any obstacles preventing her acquisition of physical milestones foster the perfect environment for a child to fully develop mentally, physically and emotionally. By providing these three core essentials in their first years of life parents can give children a foundation that lasts a lifetime. Yet, at an increasingly alarming rate, the heritage that we as parents are passing down to our children is not one of health, but rather disease and dysfunction.

In part, this is due to the false presumption that health is the absence of symptoms. In our attempts to control the body's expression of symptoms and eliminate diseases we have increasingly turned to antibiotics, vaccines and an enormous amount of medicines. We have been successful in this vain, but it has turned us away from supporting the body and ultimately fostering its health. We have decided in our false wisdom that we can medicalize and prioritize the body's needs and then use an outside force to compel the body to submit to our demands.

Parents of children on the autism spectrum might keep their child in a preferred position such as their back or a vibrating chair because of its apparent soothing effect on them. Yet, whether we put a child upright in an activity station before they are capable of maintaining an upright position on their own or we let them linger in a car seat to sleep, we are disrupting the development of their brain. The challenges a baby faces when crawling on her stomach or creeping on hands and knees represent many of her most important learning opportunities. These opportunities will shape both her physical anatomy and neurological structure. If we want to understand how to recover children from autism or the many other developmental challenges our children increasingly face, we must study healthy development and see where the child made a detour.

It has been my experience during the 19 years I have been practicing neurological reorganization that children on the autism spectrum have their primary dysfunction in regions of the brain known as the pons and midbrain.

Ideally, sophisticated function of the pons is achieved by three months of age and the midbrain by eight months as a child masters stomach crawling and hand-and-knees creeping, respectively. These two skills provide the infant with increasingly challenging tasks that stimulate the growth of the brain, develop its structural integrity and provide the foundation for all of their later skill acquisition. In fact, according to a 2009 Autism One presentation by Woody McGinnis, MD, “Bernard Rimland hypothesized very early in his career that when technology became available we would find that damage had occurred in these two areas of the brain.” It is my belief that Bernard Rimland knew this because of his close relationship with Arthur Sandler, PT.

Arthur Sandler, PT, was one of the early practitioners of Neurological Reorganization (NR). The guiding principle of NR is that the brain is shaped through the use of developmentally appropriate functional movements, the two focal points being crawling on the stomach and creeping on hands and knees. His belief was it is possible to use these and other specific functions as a window into the integrity of underlying neurological structure. If the movements are poor, then so too may be the aspect of the brain which controls them. Arthur Sandler’s experience was that children with autism demonstrate grossly abnormal crawling and creeping techniques which are symptomatic of an injury to both the pons and the midbrain. Fortunately, since both of these skills are learned we can go back at any time in person’s life and teach these skills.

The body is a self-healing entity. The fact that broken bones and wounds mend is a testament to its power. On a more profound level, the body is also capable of healing after traumatic brain injuries, cancer and autism. Autism is a biomedical disorder, but it causes significant developmental delays. It is my experience that a powerful technique for children on the autism spectrum is NR. NR directly targets the missed stages of development and facilitates their acquisition. My approach exercises the functional movements and sensory skills responsible for initially maturing the nervous system to create healthy integrity within the brain.

The brain is comprised of many different structures that closely communicate with each other and are individually responsible for the myriad of functions humans perform. The Ontogeny of Human Neurological Functions correlates various brain stages with the functions with which they are associated. As a practitioner of NR, when working with an individual on the autism spectrum, I am most concerned about the integrity of the pons and midbrain. When these two foundational levels in the brain achieve integration, many of the child’s intellectual skills, which reside in the cortex, are restored because they have the proper communication and flow of information from these lower brain stages.

Tummy crawling is a function of the pons, and, from a tactile perspective, controls the awareness of pain, temperature and discomfort. It is also responsible for signaling the production of serotonin known as “the happy neurotransmitter.” Therefore, the pons has a large role in the emotions of pleasure, aggressive behavior and anxiety. When a child has either skipped this stage of development or has passed through it in an atypical fashion, it is likely to observe symptoms associated with these areas. Kids on the milder end of the spectrum get labeled with sensory integration disorder, anxiety (which often masquerades as hyperactivity) and learning disabilities. Almost without exception, children with autism demonstrate significant motor planning issues when they are asked to crawl on their stomachs.

The midbrain is also most always affected, but is generally less impaired than the pons. The midbrain is largely responsible for both physical and emotional balance, motor function, smooth and complete movement of the eyes and is the relay station for vision and auditory senses. It is also the home of the thalamus which is



responsible for long-term memory, recall, hearing, and vision. The skill having the greatest emphasis on the integration of the midbrain is hands and knees creeping. Many children with autism spectrum disorders have found a unique method to get across the floor in this position. Examples can include feet that bounce off the floor, hands and legs that are synchronized by side rather than by opposites, four-beat rhythms, hands that rotate outward or inward, slouched heads, and a plethora of other unique styles.

The first step in my evaluation process is an assessment of the individual's overall neurological sophistication. This is done by contrasting the individual's performance against the expected skills in six different areas (vision, hearing, touch, mobility, language, and manual skills) from the perspective of four different brain stages (medulla oblongata, pons, midbrain, and cortex). Having determined where an individual's primary weakness lies, a structured program of developmental movement is created. Basically, we recreate any stage in that individual's development where full sophistication has not already been achieved. This allows the child to benefit from the natural and intended experiences they have never acquired.

A program of neurological reorganization is the parent's opportunity to learn and carry out a unique and individually tailored program that will mature their child's brain. After a thorough assessment, parents are given a program that instructs them on how to facilitate specific developmentally appropriate skills which lead to neurological organization and health. This generally involves dynamic ranges of motion that teach two fundamental skills:

- Coordination of the movement of the child's arms and legs in various rhythms typical of the various stages of development.
- Integration of reflexes that may be acting as barriers to more advanced mobilities and skills.

These skills are taught in sets of varying durations that are repeated a few times a day. Each set is paired with a developmental movement the child is asked to perform immediately after a repetition of the dynamic range of motion. Other pieces of the program include techniques to reflexively instruct the child to become a deep breather, stimulate the vestibular system or help the child acquire early reading skills.

For my part, I continue to be inspired by the potential for complete recovery of all children with non-progressive brain injuries and developmental challenges. Thanks to a program of NR, I was given my complete health before I turned 13-years-old. Today, it is a great joy to be able to teach this same program to families across the country and elsewhere. Practitioners of NR have not changed their focus in any of its 50-year history, successfully working with children afflicted with a wide variety of developmental challenges.

To learn more about Active Healing, Inc., call 978-525-3608 or visit www.activehealing.org. Appointments can be scheduled via phone or through our website.

Holistic Treatments for Autism

By John H. Hicks, MD

The History

When I started my practice as a pediatrician twenty-five years ago, autism was a rare occurrence. So rare, in fact, that it was never even discussed in my pediatric residency. Ten years later, I began to see the first signs of the coming epidemic. The explosion of ADD in the mid 1980's was the prelude to what was soon to come. Childhood asthma, allergies, food sensitivities, ADHD, and autism cases skyrocketed, along with a rise in adolescent chronic illnesses. Pediatricians in the mainstream medical community pointed to better diagnostic tools and increased awareness as the reasons for the dramatic rise of new cases. Those of us on the front lines of autism knew better.

I attended my first DAN conference in September of 2000. There I found some answers. I learned basic information about the dangers of heavy metals adjuvants and vaccine components, digestive disorders, food intolerances, immune dysfunction, and detoxification. One year later, I abandoned my pediatric practice. I began exclusively treating children with autism, a passion that developed from my relationship with my greatest teacher, my stepson, Joey.

When I met Joey, he was a tremendously ill little boy. Joey was six months old when he had seven vaccines in one day. In the space of that one day, he disappeared into his own world—the world of autism. Although many of the methods I learned from DAN were beneficial to a number of my patients at the time, Joey was unable to tolerate one vitamin and had a food intolerance list of about 50 foods. It was baffling and frustrating. When Joey was about eight years old, I met a wonderful woman by the name of Beth Van De Boom. Beth nearly died from a combination of undiagnosed celiac disease, uncooperative physicians, and massive dosages of dangerous medications. When she finally recovered, she began a life-long quest to understand natural medicine. Through Beth, I was introduced to homeopathy, and as I saw its healing power, I began to read and research everything I could find on energy medicine.

Joey is 20 years old now and is amazingly healthy. He no longer has food intolerances and is an exceptionally joyous young man. My evolution as a doctor, and what I learned during those twelve years, was greater than everything I had ever learned in medical school. I abandoned the belief that medication cures anything. I learned that each and every child has his or her own innate healing path. I learned that the body is only as strong as its weakest link, and most importantly, I learned that the answer to the problem lies in the cause, not the symptoms. A symptom can have multiple causes from different systems in the body and a practitioner must be willing to search for the cause.

Digestion

Nutrition is the basis of all functioning of the body. Without proper nutrition, cells will not have energy, enzymes cannot be formed, hormones cannot work, and no tissue can be built. The two building blocks of proper nutrition are food choice and proper digestion of those foods. Many individuals on the autism spectrum have digestive enzymes that function poorly or not at all. Other digestive issues are improper flora, unbalanced pH,



absorption, and gut wall inflammation. A comprehensive digestive stool analysis will provide information on all these issues and also provide a look at anaerobic bacteria and yeast. This information will show you the basic direction to put the digestive system back on track.

There is no question that diet is the most important foundation for healing the autism body. Gluten/Casein-free, SCD, and other special diets need to form the basis for all other treatments. However, many times parents get so caught up in following the “allowed” foods list that basic nutrition is ignored. A perfectly followed GF/CF diet can keep peptides low, and a perfectly followed SCD can help control yeast, but there are other variables to consider. The nutrition found in a wide variety of proteins and vegetables are not attainable through any other method than diet. Adding cultured vegetables and bone broth to the “Autism Diet” is desirable because of their many benefits in healing the gut. However, if parents are dealing with a “picky eater,” there are certain supplements that can also provide great benefits to digestion.

Probiotics are one of the mainstays to healing leaky gut and reducing reflux; they are also integral parts of our innate immune system, help support our bodies stress response and help regulate our hormone system. Enzymes for digestion and yeast are also key factors to a healthy intestinal track. If leaky gut is present, then the use of an epithelial regenerating glandular, blood cleaning chlorophyll, and natural okra pepsin all work to accelerate the healing process. It should be mentioned that in any “healing process,” there might be the occurrence of “die off” — caused by the liver and kidney’s inability to clear the toxins that are produced from killing the abnormal bacteria and yeast. To prevent this from occurring, I will use artichoke or Beta TCP extract for thinning the bile and aiding elimination, and the homeopathic product, Drainage for increasing blood flow to the liver and kidneys.

When considering probiotics, we must understand that oral probiotics are only transient in the gastrointestinal tract. They are the perfect addition to remove unwanted bacteria and yeast. However, in the long term and healing of leaky gut, the best and most lasting probiotics come from lacto-fermented foods. These provide probiotics that will implant and help repair and maintain the proper balance in the gut flora. Lacto-fermented foods also provide B vitamins, digestive enzymes, and the most absorbable forms of minerals. The combination of lacto-fermented foods and bone broth, are the best ways to heal leaky gut.

For abnormal bacteria, the use of natural antibacterials or Vibrational remedies (which are energetically derived, and work like homeopathics, but with much less alcohol), can be used to clear specific bacteria or used for general bacterial clearing. The abnormal bacterial distribution can be between aerobic and anaerobic bacteria. Some of these bacteria produce toxins that lead to malabsorption and leaky gut. When undigested foods leak through the intestinal wall into the body and then into the blood stream, the immune system attacks the food particles in the same way it would bacterial invaders. Because of this reaction, food hypersensitivities develop. These are also known as IgG antibodies. Elimination of certain foods becomes necessary in the short term. However, in order to heal the leaky gut and prevent further intolerances, the immune, detox, and digestive systems all need to be addressed.

Detoxification

Detoxification is the process that our body uses to convert fat-soluble materials into water-soluble materials for excretion. Our body's ability to detoxify is largely influenced by genetics. The detoxification conversion process is carried out in two phases: Phase I is composed of the cytochrome P450 enzyme system. It carries out the first reactions and the resultant compounds may be more toxic than the originals. A healthy detoxification process must have a balance between Phases I and II; otherwise, the intermediate free radicals can cause significant damage. Phase II is divided into separate reactions that are controlled by enzymes. These enzymes can be examined at the DNA level to see if they are removing toxins efficiently. If either of these two phases is out of balance, then we will accumulate rather than eliminate the exposed toxins in our environment. Our hormones and neurotransmitters; dopamine, epinephrine and nor epinephrine, are also regulated by this system. Many people with hormone imbalances have difficulty with their detoxification system, as imbalances are not simply limited to glandular irregularity. This is one way to look for those who are susceptible to having difficulties with immunizations.

The most vital way to support detoxification is to assist the body's elimination of toxins. Artichoke extract, Beta TCP and the homeopathic product Drainage are all useful, but one of the big detoxification "superstars" is Glutathione. Glutathione is our body's natural eliminator of many solvents, fungicides, herbicides, lipid peroxidases, and heavy metals. Many individuals with chronic illnesses and most of the autism Spectrum population have reduced glutathione production or glutathione malfunction. Because of this, there is accumulation rather than excretion of toxins. With this accumulation, there is an increase in lipid soluble compounds, which affects cellular energy and brain function. The effects of heavy metals on the neurological and immune systems further complicate the situation. Adjuvants, substances that are injected along with an antigen to enhance the immune response to vaccines, depend on glutathione for removal and the disparity of this system allows the lipid soluble compounds to create a large number of physical disorders.

Glutathione is exceptionally fragile, and needs a carrier to facilitate gastrointestinal absorption. It is most beneficial through IV, aerosol, transdermal absorption, and through liposomal form. Simply taking glutathione tablets is ineffective. The gut enzymes break down the glutathione, resulting in a non-effective treatment.

There are a multitude of homeopathics and vibrational remedies that support all phases and enzymes of the detoxification system. Many foods, including beets, berries, fibrous foods, and most vegetables, (with the exception of potatoes and corn), naturally support the body's excretion process. One of the easiest ways to help flush out the body's detox system on a daily basis is with clean filtered water. To figure out how much water one should consume in a day, cut your body weight in half. That number is the amount of ounces your body requires to stay hydrated.

Immune System

The immune system is also greatly influenced by DNA. Most people on the autism spectrum have immune dysfunction in which they display a TH-2 shift. With this shift, they are over producing antibodies and have a decreased ability to fight and clear viruses and cancer cells. This shift may be triggered through a genetic predisposition coupled with the interaction of environmental exposures. A history of frequent early infections followed by an absence of illness represents the shift in the immune system. Without attention to the problem, the pattern of producing large quantities of antibodies may include the production of auto-antibodies (when



the body attacks itself). Many natural and affordable treatments can help rebalance and shift the immune system back to normal without resorting to medication. Transfer Factor, Moducare, Mushrooms and Vibrational remedies such as Immune Balance help neutralize the immune system imbalance. Before taking any supplements, it is essential to know the direction of the shift and whether or not auto-antibodies are present. Taking supplements blindly can cause further shifting of the immune system in the wrong direction.

Methylation and Neurotransmitters

Neurotransmitters are substances that act to tell our senses, our brains, our muscles, and our organs what to do and what is happening elsewhere in the body. They are generally associated with brain function: mood, focus, concentration, anxiety, obsessions, and bipolar disorder, but every cell in the body has receptors for these neurotransmitter compounds, so their impact is felt throughout all of the body's systems. One of the most common reactions for neurotransmitter inter-conversions is processed through the catechol-o-methyl transferase enzyme. This enzyme converts dopamine to epinephrine to nor epinephrine. When this enzyme is affected, there is an increased risk of depression, bi-polar disorder, autism spectrum disorder, and alcoholism.

The most common neurotransmitters are dopamine, epinephrine, norepinephrine, and serotonin. Dopamine, epinephrine, and nor epinephrine are called the catecholamines and are inter-converted by a reaction called methylation. Methylation is a process that adds methyl groups to compounds. Methylation plays a role in epigenome function, neurotransmitter function, and homocysteine conversion. Epigenomic function turns genes on and off. The enzymes that control methylation and epigenome function are affected by the environment and by your DNA proficiency. This control begins in-utero and continues throughout one's whole life. Your parental DNA controls the DNA of both neurotransmitters and homocysteine conversion. This basic DNA "blueprint" can be modified, however, by supplementing the appropriate co-factors to encourage maximum enzyme production and function. Supplementation that can help support the methylation process is a combination of methylcobalamin, folic acid, and DMG (dimethylglycine). These supplements can help support production and interconversions of the catecholamines. Other modifications can be carried out with vibrational remedies, which can modify receptor activity, transporter activity, uptake, and enzyme activity.

Serotonin levels can be imbalanced due to inadequate amounts of 5-Hydroxytryptophan. Imbalances with serotonin can cause issues with mood, focus, anxiety, OCD, concentration, cooperation, and sleep. The usual cause is inadequate amounts of the enzyme that converts tryptophan to 5-Hydroxy Tryptophan. Supplementation must be carried out with appropriate support of both the serotonin and dopamine neurotransmitters. SSRI drugs, such as Prozac, have significant brain altering complications and do not correct the core of the issue. Raising serotonin levels naturally produces numerous benefits without negative or dangerous side effects.

One of the newest prospects on the horizon, is the use of CBD (Cannabidiol). CBD is a cannabinoid that can be derived from the hemp plant and does not have the psychoactive component of THC (Tetrahydrocannabinol) which is the active component of marijuana. CBD has been experimentally found to be anti-inflammatory for the whole body. It can specifically work in the colon. It is neuro-protective which means it protects neurons from damage and can help repair damaged neurons. It is also shown to help control synaptic connections and

neurotransmitter release. It can help reduce anxiety, depression, focus, and concentration. The system through which these work is the endocannabinoid system, which helps modulate stress response, seizure activity, hormone balance, and immune system function. Since it is derived from hemp, it is legal in all 50 states.

The Benefits of Holistic Medicine

Autism produces a range of symptoms and affects every system in the body. The use of holistic medicine offers a natural and synergistic approach to restoring balance and optimal function.

I have presented a brief overview of some of the major treatment challenges and options. However, due to the complexity and inter-dependence of all the body's systems, customized protocols should be considered when treating each individual. When you treat the cause, you continually take steps forward without the fear of side effects and adverse reactions to medications. Despite the fact that most vitamins, supplements, and other natural healing remedies do not require a prescription, I strongly urge anyone who is focused on treating autism to work with a trained professional who will create a customized path back to optimal health and wellness.

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Understanding the Biomedical Basis of Autism Spectrum Disorders

By Dr. Phillip C. DeMio, MD
Biomedical Treatment Practitioner
Chief Medical Officer, US Autism & Asperger Association®
Founder & Executive Director, American Medical Autism Board®

The Autism Spectrum Disorders, including Autism, PDD, Asperger's Syndrome, ADHD, OCD (obsessive compulsive disorder), RAD (reactive attachment disorder) are treatable. Evidence shows that autism spectrum disorders are a metabolic, GI, immune, and nutritional disorder which is often the result of toxins such as mercury, vaccines in those persons who are susceptible, and those that may be in the environment. This leads to profound adverse effects on the brain, development, and behavior. That is, the Autism Spectrum Disorders are medical, not mental, and they respond to medical treatment. This is the biomedical concept.

Dr. DeMio and his staff hope for people to have information to employ for their biomedical journey. Dr. DeMio treats patients from all over the world and he focuses on the biomedical treatment including those of the Autism Spectrum Disorders. The goals of treatment are relief of symptoms, restoration of health, and the maximizing your child or loved one's cognitive function and independence. These treatments aim to improve your child's function by improving cognition and gastrointestinal health with the aim that he or she can become functional and independent. The family that succeeds at this for their child will have a total program that includes comprehensive biomedical treatment along with a balanced program including therapy. With this in mind, Dr. DeMio encourages you to pursue biomedical treatment for your child.

The following is a list of some biomedical options for adults and children on the autism spectrum:

Brain: Dr. DeMio recommends often including dietary intervention, other specialized nutrition, supplements, encephalitis/viral treatments, detoxification of heavy metals (chelation), and neuro-immune treatments. The goal is to allow the brain to recover, allowing the patient to gain function and independence.

Gastrointestinal: Dietary intervention is a major treatment of Autism Spectrum Disorders. The patient's problems are assessed including those of gastrointestinal immunity, poor enzyme function, malabsorption, maldigestion, and persistent viral infections. Dr. DeMio recommends a multi-pronged approach including antiviral treatments with goals to improve nutrition, reduce pain, form normal bowel function, and take steps toward toilet training. This helps the GI system and the body to tolerate a broader number of foods without toxic and allergic reactions and helps to eliminate dysbiosis such as yeast and clostridia.

Immune system: This involves three areas: immune deficiency (frequent infections that are often prolonged compared to normal), autoimmunity (the body attacking itself, eg. the brain, the thyroid, and the GI system), and finally allergy. A gluten-free/casein-free diet often improves immune function, so this is instituted up front, along with natural supplements that stimulate the immune system, as opposed to poisoning it with

vaccines and other toxins. Treatments such as oral or IV immunoglobulins, transfer factors, and probiotics are used for this purpose. Minerals and antioxidants help to redirect the immune system away from autoimmunity and help protect other tissues from damage that occurs with multiple infections, autoimmunity, and allergy. Dr. Demio recommends that practitioners limit the need for medications and unnatural treatments (antibiotics) where able. Among the few drugs that Dr. Demio more liberally recommends antifungal medications to fight yeast, thus helping the immune system to get a further boost. This, is in tandem with herbal treatments, that can lessen the dose and frequency of drugs. Curcumoids such as Enhansa[®] and therapeutic enzymes such as Candidase[®] and ViraStop[®] are recommended for most of Dr. Demio's patients.

Metabolic/hormonal: The goal here is to reverse metabolic blockages, and restore smooth continuous function for your child or loved one's metabolic and hormonal machinery. Everything from thyroid to testosterone to estrogen can be in disarray leading to complete inability to utilize food, water, and air and turn it into proper body function. This also involves issues of methylation (B-12, folate, TMG/DMG), sulfation, and vitamin metabolism, among others. Therefore, based on the history and on testing, Dr. DeMio fosters a combination of diet, supplements, and detoxification to assist your child or loved one's body on the road to improvement of metabolism and hormonal balance.

Detoxification/chelation: Heavy metals and other toxins have wide sweeping effects on the cell nucleus, metabolism, the immune system, GI function and the brain. Therefore, detoxification such as chelation and other techniques often help to improve global areas of your child's cognition and behavior, as well as motor function including muscle tone, and fine movements. Other areas such as sensory integration also benefit. All chelators are available through Dr. DeMio, such as DMSA, DMPS, TTFD (allithiamine), CalciumEdta, glutathione, along with lipoic acid (a brain chelator, also known as thioctic acid). There are still others that can be used in particular cases. Most of these are now available in creams, so we can avoid yeast, taste aversion, and other GI side effects of older treatments. Supplements and a clean diet are also used to bolster your child or loved one's own internal detoxification systems.

Supplements: First and foremost, supplements should be clean (GFCE, free of heavy metals, and other toxic additives). Dr. DeMio recommends the use of a group of very pure, high quality supplements to his patients, such as Enzymedica[™] and OurKids.

Compounding Pharmacist: Every child on the spectrum needs a compounding pharmacist who is well versed with persons with special needs and who will work closely with a biomedical doctor. Dr. DeMio recommends the Lee-Silby Pharmacy for his patients. Chelators must be compounded (made from scratch) for the best results. Other treatments include a recently developed topical B-12 so that injections can be avoided. We also use adenosyl-B-12, which can aid recovery in low motor tone in the child or individual who seems to be drained of muscular energy all day.

Special diets and nutrition: This is not simply the removal of all foods that are currently difficult for your child to tolerate. Virtually all of our children with Autism Spectrum Disorders are malnourished. The use of dietary intervention should aim at malabsorption, gliadorphin/casomorphin/neurotoxic peptides, and extremes of diarrhea and constipation. Enzymes such as Digest Spectrum[™] and CarbGest[™] can help here. Dr. DeMio's suggestion here is to help restore proper enzyme function, digestion, eubiosis (normal balance of healthy bowel bacteria), and GI immunity. Addressing all of these issues is the best approach to helping your child make the most out of the nutrition that you work so hard to put on their dinner plate and get them to eat.



You need to take them a step further so they can actually utilize the nutrition. This is done by administering the necessary diets, not all at once, as opposed to simply erasing every single food that is out there. This is especially true with children who are picky and have such difficulty with food. The diets Dr. DeMio uses for his patients include: gluten-free/casein-free, fermented foods, low sugar, modified low carbohydrate, anti-yeast, allergy, toxin/rotation, pigment—restriction and whole organic foods. Dr. DeMio himself is on a gluten-free/casein-free, corn-free, soy-free, and peanut-free diet, so he knows directly about implementing special diets at home, when traveling and when eating out. Additionally, we implement diets with the proper use of supplements, along with Dr. DeMio’s specialized techniques of using enzymes such as Digest Spectrum™ and GlutenEase™. Additional vitamins and minerals help the body use the nutrition that it absorbs. These recommendations are made in a sensible, balanced fashion under exacting detail.

Other Treatments: Dr. DeMio’s philosophy is to use biomedical treatments and a holistic approach combined with cutting edge state of the art medical care. This includes the use of vitamin and mineral supplements, essential fatty acids, gluten and casein-free diet (as well as many other nutritional techniques), digestive aids such as probiotics, enzymes, colostrum, antifungal treatments to control candida and other yeast, control of clostridia and other bacteria, the use of secretin, heavy metal detoxification (eg. chelation), the use of immunoglobulins (intravenous and oral), antiviral treatments for such conditions as persistent viral encephalitis (Valtrex®/Cortef®) and persistent measles (full-dose vitamin A and other immune stimulants), and many other treatments.

The take home point is DON’T WAIT! Dr. DeMio believes that we have treatments right now that work for our kids today. We can’t hold back the chance of recovery while the clock is ticking, because opposing powers want to mull it over for decades.

We all thank the late, Dr. Bernard Rimland, a psychologist and a parent of an autistic son, who had always been kind and encouraging to Dr. DeMio in his practice and in the continuing recovery of Dr. DeMio’s son; he has been a tireless champion for the biomedical treatment of Autism Spectrum Disorders. Years ago terms like “refrigerator mother” were the norm along with the mental illness model. Dr. Rimland was the voice standing up for the biological aspects of autism, leading to the treatments we now have. Call Dr. DeMio or another practitioner today to discuss the many biomedical options available for your child or loved one.

Dr. DeMio cares for patients from your town and from across the country and around the world. We see patients from towns all over Ohio, and throughout the United States. Additionally many patients come from international locations, with Dr. DeMio giving care to patients from four continents. As a parent of a child with autism, Dr. DeMio knows what it is like to have a child who has special needs on a special diet. Treatment can be provided via telephone and/or video consultation. Care includes that for Autism Spectrum, Lyme Disease, Pain and Arthritis, Fatigue, and ADHD. We hope the best for you and your loved one on your journey.

Phillip C. Demio MD & Staff

www.drдемio.com
www.asdboards.com

RoadMap to Health

By Dr. Amy Yasko, Neurological Research Institute, LLC

Contributors to Imbalance

We've often heard that imbalances in health have a sole cause and a single "magic bullet" cure, but nothing so clearly disproves that theory than the growing epidemic of autism. At the Neurological Research Institute (NRI), we explore the interplay of the multiple factors contributing to autism and other health conditions, including:

- Infectious agents
- Environmental toxic burden including heavy metals
- Genetic factors undermining metabolic efficiency

Complex Conditions call for Comprehensive Solutions

Dr. Yasko's goal is to help families (and practitioners) address autism and other neurological disorders via a comprehensive approach, featuring:

- Nutrigenomic testing to locate areas needing support
- Individualized nutraceutical recommendations
- Biochemical testing to track the healing process
- Information products for understanding safe ways to detox and rebuild capacity
- Community of caring and information sharing

What is Nutrigenomics?

Nutrigenomics is the study of molecular relationships between nutrition and the response of genes, with the aim of extrapolating how such changes can affect human health. According to the National Center of Excellence in Nutritional Genomics at UC Davis, "The science of nutrigenomics seeks to provide a molecular understanding for how common dietary chemicals (i.e., nutrition) affect health by altering the expression and/or structure of an individual's genetic makeup".

Just as pharmacogenomics has led to the concept of 'personalized medicine' and 'designer drugs', so will the new field of nutrigenomics open the way for 'personalized nutrition.' In other words, by understanding our nutritional needs, our nutritional status, and our genotype, nutrigenomics should enable individuals to manage better their health and well-being by precisely matching their diets with their unique genetic makeup."

What is Nutrigenomic Testing?

It is important in this day and age to address all of the contributing factors that lead to non ideal health conditions. One clear, definitive way to evaluate the genetic contribution of multifactorial disease is to take advantage of new methodologies that allow for personalized genetic screening. Genetic testing gives us a way to evaluate and address the genetic component of multifactorial health issues. Currently, tests are available to identify a number of underlying genetic susceptibilities based on allelic variations that are found in the DNA.



This testing is done utilizing single nucleotide polymorphisms, otherwise known as SNP's (pronounced "snips"). This process systematically compares genomes of those individuals with an imbalance in a nutritional pathway to the corresponding DNA of a "normal" population.

These nutritional pathways can be viewed as complex roadways. Any mutations in the pathways can be visualized as road blocks. If we are familiar enough with the roadways and the maps we can design detours to get around the road blocks. The field of nutrigenomic testing and the supplementation of nutrients help to assuage the fear of genetic testing.

While NRI's test can be likened to a detailed road map, other tests simply offer a starting point and destination, but without any of the specific information between the two points. Without these details you would not know if the route chosen has been closed, if the bridge is out, or if there is a detour that will add more time to your travel. Given only a starting and stopping point means that the rest of the trip is simply guesswork. NRI's nutrigenomic test and Methylation Pathway Analysis are designed to eliminate the guesswork in your journey to health and wellness. While other nutrigenomic tests look at isolated genes in a wide range of pathways, this test was especially developed to look comprehensively at a very critical pathway in the body in such a way that Dr. Yasko is able to construct your personal roadmap to health and healing.

A Roadmap to Health Knowledge Empowers

The results of NRI's Nutrigenomic Test provide you with knowledge regarding your genetic susceptibilities. These results, in conjunction with the Methylation Pathway Analysis, serve as a personal guide to help you understand what supplements, herbs, and vitamins you can use to bypass specific weaknesses in nutritional pathways within your body.

A Message of Hope from Dr. Yasko

Over a dozen years ago, I found that the same integrative health principles I've used in guiding adults with chronic inflammation, immunological and neurological disorders could benefit children with autism. With that discovery, I stepped onto a path more complex, more demanding—and ultimately more rewarding than any I've ever known. Since then, my focus on children with autism draws on every ounce of my expertise in molecular biology, biotechnology, immunology, infectious diseases, and biochemistry. The fruits of that work are offered to you through the services and resources of Holistic Health International, LLC.

As a parent, I know that nothing is more important than restoring the health of your child. This process is not a sprint - it's a marathon, requiring great stamina. No matter the time or the distance, I pledge my assistance to all who commit to this journey. To all parents of children with autism: When you can't sleep at night for wondering when your child will be healthy, I urge you never to give up hope. Reach out to our community of families, and access these services to help on your personal RoadMap to health.

Amy Yasko, Ph.D., CTN, NHD, AMD, HHP, FAAIM

To Learn More

Dr. Yasko's program and services are available to families, as well as individuals, with a wide range of chronic health issues. We encourage you to undertake the program and testing with the help of your practitioner and/or physician. To learn more about our available products and services, please go to: www.holisticheal.com or for a more comprehensive overview please visit www.holistichealth.com which contains links to Dr. Yasko's content site as well as her discussion group.

About Dr. Amy Yasko

Dr. Amy Yasko brings a unique array of insight, scientific knowledge, and clinical experience to her groundbreaking approach to autism and other forms of neurological inflammation. With extensive expertise in biochemistry, molecular biology, and biotechnology, Dr. Yasko has research and clinical experience in both allopathic and integrative medicine, and is widely recognized for her pioneering work with RNA. Dr. Yasko's integrative healthcare practice specializes in chronic inflammation, and immunological and neurological disorders.

In her practice, she has achieved considerable success in restoring health and halting the effects of a range of debilitating conditions, including autism, CFS, ALS, MS, Parkinson's disease, Alzheimer's disease, SLE, Myasthenia gravis and autism. Most recently her primary focus is on her program to help reverse autism. The recipient of the CASD award for RNA Research in Autism, Dr. Yasko is the author of several books, articles and videos on this topic and has presented at numerous conferences on autism. She lives in Maine with her husband and three children.



Homeopathy, Autism and The Houston (Sequential) Homeopathy Method

By Julianne Adams, Lynn Demartini, Cindy Griffin and Lindyl Lanham

Homeopathy is a 200-year-old system of natural, complementary and/or alternative medicine which aims to help the body detoxify and heal itself. Homeopathic medicines are naturally occurring substances derived from vegetable, animal and mineral sources, which are prepared through a series of dilutions to make the “homeopathic remedy.” These remedies can support the body’s own natural detoxification and healing processes to eliminate the symptoms as well as the causation of any illness, and has shown to be effective in most physical, behavioral, developmental and emotional conditions.

The word “homeopathy” (Gr. *homoeios* – “similar” and “pathos” – suffering) reflects the central principal of the “Law of Similars” or “like treats like.” In other words, any crude substance can create a very specific set of symptoms in a healthy person, and that same substance, in a highly diluted form (the homeopathic remedy) can eliminate that same specific set of symptoms in a sick person. The homeopath applies the Law of Similars by noting of all the specific symptoms presenting in a sick person, then chooses the “most similar” homeopathic remedy or remedies needed to help that client heal.

This single-remedy approach is what is termed “classical” homeopathy, and is most commonly used in the US. Its principles are the starting place for other homeopathic methods, as it explains how the remedies work, and what remedies work for what conditions.

Homeopathy has millions of successes worldwide with chronic and acute illness. Homeopathic remedies are commonly available over the counter, without prescription, and at many health food stores and pharmacies. For chronic illness, however, a professional homeopath should be consulted.

Is Homeopathy Safe?

Yes, homeopathy is safe for all ages and, with professional oversight, is safe during pregnancy. The built-in safety factor is a result of the process of dilution used in the making of a remedy. By the time a remedy reaches a 12C or 24X potency (diluted 1:100 serially 12 times or diluted 1:10 serially 24 times), there is no longer any biochemical substance remaining in the remedy. The dilution process eliminates any potential to add to the person’s body burden or to cause any side-effects.

For this reason, many people who are sensitive to the side-effects of many pharmaceuticals or even supplements or herbal medicine, often use homeopathic remedies as an alternative.

What is Sequential Homeopathy?

Sequential homeopathy is the basic framework around which the Houston Homeopathy Method for Autism is built.

Illness is not just caused by a simple exposure to a particular pathogen — if it were, in a party where one person has a cold, everyone would “catch” that cold. Homeopaths believe all illness is a result of a build-up of layer upon layer of toxins, pathogenic bacteria, viruses, emotional and physical traumas and events. In chronic illness, such as autism and its many concomitant symptoms, this is particularly true. As a chronic health problem, there is not one “cause” of autism but many different layers of contributors.

Sequential homeopathy seeks to use homeopathic remedies to “clear” or detoxify each insult to the immune system in reverse chronological order. It allows the system to cleanse and heal itself one layer at a time, rather than trying to tackle all the problems at the same time. This unlayering is accomplished through use of homeopathic remedies specific to each event’s components. The remedies are chosen based upon the person’s individualized “timeline” of personal history, inherited weaknesses, as well as by observing current symptoms, month by month, layer by layer.

What is the Houston Homeopathy Method for Autism (HHM)?

The Houston Homeopathy Method has been uniquely developed at the Homeopathy Center of Houston by learning from biomedical research in autism. As more research is completed, and more is understood about the contributing or causal factors of autism, as well as the biochemical and physiological problems behind the stereotypical behaviors of autism, the HHM has grown to address each newly discovered aspect. The practitioners apply homeopathic principles to address the behavioral as well as the physical issues. This focus on learning from the biomedical research in autism sets the method apart from other methods of application of homeopathy — and offers a drug-free alternative and/or supplement to compatible biomedical interventions for autism.

The HHM uses the framework of sequential homeopathy to systematically work back through past illnesses, vaccines, drug suppression, etc., allowing the body to unburden itself of its past insults. Around this framework the HHM uses many combinations of remedies to daily support weak areas, such as chronic inflammation, detoxification, digestion and overall immune function, as well as focusing on specific pathogens as indicated by the client’s symptoms and behaviors at any given time. Homeopathy Center of Houston has developed many proprietary combination remedies that are individually recommended for each person’s physical problems of autism, such as gut dysfunction, inflammation, dysbiosis, constipation, diarrhea, gut pain, etc. Still, other combinations focus on developmental or behavioral symptoms, such as anxiety, sensory disturbances, cognition, speech issues, obsessions and compulsions, tics, aggression, self-injury, etc. Through the framework of biomedical research, addressing causation with sequential homeopathy, and supportive remedies to speed healing and remediate symptoms along the way, HHM forms a systematic, individualized, cohesive and comprehensive approach to autism — all without drugs.

Can I do Homeopathy and Biomedical Interventions Together?



Homeopathy can be safely used alongside biomedical interventions, including some drugs and supplements without interfering with their effectiveness. The HHM encourages use of some supplements which work very well with it, and avoidance of a few that interfere with HHM.

Some biomedical detoxification approaches actually work better when supported with homeopathic remedies, as the remedies can open up the detoxification pathways for more efficient elimination of the toxins.

However, some drug interventions such as the “anti-” drugs (i.e. Anti-biotics, antivirals, antifungals), may be detrimental to the effects of homeopathy, as homeopathy seeks to use the body’s own immune system responses (“symptoms”) to eliminate pathogens and toxins, while drugs seek to eliminate those symptoms through chemical suppression. Homeopathy depends upon those symptoms to carry out detoxification, balance and healing of the overall system – permanently restoring well-being and overall good health.

What about “non-responders” or older kids?

There are many children who have been slow or non-responders to other biomedical interventions and still had measurable improvements with the HHM. Some have fully recovered through the HHM, and no child is ever “too old” to benefit. We have worked successfully with adults as old as their late 20’s, and newly diagnosed, very young children. While the older children may respond more slowly, any age can benefit through the sequential “clearings” as they detoxify and improve health.

Is Homeopathy only for autism?

Not at all! Any illness, acute or chronic, minor or serious, as well as injuries can respond well to homeopathy. While autism is the area of focus and a passion at the Homeopathy Center of Houston, the center is a general practice with four practitioners. This eliminates long waiting lists, and allows the flexibility to address immediate minor illnesses and concerns of both our clients with autism and their family members. Many adults and children with a myriad of health issues have been helped, from ingrown toenails and colds to diabetics with severely infected wounds, to autism. Allergies, autoimmune, digestive issues and much more have been eliminated through homeopathy in all ages.

What about traveling to the Center?

Most of our clients prefer phone consultations. We use modern internet technology such as digital photos and videos, as well as educating our parents in what we need them to watch for and report to us at our consultations. This means we can eliminate the hassles and expense of travel to Houston.

In closing...

The Houston Homeopathy Method has been improved through many years of clinical experience, and continues to improve through research into the many facets, behaviors and contributors to autism. Whether co-infections, toxins, vaccines, emotional or physical traumas continue to be named as “causational” to autism, the HHM continues to flex and to immediately clinically address problems of autism as soon as they are discovered. There is hope and help through homeopathy for any illness, any person, at any age — including autism!

About Homeopathy Center of Houston:

Cindy Griffin, Lindyl Lanham, Julianne Adams and Lynn Demartini bring their combined expertise in autism, homeopathy and holistic and conventional medicine together at Homeopathy Center of Houston. With dozens of fully recovered children, including two children of their own, Cindy’s son recovered from Asperger’s Syndrome and Lindyl’s son recovered from Tourette’s Syndrome, the Houston Homeopathy Method has enjoyed a 14 year long reputation of caring support and results with children with autism, PDD-NOS, Asperger’s, ADD, ADHD, as well as movement and tic disorders, OCD/PANDAS, Sensory Processing Disorders and other problems common to children on the spectrum.

Homeopathy Center of Houston provides consultations by appointment. For more information their website is **www.HomeopathyHouston.com**, and they can be reached through the Houston office at 713-366-8700.



Diagnosis autism: Now what? A Simplified Biomedical Approach

By Dan Rossignol, MD, FAAFP

Dan Rossignol, MD, FAAFP received his Doctorate of Medicine at the Medical College of Virginia and completed his residency in family medicine at the University of Virginia (UVa). He is a former clinical assistant professor of family medicine at UVa and is currently a staff physician at the International Child Development Resource Center. He is the father of two children with autism. He has authored several papers including two on the use of HBOT in autism, one on the use of urinary porphyrins in autism, and another on mitochondrial dysfunction in autism. He is a medical advisor to the International Hyperbaric Association and USAAA, and is currently involved in research to find treatments for inflammation, oxidative stress, gastrointestinal problems and heavy metal toxicity in autism.

In 2002, my older son, Isaiah, was diagnosed with autism. At the time I had been practicing as a family physician for about five years. Prior to his diagnosis, Isaiah loved to get down on the floor and spin objects, and I thought it was cool, so I helped him. He also used to shake his hands back and forth in the air for hours. When I tried to shake my hands like him, I tired out in a couple of minutes. I couldn't figure out how he could do it for hours! He had a significant speech delay and walked very late. However, despite all of these problems, I did not have a CLUE that he had autism. I remember when my wife and I went to his psychological evaluation to determine what was wrong with him. He was evaluated by a pediatric neurologist and several psychologists, and we spent the morning with him during the testing. We were then told to go to lunch while the team met to determine a diagnosis.

I remember as we sat in McDonalds eating French fries and cheeseburgers that my wife and I discussed that maybe the team would say he had "autistic tendencies." It was quite a shock to us when Isaiah was actually diagnosed with autism! For the first year after his diagnosis, my wife started looking into biomedical treatments, which I considered "quackery." I remember asking some pediatric neurologists about the gluten- free/ casein-free (GF/CF) diet and being told that NO evidence existed in the medical literature as to whether or not this diet worked. When I finally realized that I needed to look into the medical literature for myself, I discovered some studies which reported that the GF/CF diet appeared to be beneficial in some children with autism^{1,2}. Shortly after this, my second son, Joshua, was also diagnosed with autism. I now realize that God allowed us to have two children with autism to give me a new career (taking care of children with autism) and to give us the ability to help other parents who also have children with autism.

Now that I look back on things, I realize that we (me more so than my wife) wasted precious time because I didn't know what to do for my child. And I am a physician, and my wife is a nurse practitioner!

Fortunately, there are currently many resources available to parents of a child with autism such as websites, books, and conferences. However, navigating through all of these possibilities can be daunting. The purpose of this article is to empower you, as a parent of a child with autism, by providing a starting point for biomedical treatments for your child.

Initially, the diagnosis of autism or other forms of autism, such as pervasive developmental disorder-not otherwise specified (PDD-NOS, also called high- functioning autism or mild autism), will generally come from a developmental pediatrician or a neurologist. Most neurologists will perform genetic testing (including

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chromosomal analysis and checking for fragile X syndrome), an MRI scan (to exclude some type of brain structural problem), and an EEG (to look for seizure activity). An EEG is especially important because newer studies are reporting that about 60% or more of children with autism have subclinical seizure activity (subclinical means that you are not aware of this seizure activity) 3,4. We find significant improvements, especially in speech, in some children with autism when we treat seizures with medication.

After the initial diagnosis, there are specific laboratory tests that can be very helpful in either checking for other medical conditions (that could be exacerbating the autistic behavior) or defining underlying biomedical problems. Since autism is diagnosed based upon examination of the child's behavior, the actual diagnosis does not point to the underlying cause(s) of the disorder. We find that some of the core problems in autism include toxicity (including elevated levels of heavy metals, pesticides, and other chemicals)5,6, inflammation (potentially in the gastrointestinal tract and brain)7-9, oxidative stress (damage to tissue caused by free radicals, which are neutralized by antioxidants such as vitamins C and E)10, impaired glutathione production (which is the body's main natural detoxifier and antioxidant)10, and impaired mitochondrial function (which are responsible for producing ATP, or energy)11. An in-depth discussion of each of these biomedical problems is beyond the scope of this article, but we will review simple laboratory tests and nutritional supplementation that any parent of a child with autism could start and which could potentially alleviate these problems and improve autistic behaviors.

Initial laboratory testing:

In many cases, a physician will need to order these tests for you.

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 problems12. Low iron is also linked to lowered IQ13. 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 14, and iron supplementation in children with autism has been shown to improve sleep15.

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)11 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-fold16. Supplementation with cholesterol in some children with autism may be beneficial 17.

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 stress18.

Lead has been shown in some studies to contribute to autistic behaviors in some children19,20. 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 ADHD21 and autism22. Magnesium supplementation can decrease hyperactivity23 and improve certain autistic behaviors22.

Testosterone. A small percentage of children with autism have elevated testosterone24, 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 body⁵.

Urinary neopterin is a marker of inflammation and tends to reflect autoimmunity in some children with autism²⁵. Elevated neopterin often predicts positive responses to anti-inflammatory treatments.

Urinary oxidized DNA and RNA are markers of oxidative stress inside the cell²⁶, and children with elevated levels often have improvements with antioxidants.

Urinary isoprostane is a marker of oxidative stress outside the cell²⁶. 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.

Initial treatments:

There are certain treatments that parents can use to help improve certain behaviors in children with autism (and ADHD). The ideal treatment would be one that is wellstudied, proven to be effective compared to a placebo, not too expensive, safe and tolerable, and can be done at home. Not many nutritional supplements fit into this category but several do. Many of these supplements are antioxidants that help to lower oxidative stress, which is a common finding in both ADHD²⁷ and autism¹⁸. With the use of an evidence-based medicine approach, parents can get started with some simple biomedical treatments based upon the above laboratory testing and/ or the child's behaviors. For example, if oxidative stress is elevated, then antioxidants can be added. If a child has an attention problem, then supplements or dietary changes could be made that have been shown to improve attention.

Diet: Several studies have shown improvements in certain autistic behaviors, such as social isolation, communication, and overall behavior, with the use of a gluten-free/casein-free diet^{1, 2, 28}. Food additives, colorings, and preservatives can increase hyperactivity in typical children²⁹, so avoiding these products can be helpful. In children with autism, testing for food allergies and eliminating reactive foods has been shown to improve certain autistic behaviors³⁰. An organic diet can be helpful in eliminating pesticide exposures in children³¹.

A ketogenic diet can be helpful in some children with autism³². It should be noted that the use of specialized diets should be closely monitored by a physician or nutritionist.

Sleep: If this is a problem, I usually start with trying to improve sleep because autistic behaviors are usually worsened with sleep deprivation³³. One recent study revealed a defect in the ASMT gene that resulted in less melatonin production in some children with autism (this defect was also found in some of the parents)³⁴.

Several studies have shown improvement in sleep with the use of melatonin in autism^{35, 36} and ADHD³⁷. Melatonin at doses of 1-3 mg at bedtime is safe.

Multivitamin: A general moderate-dose multivitamin has been shown to improve sleep and gastrointestinal problems in children with autism when compared to a placebo³⁸.

Vitamin C: In a double-blind, placebocontrolled study, vitamin C (about 100 mg/kg) was shown to reduce stereotypical behavior (stimming) in individuals with autism compared to a placebo³⁹.

Methylcobalamin and folic acid: Two studies have reported some improvements in certain autistic behaviors with the use of subcutaneous methylcobalamin injections (75 mcg/kg, requires a prescription) and oral supplementation of folic acid (400 mcg twice a day)^{10,40}. Methylcobalamin can also be given orally.

Zinc: Deficiency has been correlated with inattention in children with ADHD⁴¹. Zinc deficiency has also been reported in autism⁴². In one study of 400 children, the use of zinc sulfate (150 mg/day that provided 40 mg day of elemental zinc) was shown to improve ADHD symptoms compared to a placebo⁴³.

Magnesium and vitamin B-6: The use of these (given together) has been shown to improve autistic behaviors, including social interaction, communication, and stereotypical behaviors²², and improve hyperactivity in some children⁴⁴. Typical doses are: magnesium at 6 mg/kg/day and vitamin B-6 at 0.6 mg/kg/day²²; sometimes higher doses are used under physician supervision.

Pycnogenol: This has been shown to increase glutathione levels in children with ADHD⁴⁵, decrease oxidative stress⁴⁶, and improve attention, coordination, concentration, and hyperactivity compared to a placebo⁴⁷. A typical dose is 1-2 mg/kg/day.

Carnitine: Deficiency has been described in some children with autism⁴⁸ and can impair mitochondrial function¹¹. In one study of children with Rett syndrome, L-carnitine significantly improved sleep efficiency, energy level, and communication⁴⁹. Carnitine has also been shown to improve attention and aggression in children with ADHD⁵⁰ as well as lessen hyperactivity⁵¹. Generally, we use 50-100 mg/kg/day of L-carnitine or Acetyl-L-carnitine (preferring the latter as it penetrates into the brain better).

Carnosine: This has strong antioxidant properties and also has been shown to decrease seizure activity. In one study, L-carnosine (400 mg twice a day) improved speech and social behavior compared to a placebo in children with autism⁵².

Omega-3 fatty acids: Deficiency has been shown to increase hyperactivity, conduct problems, anxiety, and temper tantrums in typical children⁵³. Infants not receiving omega-3 fatty acid supplementation in breast milk or infant formula are about 2-4 times more likely to develop autism⁵⁴. Several studies have demonstrated improvements with the use of omega-3 fatty acids in children with developmental coordination disorder⁵⁵, ADHD⁵⁶, and autism^{57,58}. Omega-3 fatty acids can also have anti-seizure effects⁵⁹. I usually recommend about 800 mg of EPA and 800 mg of DHA (sometimes higher), which is the approximate dose used in a recent double-blind placebo-controlled study of children with autism showing improvements in hyperactivity and stereotypical behavior⁵⁸. I also generally recommend starting antioxidants before omega-3 fatty acid supplementation.

Even though these treatments are available without a prescription, it is best to be under a physician's supervision when using these supplements and implementing significant dietary changes. Furthermore, a physician may be required to obtain certain laboratory tests and methylcobalamin injections. However, the supplements listed in this article are generally well-tolerated and can be helpful in improving certain behaviors in children with autism and ADHD. I would recommend sitting down with your child's physician to discuss these potential treatment options. May God bless you and your child as you journey together towards improvements and, I pray, eventual healing.

Table 1

Doses of antioxidants and other supplements (based on the studies reviewed):

Vitamin C: 100 mg/kg/day Acetyl-L-carnitine: 50-100 mg/kg/day L-carnosine: 200-400 mg twice a day Pycnogenol: 1-2 mg/kg/day Methylcobalamin injections: 75 mcg/kg 2-3 times per week Folic acid: 400 mcg twice a day	Omega-3 fatty acids: approx. 800 mg/day EPA and approx. 800 mg/day DHA Zinc: 20-40 mg/day of elemental zinc Melatonin: 1-3 mg, 30 minutes before bedtime Magnesium: 6 mg/kg/day Vitamin B-6: 0.6 mg/kg/day
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Helping Your Children Excel with Omegas

By David Steinman

Helping Your Children Excel in School

Most mothers know that children need to eat right and get plenty of sleep in order to do well in school. But, getting children to eat nutritionally rich food is one of the biggest challenges every mother faces. That's why health-savvy moms are now buying children's nutritional supplements, especially Omega-3 DHA.

Studies show that Omega-3 fatty acids are not only great for the heart, but they also may support a child's memory, focus, and learning.

Understanding the ABCs of Omega-3s

Before you run to your local health food store, there are some things you need to know about Omega-3 fatty acids.

There are three types: ALA (Alpha-linolenic acid), DHA (Docosahexaenoic acid), and EPA (Eicosapentaenoic acid). Fish oil and cod liver oil are rich sources of the two most important fatty acids, DHA and EPA. The body converts ALA, which is found in flaxseed and various vegetable oils and nuts, into DHA and EPA.

Omega-3s are essential fatty acids (EFAs). That means two things: the body can't produce it so it has to be part of the diet, and it's critical for staying healthy.

In the 1970s, scientists started to study the health effects of Omega-3s when they suspected a connection between the low heart disease rate of the Greenland Eskimos and their diet of cold-water oily fish. But a healthy heart was only the beginning of the story. Numerous studies now indicate that the benefits of DHA and EPA are far more extensive than heart-health, and play an important role throughout your child's life.

From Infancy to Early Adulthood Your Children Need Omega-3 Fatty Acids

For infants, DHA plays an important role in the development of their brain, eyes, and nervous system. This isn't too surprising since the retina of the eye consists largely of fatty tissue, and DHA makes up 20 to 30 percent of the brain.

When children are toddlers, EPA and DHA can help improve their vision and cognitive and behavioral development. And, once your children enter school, DHA remains a key component to their success as it supports their memory, focus, and cognitive development.

Of course, as teens and young adults, DHA continues to play an important role. Recent studies have found that it may support hormonal and sexual health, help mood disorders like depression, and protect their heart.

New studies are under way to confirm whether or not EPA and DHA are effective in preventing, or reducing symptoms of, asthma, the leading chronic illness in children, and ADHD (Attention Deficit/Hyperactivity Disorder) which, according to the Centers for Disease Control and Prevention, affects at least 4.4 million children.

Getting Enough DHA Into Your Children's Diet

Children are fussy eaters, so it's easy for them to become deficient in DHA and EPA. The typical American diet doesn't help either. It's loaded with Omega-6 fatty acids (vegetable oils such as corn and sunflower, and animals raised on grain, instead of green vegetation), trans-fatty acids from fried foods, and hydrogenated oils, all of which interfere with the conversion of ALA to the much needed EPA and DHA.

One possible solution is to buy Omega-3 fortified food products. There's certainly a wide variety to choose from; eggs, dairy products, cereals, cereal bars, peanut butter, and infant formulas. But do they contain enough Omega-3s? There is no U.S. recommended daily allowance, but some experts recommend getting anywhere from 500 to 1,800 milligrams a day of EPA and DHA, plus 1,300 to 3,000 milligrams a day of ALA. So while fortified foods may contribute, they don't contain enough to make up for a diet that's low in Omega-3s.

The easiest and most effective way to get your children to consume enough Omega-3 fatty acids is with a dietary supplement. For a number of years health food stores have carried fish and flaxseed oil in liquid and capsules; okay for adults, but the unpleasant taste and smell makes them unsuitable for children.

New Omega-3 DHA brands made exclusively for children are available now and they come in kid friendly fruit flavors.

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The Benefits of working with a Chiropractor

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Board Certified Chiropractic Neurologist

It is shocking to see that little attention has been placed on one of America's fastest growing healthcare professions as an adjunctive procedure for helping those with autism. Growing evidence is now supporting that this ever expanding profession is gaining its popularity amongst those families with an autistic member as a result of its various benefits. Is it the "cure" that you and everyone else have been looking for? No, or you would have heard about it on NBC, CNN, or some other large affiliate broadcast station, but it seems there may be a lot of promise.

Wondering what it is that may benefit those with autism? You may be surprised, but it is specific, scientific corrective chiropractic. Now the first thing that popped in your head was "well my child doesn't have low back or neck pain", and that would have been a common response. Newer research indicates that the computer network inside of your child may not be sending all of its communication signals to all of its proper areas of the body. In other words, your brain acts like a computer or a generator of electricity and it sends and receives information constantly through a tube called your spinal cord and wires called nerves. The brain, spinal cord and nerves are continuous. Most people have a misconception that nerves only perceive pain, when, in fact, only 6-10% of all nerves in the body perceive pain. The remaining 90-94% are utilized for function control like breathing, heart rate and rhythm, digestion, hearing and seeing, to name a few.

At all times the brain must communicate with the body, and the body then must relay its signals back to the brain. This operation must occur without any interruption. If the signal, which travels at 225 mph, is halted, slowed, or interrupted, the resultant effect can be a symptom at the level of disturbance, i.e. where the nerve connects to the heart, lungs, stomach, ears, legs etc. A symptom may or may not develop immediately. Unfortunately for many of us, damage may accumulate over years without any sign. Once the body reaches damage threshold, a signal or a symptom tells you that something is wrong.

The number one way a nerve signal can be slowed or halted is by having pressure on the nerve from a bone in the vertebral column or your spine. Think of stepping on a hose that is watering one of your favorite plants. The plant wilts shortly after receiving little to no water. The same happens with you and your child's spine. The simplest way to get water back to the plant is by removing your foot from the hose. The same holds true for the bone that is pinching a nerve supplying one of your child's organs, muscles or tissues.

Research and experience illustrate that the birthing process is traumatic enough to cause a spinal misalignment in your child's spine. The spinal area being addressed and researched most often with Autistic children is the atlas vertebrae, known as C1. The atlas is most commonly misaligned as a result of the twisting of the neck

during the birthing process. Don't be fooled though, c-section, suction cup, and forceps may cause even more damage to the atlas vertebrae than what is considered the normal birthing process.

In order to address the cause, we must first begin educating families on proper, safe birthing methods. Secondly, we must begin instructing families to have regular spinal checkups by a qualified corrective chiropractor (just as we have regular check ups on our teeth). The right chiropractor will help address all three aspects of autism i.e. physical, chemical and emotional stresses. They will ensure that your child's healthcare is co-managed with other appropriate healthcare team members in order to make sure that your child receives the best care possible.

Dr. Jeremiah Joseph
Board Certified Chiropractic Neurologist

<http://myjfc.com/>



Hyperbarics as it Relates to Autism

By Dr. Zayd Ratansi

A well-proven, scientific fact is that oxygen is a potent anti-inflammatory agent. It is also known that an autistic child suffers from inflammation in the brain and gut. Conventional medicine treats inflammation with anti-inflammatory drugs. This is impractical because the side effects of prolonged use of these drugs results in catastrophic damage to the kidneys and the liver.

That's where mild hyperbaric therapy (mHBT) can become an indispensable tool. With mHBT, increased levels of oxygen dissolve into the body to reduce inflammation therapeutically and non-invasively. Combating inflammation helps other biomedical interventions work more effectively, which makes hyperbarics an essential adjunct therapy.

A Few Facts About Mild-Pressure Hyperbaric Therapy

Inside a mild hyperbaric chamber, the air pressure is slightly increased to 1.3 atmospheres. At higher pressure, more oxygen is able to reach cells, tissues, organs and fluids in the body. Under pressure, the molecules of oxygen in the air we breathe are compressed more tightly than at sea level and are literally infused into body. This is considered a "hyper" (more) "baric" (pressure) environment. Thus, a hyperbaric chamber simulates a descent into a more compressed air environment, from which the body can better absorb oxygen.

Compare the oxygen when ascending a mountain, where most people struggle to catch their breath. The difficulty in breathing happens at that altitude because the molecules of oxygen are more spread apart and it becomes difficult for the body to absorb the dispersed oxygen molecules.

The Need for a Subtle Approach

For children with autism, this increase in pressure and oxygen is non-invasive and is well-tolerated in every published medical article submitted. When a child with autism is confronted with a new element in their routine, their natural instinct (even at the cellular level) is to protect itself and respond immunologically to rid itself of this unknown component. In this sense, the body may react unfavorably when from high pressure and oxidative stress. Taking this mechanism into consideration, the use of a low dose of hyperbaric oxygen demonstrates more logicity. Instead of causing a massive immunological disruption from too much pressure and too much oxygen, this subtle therapy manages to produce a substantial reduction in inflammation, increased blood flow to the brain, improved metabolism, and even reducing oxidative stress. Hyperbaric therapy enhances immune system function by causing the energy producing mitochondria in the body to regenerate, which supports the healing process.

Another thing to consider is mHBT's effect on digestion and the intestinal tract. Due to the increased presence of oxygen at the cellular level, bacteria, viruses and yeast fail to thrive; which has been shown to improve digestion. This, combined with the anti-inflammatory effect of hyperbarics on a distressed digestive tract, children can experience an improvement in the way they feel, which subsequently affects their behavior. A substantial amount of parents and their physicians have reported a significant relief of intestinal tract inflammation—an otherwise chronic discomfort experienced by many children on the spectrum. Gaining the upper hand on these physical digestion problems allows the child to move forward to other cognitive and physical tasks that will help development process. Ideally, gut issues can be controlled and poor-digestion symptoms can be limited with continued nutritional therapy (gluten-free, casein-free dieting) and hyperbaric intervention.

Why Not More Oxygen or Pressure?

Breathing 100 percent oxygen alone, without raising the atmospheric pressure, fails to provide oxygen to areas in the body in the same fashion as a hyperbaric environment. The saturation level of inhaled oxygen is very limited. It relies on the flow of oxygen carried by the red blood cells in the body and reaches a lower saturation point. Providing the body with increased levels oxygen without additional atmospheric pressure is not effectively delivering oxygen to the areas the body where it needs it the most. This is due to the body sensing increased oxygen levels, and undergoing the auto-regulatory response called vasoconstriction (constriction of the blood vessels). This response restricts excess oxygen from entering the body. However, by increasing pressure, the body does not perceive the oxygen to be a threat due to the oxygen dissolving into the plasma and reaching deep into tissue and enhancing the body's innate ability to heal and regenerate.

In autism, children have a disposition to collect toxins in their bodies and can result in a lifelong challenge. With respect to indications where there is an acute insult (i.e. stroke, concussion), higher pressure is logical to meet the severe need for a short duration. However, in static and chronic conditions, such as autism, therapy requires a continuous, prolonged treatment period. Hyperbaric therapy may become a lifelong regimen for the patient, which makes it essential to prematurely enter into a high pressure treatment protocol. Conversely, with mild hyperbaric, a lower dose of oxygen and pressure is administered that won't pose an oxygen toxicity hazard or further oxidative damage. In most cases, a significant reduction in oxidative stress is seen.

One Last Thing to Consider

Mild hyperbaric therapy is one of three therapies that has been proven to work as a biomedical intervention for autism; the other two being diet and supplements. Dr. Daniel Rossignol's work, published November 2007 in BMC Pediatrics (<http://www.biomedcentral.com/1471-2431/7/36>), "The effects of hyperbaric oxygen therapy on oxidative stress, inflammation, and symptoms in children with autism: an open-label pilot study", is an 18-patient study discussing specifically the mechanisms at work in this population. With only 40 hyperbaric sessions, "statistically significant improvements" were seen in the areas of "motivation, speech, and cognitive awareness."



In addition, Dr. Rossignol followed this initial pilot study with a double-blind, controlled trial published March 2009 in the same BMC Pediatrics journal (<http://www.biomedcentral.com/1471-2431/9/21>), “Hyperbaric treatment for children with autism: a multicenter, randomized, double-blind, controlled trial”. This work definitively concluded that “treatment at 1.3 atm and 24% oxygen for 40, one-hour sessions demonstrated significant improvements in overall functioning, receptive language, social interaction, eye contact, and sensory/cognitive awareness compared to children in the sham group.

Given the facts and the mechanisms at work in the autism population, hyperbaric therapy is not only worth considering, it is a gateway to healing.

www.oxyhealth.com

The Basic Understanding of a Gluten-Free/Casein Free Diet

By Sueson Vess, Author of *Special Eats Simple, Delicious Solutions for Gluten-Free & Dairy-Free Cooking*
By Betsy Hicks, Diet Counselor

The gluten-free and casein-free diet, frequently called the GFCF diet, eliminates gluten (a protein found in certain grains) and casein (a protein found in all dairy products).

Foods can trigger a multitude of health concerns even for healthy individuals. When the body is already compromised due to autism spectrum disorders the “wrong” foods can aggravate an already stressed immune system and manifest new conditions including:

- Food intolerances
- Allergies
- pH imbalance
- Yeast overgrowth
- Bacteria
- Auto-immune disorders

Elimination of these “wrong” foods through the GFCF diet will help minimize or even eliminate these conditions.

Following the GFCF diet may also eliminate a condition known as the “opioid effect,” which occurs when morphine-like peptides cross the blood/brain barrier. Symptoms may include:

- Hyperactivity
- Moodiness
- Periods of unexplainable giggling
- “Spaced-out” feeling
- Poor memory
- Sleep problems
- Poor organizational skills
- Inability to multi-task
- Constant hunger
- Lack of urine/stool control
- Craving for only gluten and casein
- Extreme “picky eater”



When properly implemented, the GFCF diet helps to heal the digestive tract.

GFCF is more than simply replacing gluten and dairy with substitute ingredients. Making the necessary dietary changes provides the opportunity to improve your entire family's diet and health by eliminating toxic foods, adding nutritious whole foods and learning to plan and prepare healthy meals.

Understanding Gluten and Casein

In order to effectively eliminate gluten and dairy from your diet, it is important to know exactly what these two symptoms are and in what foods they can be found.

Gluten

Gluten is a protein found in:

- Wheat
- Barley
- Rye
- Oats
- Bulgur (cracked wheat)
- Couscous
- Durum
- Einkorn
- Faro
- Graham
- Kamut
- Matzoh, matzo
- Semolina
- Spelt
- Triticale (wheat/rye crossbed)

Gluten-Free Grains, Starches and Flours

- Amaranth
- Arrowroot
- Bean Flour (pinto, gar-fava, garbanzo, lentil, etc.)
- Buckwheat
- Corn
- Millet
- Montina
- Nut flours: almond, hazelnut, etc.
- Pea flour
- Potato flour and starch
- Quinoa
- Rice (white, brown, wild, black and sweet rice)
- Sorghum
- Soy
- Tapioca
- Teff

*although oats do not contain gluten, conventional oats in the United States are grown, processed and packaged in wheat-contaminated environments. Recently, a number of certified gluten-free oat products have become available. To maintain a GFCF diet, use only certified gluten-free oats available online and some specialty food stores.

The above Gluten-free grains, flours and starches are allowed on a gluten-free diet. However, each person may have additional unique allergies. Intolerances or sensitivities to a particular grain. It is important to monitor your diet; keep a journal of foods that are added and any reactions to help identify potential problems.

Hidden Sources of Gluten

You must become excellent food detectives and label readers. Gluten is more than bread and pasta-there are many foods that contain gluten. Gluten may be an ingredient in salad dressings, marinades, sauces, soups, broths, candy, snack foods; basically any prepared food. Recheck labels when you shop because manufacturers often change ingredients.

Wheat and other glutes may also be concealed in ingredients called seasonings and flavorings, modified food starch, malt, imitation bacon and seafood. If the label is unclear, contact the manufacturer to confirm whether the product is gluten free.

Casein (Dairy)

Casein is a protein found in all dairy products from cow, sheep, goat and buffalo, including milk, butter, cheese and yogurt.

Casein-Free Options

- Rice milk
- Nut milks: Almond, Hazelnut
- Hemp (a seed, not a nut)
- Coconut milk
- Vegan cheeses

Yogurt and frozen ice cream substitutes can be purchased or made using GFCC non-dairy milks.

Potential Sources of Casein

The following ingredients always contain dairy:

- Casein
- Caseinate
- Ammonium caseinate
- Potassium caseinate
- Curds
- De-lactosed whey
- Lactalbumins
- Lactoglobulins
- Lactose
- Nougat
- Rennet
- Whey

The following ingredients do not contain dairy:

- Calcium lactate
- Calcium stearoyl lactylate
- Cocoa butter
- Cream of tartar
- Lactic acid (however, lactic acid starter culture may contain milk)
- Oleoresin
- Sodium lactate
- Sodium stearoyl lactylate

Hidden Sources of Dairy

Dairy is more than milk, butter, yogurt and cheese. Like gluten, many foods contain dairy, even so-called “nondairy” substitutes. Dairy may be an ingredient in salad dressings, sauces, soups, broths, candy, snack foods, processed meats, margarine, non-dairy dairy substitutes, soy and rice cheese and sherbet. Recheck



labels when you shop because manufacturers often change ingredients. Dairy may be concealed in ingredients called artificial butter flavor, caramel color, seasonings and natural or artificial flavorings. As with gluten, if the label is unclear, contact the manufacturer to confirm whether the product is dairy free.

Medicine, Supplements and Personal Care Products

Over-the-counter and prescription medications, as well as vitamins and supplements, are potential hiding places for gluten and dairy. Check with your pharmacist or the product manufacturer to confirm safety of a specific product. Immunizations and flu shots may contain eggs or contaminants. Personal care products and cosmetics may also be sources of hidden ingredients.

Re-Think The Way You Look At Food!

Food is an unquestionable priority. For those whose health is compromised by food intolerances, food is medicine. Everything we eat has a direct effect on our body, which is why it is extremely important to make healthy cooking and eating a priority.

How to Begin Following the GFCF DIET Make gradual changes; take it one step at a time

Remove...

Replace with...

- Step 1. All gluten and dairy containing snack foods.
- Step 2. Processed foods
- Step 3. Sweetened beverages, juices, soda, dairy especially anything with high fructose corn syrup
- Step 4. Dairy (including casein) from diet; maintain this diet for a minimum of one week before making more changes
- Step 5. Gluten and dairy from diet
- Step 6. Gluten and dairy from diet plus eliminate soy, corn and remove or greatly reduce sugar
- Step 7. Artificial colors and additives like MSG, nitrates, nitrates, other toxins
- Step 8. Fear

- Healthy snacks like homemade trail mix, GFCF granola bars, fresh fruit and veggies, fruit leather (pure fruit). Make it fun. Cut food into shapes or small bite-sized pieces, use acceptable dips. May use crunchy chips and GFCF pretzels.
- Nutrient-rich whole foods. Your children will not starve. If they are eating only processed foods they are already under-nourished. Keep foods simple and nutritious.
- Water, naturally sweetened drinks and nondairy alternatives. **START SLOW!** Blend cow's milk with non-dairy milk and gradually increase non-dairy and decrease dairy; dilute juices with water the same way.
- Keep gluten in the diet while your child adjusts to dairy-free foods. Keep foods simple. Find foods that your child enjoys eating.
- Prepare simple GFCF meals that are within your child's texture needs. May use GFCF mixes for cookies, and treats adding nutritious foods like pureed squash, shredded carrots and zucchini.
- Homemade GFCF meals and snacks with healthy whole foods. Use natural alternative sweeteners to replace sugar. Do not use artificial sweeteners. Save treats for special occasions rather than daily.
- Unprocessed, organic fruits, vegetables, GF grains, meats and fish. Read labels carefully.
- Gratitude and confidence — continue to seek support from others as you make these changes.

www.specialeats.com

www.JohnHicksMD.com

www.AutismHopeAlliance.org

A Message from a Pecanbread.com Counselor, on the Specific Carbohydrate Diet (SCD)

By Sheila Trenholm

The Specific Carbohydrate Diet (SCD) is a diet designed to heal the body. The gut bugs or microbes found in the intestinal tract can cause damage by fermenting or eating carbohydrates that the person's body is unable to digest. If you starve the gut bugs by taking away their complex carbohydrates (sugars and starches etc...) and use foods that are readily digested and absorbed (specific vegetables and fruits, honey etc...), the body can begin to heal. Elaine Gottschall described the connection between the gut, diet and microbes in her book "Breaking the Vicious Cycle, Intestinal Health through Diet". There are many resources available for those doing SCD. These resources include the Pecanbread Website, the internet discussion Yahoo! Group 'Pecanbread' and SCD Counselors.

The Pecanbread website is an important resource for those starting SCD. It contains information on a number of SCD topics, including: how to start the diet, doing SCD dairy free, lists of SCD legal commercial foods and supplements, information on 'Constipation and SCD' and 'SCD and Yeast' and SCD recipes. The address for the website is <http://pecanbread.com/>.

Pecanbread is also the name of the largest SCD discussion group for those implementing the Specific Carbohydrate Diet™. Many, but not all of the members, have children with ASD (Autism Spectrum Disorders). Some people have children with bowel disease or other disorders. Adults who follow SCD for their own health also contribute to this forum. Information for joining the Pecanbread discussion group can be found at <http://www.pecanbread.com/new/local1.html>.

SCD Counselors, approved by Elaine Gottschall, are listed at <http://pecanbread.com/new/counselors1.html>. These counselors can help people with various aspects of SCD, including, but not limited to: how to transition to SCD; a personalized approach based on symptoms and limitations (allergies, sensitivities etc.); meal preparation, and trouble shooting for the diet.

**For further information on SCD Counselors, please contact Sheila Trenholm at
sheilatrenholm@gmail.com**



The Specific Carbohydrate Diet and Autism

By Julie Matthews
Autism Nutrition Specialist

Diet is an important piece of biomedical intervention for autism, and the Specific Carbohydrate Diet is a helpful dietary strategy for supporting children. Beyond the commonly noted social and behavioral inhibitions, many children with autism have alarmingly similar physiological disturbances, and most people are unaware that many children with autism can be quite ill with symptoms including: diarrhea, constipation, sleep disturbances, infections, fatigue or hyperactivity, and skin rashes. These symptoms are signs of underlying physical problems—not “coincidence”—and illustrate how autism is a whole body disorder. These physical symptoms are caused by biochemical imbalances that also affect the brain. Addressing the general health of these children is paramount to aiding their potential and begins to get at the root of the problem.

Diet and nutrition are key foundations for improving the systemic health of children with autism. What children eat directly affects how their body and brain operate for several reasons: the chemicals and substances in foods can affect the brain, and foods can feed or starve out harmful microbes in the gut that create toxins that affect the brain. Our knowledge of the “gut-brain connection” is helpful in understanding the connection between the food we eat and the function of our brain (cognitively and behaviorally). The recent work of Dr. MacFabe at the University of Western Ontario has illustrated this gut-brain connection with autism—that the condition of the gut affects the brain. Hippocrates, the father of modern medicine said, “all disease begins in the gut.” We must remember that the foods and substances we eat are in constant contact with the gut, and of significant influence on the body. Furthermore, food provides important nutrients for healing and brain function.

Food impacts autism and the gut-brain connection. Foods such as wheat and dairy contain proteins (gluten and casein) that can create an opiate effect, as well as cause inflammation. This opiate effect can have a direct effect on the brain creating symptoms similar to morphine—foggy thinking, inattentiveness, constipation, and more. The inflammatory response can create digestive disturbances, pain throughout the body, and nutrient absorption issues. Other foods, when not tolerated, such as soy and corn can further exacerbate inflammation in the gut and cause food and microbial toxins to leak into the bloodstream—adding burden to an already taxed liver. Sugars can feed dysbiosis (imbalance of good bacteria and pathogenic yeast and bacteria organisms) common in autism. For some, all grains and complex sugars fuel the growth of bad gut bugs and the residing inflammations and toxins that result. Inflammation is important to understand and control because these pro-inflammatory chemicals (cytokines) can have dramatic effects on mood, behavior and brain function.

In order to discuss SCD or any diet, it’s important to define what we mean by diet. Diet is an intentional strategy regarding food intake. There are two main focuses of dietary intervention:

1. Remove the bad stuff—foods that are inflammatory, damaging to the gut, or feeding dysbiosis
2. Add in foods for good nutrition—supplying needed nutrients and probiotics (good bacteria)

Diet is misperceived as only involving restriction or elimination of foods, which is only half of the healing equation. Supplying the body what it needs to engage natural healing processes by adding healthy foods is critical to the success of dietary intervention.

The most common and effective diets include: GF/CF, SCD, elimination and rotation diets, Gut and Psychology Syndrome (GAPS), Body Ecology Diet, Feingold diet, low oxalate diet, and Weston A. Price.

Most “autism diets” focus on the removal of “toxic foods,” foods that cannot be processed, lead to inflammation, or feed bad “gut bugs.” For example, the popular Gluten-free and Casein-free (GF/CF) diet eliminates the inflammatory proteins found in wheat and dairy foods. Other diets remove soy, corn and other inflammatory foods. The Specific Carbohydrate (SCD) diet eliminates complex sugars and starches. We want to start here with choosing a diet and strategy of what to eliminate but remember to go to step 2—ADDING good nutrition.

We’re going to focus on one of the most common and effective diets for children with autism:
The Specific Carbohydrate Diet (SCD).

The Specific Carbohydrate Diet (SCD)

The Specific Carbohydrate Diet aims to reduce gut inflammation and aid healing by “starving out” the bad gut bugs. SCD works, in part, by eliminating the complex starches and sugars that require carbohydrate-digesting enzymes. When there is inflammation in the gut, mucous secretion can inhibit these enzymes from coming in contact with the food. This allows for these undigested molecules to be used as food for the bad gut bugs—creating more inflammation and damage—hence, the “vicious cycle” Elaine Gottschall (Author of *Breaking the Vicious Cycle*) spoke about. A variation of this diet is the GAPS diet created by Natasha Campbell-McBride, M.D. It includes the essentials of SCD, plus the addition of nutritious principles such as fermented foods, homemade broths, and cod liver oil.

When following SCD, one removes all complex sugars: all sugars except honey and fruit sugar. This includes the removal of maple syrup, cane sugar, agave nectar, brown rice syrup and more. It also involves the removal of all starches; all grains, potatoes and sweet potatoes. This diet allows meat, fish, nuts and seeds, certain beans, all non-starchy vegetables, fruit, fats and oils.

This diet is not a low carbohydrate diet, it is a specific carbohydrate diet. The goal is not to restrict all carbohydrates (such as with the Atkins diet), but to eliminate the carbohydrates that require enzymes and good gut function to process—such as disaccharides including sugars as described above and polysaccharides in starchy foods. The diet allows fruit, all non-starchy vegetables such as broccoli, kale, cauliflower, even sweeter vegetables including carrots, winter squash, and beets, and certain beans—and it’s important to get some of these carbohydrates (monosaccharides) in a form that allows for immediate absorption. I also recommend that SCD be implemented as casein-free to start (although the diet is not inherently casein-free) because of the inflammatory nature of dairy and opiate response for so many children with autism.

By removing complex starches, this diet supports good health and improvements with autism. Pathogenic microbes such as yeast and bad bacteria give off toxins that affect the brain. By removing the sugars and digestion can improve, leading to greater absorption of nutrients that support brain chemistry and function.



The removal of gluten, casein, and soy with SCD reduces the opiates that can be produced from improper digestion. Also, remember to add good nutrition and nourishing foods to supply needed nutrients.

Foods to avoid on SCD

- No grains or corn
- No potatoes (white or sweet)
- No soy products
- No sugars except honey
- No cornstarch, arrowroot powder, tapioca, agar-agar or carrageenan
- No pectin in jams
- No chocolate or carob
- No baking powder (baking soda OK)

Foods to Eat

- Vegetables (non-starchy)
- Fruit
- Fruit juice not from concentrate
- Honey
- Meat
- Eggs (if tolerated)
- Nuts/seeds and nut milks (if tolerated)
- Certain beans
- Ghee

Enzymes are very helpful with diet. Frequently, elimination diets (anything that eliminates foods such as GFCE, SCD) work by eliminating a food that can't be broken down by current digestive function—this is where enzymes are helpful. When someone cannot tolerate gluten, it is often because the partially broken down protein creates an inflammatory response or opiates. One of the functions behind SCD is removal of the starches and sugars that are not properly broken down—due, in part, to insufficient enzymes. By taking enzymes, these proteins and carbohydrates are broken down into their useable component, instead of feeding the inflammatory cycles.

Enzymes are helpful, but they are not a substitute for diet. In the case of the Specific Carbohydrate Diet, enzymes can help break down foods, proteins, carbs, and fats that can cause inflammation and inhibit digestion. Enzymes also support good health by helping to breakdown foods for better absorption of nutrients.

I have heard many positive reports from clients whose children with autism have used The Specific Carbohydrate Diet. Parents report improvements in diarrhea, constipation, gas, and other digestive complaints, as well as improvements in attention, language, and sleep. While individual results vary depending on the needs and health of the child, dietary intervention is important and SCD is a great diet to consider.

Each child is unique and requires a BioIndividual Nutrition approach. To learn more about SCD and other dietary strategies for autism, visit **NourishingHope.com**.

The Body Ecology Diet™ and BEDROK

By Donna Gates, Author *The Body Ecology Diet*

We often are asked, “What sets Body Ecology apart from other healing diets?” First of all, Body Ecology is not a diet, but a system of health and healing based on a set of timeless principles. The 7 Healing Principles of Body Ecology are based on Nature’s timeless laws and were created after extensive study into the best guidelines from healing programs such as Ayurvedic medicine, Chinese medicine, macrobiotics, the raw food diet, the blood type diet and more. There is, however, a recommended way of eating that is somewhat flexible, based on an individual’s nutritional needs.

The Body Ecology Diet is gluten-free and casein-free, but it is also sugar-free as well and because children with autism struggle from chronic systemic candidiasis (yeast) avoiding sugars is a must.

What also sets our diet apart from other diets is that Body Ecology have been promoting gut health for two decades and we’ve been teaching that probiotic or fermented foods are vital to recovery.

Today scientists have clearly documented the connection between the gut (with its large enteric nervous system) and the brain in our head. Research has also verified that the health of the digestive tract has everything to do with both brain health and physical well being. The path to wellness begins by healing the gut. Eating and drinking fermented foods and drinks every day effectively establishes a robust and diverse microbiome in a child’s intestines, an essential first step to recovery.

Because of our strong commitment to the autism community Body Ecology developed BEDROK, Body Ecology Diet Recovering Our Kids, a prevention and recovery protocol. (www.bedrokcommunity.org) BEDROK’s initial goal is to recreate, as closely as possible, a robust inner ecosystem in a child’s gut — just as Nature intended at birth — while also bringing the child’s systemic fungal infection under control and strengthening his immune system. We heal the gut, repair digestion and help the brain heal as well. We also use foods and tools like home enemas to cleanse the body from toxins.

Every Child Is Unique

Body Ecology’s Principle of Uniqueness teaches that each child is unique and it’s important that you find what works for you and your child. There is a lot of information out there about what to do if your child is diagnosed with ASD. Many people tell us that Body Ecology’s system of health and healing just “feels right” to them. The key is for you to find your own healing path. Trust your intuition. Focus on becoming spiritually, emotionally, and physically healthier and you will consistently attract solutions to you as need them.



Healing, like all of life, happens in tiny increments. The Principle of Step by Step answers the question of where to begin on the journey towards recovery. The very first steps we take to overcome the many imbalances found in a child on the spectrum is to focus on four all-important actions:

- **Create More Energy** so the body can begin to heal.
- **Correct Digestion** so nutrient deficiencies can be corrected — thereby creating more energy for the body to heal itself.
- **Conquer Infections.** They, too, deplete the body of energy as the immune system struggles to bring yeast, viruses and bacterial infections under control.
- **Cleanse Out Toxins** that deplete the body of energy to heal.

Food can become one of your most powerful weapons in the battle to heal your child from autism. Keep in mind that the powerful fermented drinks and foods on The Diet are the highlight of the BEDROK Protocol. Indeed, Young Coconut Kefir (YCK) has helped thousands of children around the world. To overcome a systemic yeast infection withdraw all forms of sugar from your child's diet but let her enjoy the sweet taste by using natural sugar substitutes like stevia, Lakanto and erythritol instead.

For much more information please visit www.bodyecologydiet.com and download a free copy of the BEDROK Quick Start Guide. This step-by-step guide will help you implement the Body Ecology Diet (BE Diet) into your family life. As you understand and practice more and more of what you learn in our free guidebook, we hope that you will want to dive deeper into healing using a remarkable diet and delicious new foods. We also encourage you to read Donna Gates' best selling classic, *The Body Ecology Diet: Recovering Your Health and Rebuilding Your Immunity*.

We wish you a journey of healing, for your child and for your entire family!

www.bodyecologydiet.com

Enzymes and Autism

By Kristin Selby Gonzalez
President, Autism Hope Alliance
Autism Diet Specialist and Sensory Integration Specialist
Mother of Jaxson, Diagnosed with Autism

When I was pregnant, I read all of the most popular pregnancy books, and I never saw a chapter called: “What to do when your child is diagnosed with autism.” They must have left those chapters out of my books.

It would seem that when your child receives a diagnosis of autism, you are suddenly expected to have a special degree in developmental disorders if you want to understand what the professionals are talking about. Honestly, I have been training in autism treatment for over 10 years now, and I still have a hard time pronouncing some of the language used in the mainstream press and books on this topic. My guess is that many of you are like me and you did not go to medical school. You just want to understand enough of the basic terminology so that you can help your child.

That brings us to the topic of enzymes. Before my son was born, the only thing I recall hearing about enzymes was that they were in my laundry detergent and household cleansers. But as I have come to see, enzymes are also a part of human biology. I soon learned that the application of enzymes for autism is a lot more complicated than getting grass stains out of your jeans. To make this easier on you, I am not going to explain how enzymes work with words I can't even spell. Instead, I am going to talk in mom-friendly terms and just give you the basics you need to know to help your child.

Digestive Enzymes

These are substances that break down the food we consume. They make it possible for us to absorb nutrients and eliminate waste. Digestive enzymes are produced by the body and can be taken as a supplement. A digestive enzyme is a great place to start when incorporating enzymes into your plan of action.

What are phenols?

It is important to know that phenols are in almost all foods we eat, however, there are certain foods that have higher levels of phenols in them. Some foods that are higher in phenols are things such as (but not limited to): bananas, chocolate, cheese, apples, grapes, and tomatoes. Phenols are also in a lot of the fruit we eat.

How do phenols affect children with autism?

Some children may experience:

- laughing at inappropriate time (at night or when something is not funny.)
- strange rashes that appear on the body
- up and down behaviors and moods
- self stimulatory behaviors
- night waking
- difficult or irregular stools (with constipation, diarrhea or undigested foods.)
- headaches
- physical symptoms such as red ears and cheeks, and dark circles under the eyes.



How are phenolic compounds detrimental to individuals suffering from phenol sensitivities?

Some experts believe that phenolic compounds can become “trapped” within the body’s metabolic cycles, affecting our various detoxification pathways.

Is there any treatment?

While it may be possible to reduce one’s consumption of the phenols and salicylate compounds found in food additives such as colorants and flavorings, phenols are relatively omnipresent in all plant-based foods. In addition to the dietary restrictions, a digestive enzyme supplement containing xylanase specific for phenol digestion may help reduce symptoms.

Are there any websites that talk about phenols and diet?

www.feingold.org

Why enzymes for Autism?

While I cannot speak for all children diagnosed with autism, I can tell you that many of the children I come into contact with, including my son, have digestive issues. I provide my son with what I believe to be the cleanest and best diet possible, and yet his body really needs supplemental enzymes for optimal digestion. Perhaps his body is unable to produce enough enzymes by itself. Regardless, he has greatly benefited from the supplemental enzymes I give him in conjunction with the dietary modifications we have made. This became particularly clear to me when I learned that the vitamins and nutrients in his diet cannot be properly absorbed into his body and brain without enzymes to break them down and prepare them for assimilation..

What is the connection between autism and digestion?

Current research has showed that the brain and body influence one other in countless ways. I believe like many others that there is a brain-gut connection. As a mom, it makes sense to me that when my child’s digestive system is not working properly he will feel poorly and act out, to make this fact known. I know from my own experience that if I am feeling ill, it is generally difficult to concentrate and process new information. More importantly, I become cranky as indigestion affects my behavior and how I cope.

My belief in the brain-gut connection was reinforced after my son’s blood tests, when I was informed that when he eats certain foods, substances are released into his blood that severely disrupt his brain function.

To understand how the brain-gut connection works, it might help to relate the experience to something that you are familiar with in your daily life. Think about how you feel when you consume a glass of wine. Do you think your brain is affected by the wine? Of course it is. Each and every substance we put into our bodies has a direct affect on how we function and feel, whether it is food, drink, or medications.

If the body makes enzymes, why supplement?

Some children on the autism spectrum, like my son, do not make a sufficient amount of enzymes to facilitate optimal digestion. When you see a child experience cramping, bloating, constipation or diarrhea, it is a clear sign that something is not working properly.

*Note to parents: look at your child's poop patterns. Look at the consistency, the color, and if there are food particles remaining. These are signs to help gauge the effectiveness of your child's digestive process.

If I supplement enzymes, does that mean my child's body will stop making them?

No, your child's body will not stop making them. You are simply giving your child's body a break, reducing digestive stress. Keep in mind, it takes up to 80% of our body's energy to digest our food. So many of our children, my son included, are working hard in other ways to rid their bodies of toxins. Reducing the stress on our children's digestive systems can be enormously beneficial to aid detoxification.

Can I use enzymes as an alternative to any special diets?

I do not recommend using enzymes as an alternative to dietary modification. I have seen with my own son that when I combine diet and enzymes, it brings the best of both worlds together.

Some diets to consider are: the Gluten Free / Casein Free Diet, the Specific Carbohydrate Diet, the Body Ecology Diet, and the Feingold Diet. For more information on these diets check out the following websites:

www.gfcfdiet.com
www.pecanbread.com
www.bodyecologydiet.com
www.feingold.org

Are all enzymes created equal?

All enzymes are not created equal. Here are some things to consider when evaluating an enzyme supplement: Is the product a broad spectrum enzyme? Does it address different pH and temperature ranges? How are the ingredients in the formula measured? (Some companies measure their product in weight, which tells you nothing about the potency of the ingredients.) Lastly, I encourage you to investigate the manufacturer. I prefer buying supplements from a company that has a high level of integrity and takes pride in their products.

Tips on how to give your child enzymes if they do not swallow capsules:

Open the capsule and mix it with a small amount of water or juice, depending on what diet your child is on. Stir and have your child drink it down before the first bite of food. With digestive enzymes you will be giving the product with food, and for therapeutic enzymes you will be offering it on an empty stomach.



If your child resists taking enzymes in liquid, try opening the capsule and mix it in applesauce, pear sauce or whatever is allowed on their diet. Give it to your child all in one bite. You can do this with both digestive and therapeutic enzymes.

*Note to parents: When using any method, which requires opening a capsule, you may see some irritation around your child's mouth. This is not something to worry about and it has an easy solution. The cause: generally, such irritation is the result of the enzymes breaking up dead skin cells around the mouth. The remedy: put a small amount of olive oil on a washcloth and dab your child's lips and the corners of the mouth. This will act as a barrier.

www.autismhopealliance.org
www.enzymedica.com
www.kristinselbygonzalez.com

Progressive Approach to Enzyme Therapy for Autism

Tragically, we lost Karen DeFelice, on December 1, 2012, at the age of 51.

*Karen was the author of **Enzymes for Autism and other Neurological Conditions: The Practical Guide to Digestive Enzymes and Better Behavior**, and **Enzymes: Go With Your Gut**. She was an internationally recognized expert and speaker on digestive enzymes and digestive health, supplements and diets.*

Karen's unique style and insight led to writing a monthly column on various aspects of enzymes for a national health newsletter, and she was a frequent contributor to international magazines. Karen's enjoyable down-to-earth writing and speaking style came from personal experience with chronic health issues in herself and her family. Her non-profit educational work on the use of digestive enzymes has been used by tens of thousands of people suffering from conditions ranging from Autism to food intolerances to sensory integration disorder.

We miss you Karen!

By Karen De Felice, M. Sc.

**Author *Enzymes for Autism and other Neurological Conditions*
Mother of two sons with pervasive neurological and sensory integration dysfunctions**

In the eight years since enzyme therapy really developed a firm foundation for autism conditions, this option has both progressed and yet remained true to the initial guidelines developed through the efforts of typical families. Although enzyme therapy can be started in a variety of ways, a best bet approach follows.

First, consider enzymes with food for the fundamental use of digesting your food so you can get maximum nutrition from food as well as reduce any potential harmful effects from poorly digested food. Enzymes are beneficial no matter what diet or eating plan you follow. After all, you still need to digest any special diet food and reap the nutrition from that food. Any supplements or medications will also benefit from enzymes because you will be able to get more actual amount of the substance from what you swallow.

There are many more enzyme products available for sensitive individuals and for special eating plans. The wide variety of enzyme products to choose from today simply were not available as an option either years ago.

Taking enzymes regularly with food for a couple months will help with gut healing and correcting problems related to poor gut health. After that, see what symptoms or issues may be 'left over' and focus on avenues that deal with those issues.

One issue that is commonly left over is yeast overgrowth. Yeast is tough to root out because it burrows so intensely into its host environment. Even though beginning enzymes with food can produce some relief, you



are likely to need other measures to really get the yeast under control. Enzymes taken with meals will help deprive the yeast of their food supply helping to starve them out, while you gain the nutrition making your body even stronger against it.

Adding in a yeast-targeting enzyme product between meals along with a yeast-targeting supplement or product can give you the added kick in yeast control you are looking for. Keep in mind that anytime you add something that help kill back the pathogenic yeast, you may have some die-off symptoms. The die-off symptoms can also be addressed with specific enzymes.

After you address the yeast problem, a number of symptoms may be gone, but a few are still left over. This situation plays out in a different way too. Some people may benefit and regain all their health with just enzymes for food digestion. They do not need to continue on with something else. Some people will still need more and progress to yeast-control or other enzymes between meals as well. This will be enough for a percentage of that group to gain all their health without further action. However, some folks will still need more. Typically, those that have gone through many measures and are still left over may need to consider viral problems.

Viruses are very difficult diseases. They can lie latent in the body for years before emerging, or they can slither around throughout your body in stealth-like fashion causing a various array of hard to diagnose symptoms. There may be a cycling of good health followed by unexplained illness followed again by unexplained recovery back to unexplained illness over and over. People with autism or viral problems may appear 'less autistic' or healthier when they run a fever. When the fever goes away, the problems return.

If you are dealing with unexplained left over symptoms that nothing really helps with, consider a viral problem. There has been great success with using short-term, higher-doses of particular enzyme products to help with viral problems in both autism conditions as well as in the general populations. The program is known in general as the Virastop program, although other products with similar enzymes may be helpful.

Although you can start any enzymes in any order, this approach to enzyme therapy is a progressive one where each step builds upon and supports the next. First, take enzymes for food digestion for across the board health improvement. Then, if you have left over issues, take enzymes between meals as well to focus on those additional issues. Then, if you still have left over specific health concerns, look into a specialized program for that need.

This supports a low-n-slow yet very progressive approach that will address a wide range of digestive and health problems in an efficient manner.

www.enzymestuff.com

The Value of Attending Autism Conferences

By Lisa Ackerman, Founder and Executive Director
By Wendy Fournier, President, National Autism Association (NAA)

From Lisa Ackerman, TACA Founder & Executive Director

TACA was established in 2000 to support families living with autism. A key concept behind TACA was the goal of providing Real Help Now to families living with autism. Two TACA programs that fulfill that goal are the one day Real Help Now Conference and the TACA Parent Mentor program. These two important programs assist families living with autism by providing guidance families need from “autism veterans” – sage parents who can remember what it’s like to feel lost, confused and alone.

The TACA Real Help Now conference provides information geared toward helping families help their child, and features speakers who provide practical and applicable information that parents can use every day. At TACA, we work with these professionals to deliver a message of how parents can take positive steps on a daily basis to address their child’s needs.

Parent Mentors provide ongoing support once the Real Help Now conference is over. Mentors are available to meet with parents face to face, as well as over the phone. Additionally, we deploy TACA’s amazing mentors to many other autism related conferences each year. TACA mentors are there to help new and returning families with questions and emotional support. Another key role mentors play is to help families navigate a conference by answering the following type of questions: “Which sessions should I attend if my child is newly diagnosed? Where do I go to learn about IEPs? How do I know where to start – I need help creating my priority list?”

How do TACA mentors know how to answer those questions? Every mentor is a parent or loved one of a child or children living with autism. Every mentor can remember the chaos, confusion, anticipation and/or fear we felt at our first conference after diagnosis.

The Real Help Now Conference was created to help families TODAY with the issues that affect their children most. My hope for families? That they feel empowered, educated about the options available to their families, and supported by the community around them.

And hopefully, just a little less confused than I was all those years ago.

Links:

Real Help Now Conference information: <http://www.realhelpnowconference.com>

TACA Mentor program: <http://www.tacanow.org/about-taca/parent-mentor-program/>



From Wendy Fournier, President, National Autism Association (NAA):

At the National Autism Association conferences, the beautiful setting, the ability to relax and breathe among friends, and the knowledge that researchers and advocates are working for your child every day are very empowering factors. Other parents are right there at the conference to help you on-site and afterwards. Special workshops that focus on dads, marriage, safety, and more zero in on what concerns your family most. Being able to see and hear the science and strategies explained simultaneously by the presenters, who give you practical take-home tips to be implemented right away with your child, really drives the points home so that your child, your family, and your home can be healthier, happier places.

What are parents saying about TACA Real Help Now Conferences?

“Great conference! Thank you for all your hard work.” ~ parent attendee in California

“Thank you. Amazing sums it up.” ~ parent attendee in Maryland

“Thank you TACA for helping us. Thank you Lisa, all the wonderful volunteers, doctors, (volunteer name)! You guys are fabulous. Awesome conference! ~ parent attendee in Pennsylvania

“Great info! Great docs!! Great conference!!!”

~ parent who traveled 3 hours to attend a Real Help Now conference

“This was awesome. The volunteer staff was awesome! Outstanding!!”

~ parent who traveled 150 miles to attend a Real Help Now conference

For more information about upcoming conferences, please visit:

<http://www.tacanow.org>

<http://www.nationalautismassociation.org>



Generation Rescue is dedicated to the recovery of children with autism spectrum disorders by providing guidance and support to directly improve a child's quality of life. A parent found organization led by Jenny McCarthy, Generation Rescue provides medical grants to families who cannot afford treatment, is committed to training doctors on how to treat autism, and provides a resource and referral hotline to answer questions, address concerns and send additional information. In addition, a network of parent mentors spanning across 38 countries worldwide provides hope, support, referral services and resources to thousands of families struggling with the disorder.

Web: <http://www.generationrescue.org>

Facebook: [Http://facebook.com/GenerationRescue.OfficialPage](http://facebook.com/GenerationRescue.OfficialPage)

Twitter: <http://twitter.com/genrescue>

Support Hotline: 1-877-98AUTISM

Contact: info@generationrescue.org



TALK ABOUT CURING AUTISM

Talk About Curing Autism (TACA) is a national non-profit 501(c)(3) organization dedicated to educating, empowering and supporting families affected by autism. For families who have just received the autism diagnosis, TACA aims to speed up the cycle time from the autism diagnosis to effective treatments. TACA helps to strengthen the autism community by connecting families and the professionals who can help them, allowing them to share stories and information to help improve the quality of life for people with autism.

Phone: (949) 640-4401

Web: <http://www.tacanow.org>

AUTISM HOPE



ALLIANCE

The Autism Hope Alliance embodies hope for families facing the diagnosis of Autism through education, financial support and volunteerism, promoting progress now and into the future. We provide families with strategies and resources to use as successful tools on the path to recovery. Founded in May of 2009 AHA is the first non-profit foundation for Autism to emerge from the natural foods industry and is presently headquartered in Port Charlotte, Florida USA. To accomplish our goals we rely on fundraising and grants from individuals and corporations that share the same goals of recovery for those coping with Autism Spectrum Disorder (ASD). For more information go to: www.autismhopealliance.org or call 800-891-9077.



A message from our Founder

I would like to take this opportunity to express our gratitude for all who contributed to the *Autism: What the Experts Know* Resource Booklet. A special note of appreciation is extended to Kristin Selby Gonzalez, President of the Autism Hope Alliance, for her coordination of the contributions which make up the final version of this booklet, and for championing the need to educate families with the knowledge that “recovery is no longer just a hope for our children, it’s a reality.”

To everyone who generously donated their time to help the autism community in such a meaningful way, thank you. The knowledge and wisdom that you have shared in this booklet will make a positive impact on so many families who are looking for options. On behalf of the parents and caretakers who will one day read this material and be inspired by its hope and practical advice, thank you. We are putting the pieces of the puzzle together, one piece at a time.

Much appreciation,

Tom Bohager, *Founder*
Autism Hope Alliance





“One Piece at a Time...”

For more information we invite you
to visit the following additional resources:

AUTISM HOPE



ALLIANCE

Contact

The Autism Hope Alliance
18501 Murdock Circle, Suite 303
Port Charlotte, Florida 33948
www.AutismHopeAlliance.org
800-891-9077

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info@AutismHopeAlliance.org

Fundraising/Donations

donations@AutismHopeAlliance.org

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