

# ***A Starting Point***

**By Michael A. Gruttadauria, DC, DACAN**

**"For healthcare providers, we have a message that's pretty direct about autism. And the message is: The 4-year-old with autism was once a 3-year-old with autism, which was once a 2-year-old with autism."**

*- Dr. Jose Cordero, Director of the National Center on Birth Defects and Developmental Disabilities, part of the CDC*

We all need a place to start. If you have a child with Autism, this is a pretty good place.

## **Introduction**

There is (and always has been) a lot of confusion as to what Autism and the Autistic Spectrum Disorders are. This starts with a significant problem with the way Autism is classified; Autism is considered a 'mental disorder'. Since it has been classified as such since the 1940s, most physicians learn little to nothing about it. Its classification further breaks down Autism to be; an impairment in social interaction, repetitive behaviors and problems communicating. With these 'defining characteristics', it is no wonder that these children are placed into a structured special learning environment accompanied by behavior modification with little to no medical intervention.

*I understand Autism to be a biochemical and neurological problem that alters the way the brain and body develop, and eventually results in the social, behavioral and communication problems that these individuals experience. These characteristics are symptoms, and the result of a multi-system breakdown that went undiagnosed! We have let an entire generation of children slip through our fingertips and it is time to mobilize and get them back.*

If the top three defining characteristics were; under-connected brain circuitry, chronic gastrointestinal dysfunction and underlying autoimmune/inflammatory processes, we would see a very different treatment criteria established for Autism! In fact, based on the research, these three things are the true problems of Autism which eventually lead to the cognitive impairments.

## **Spectrum of Extremes**

People on the autistic spectrum are so individually different. Some are 'high-functioning', some are 'low-functioning'. Some cannot talk at all, while some talk early. Some exhibit extreme sensory-based behaviors (stims) and some don't. Some are highly intelligent; while others may have I.Q.s under 50. Some are considered 'mildly affected', and some are 'severely affected'. Some have vestibular or motor planning problems, and some are athletic. The list goes on.

With all of the differences between individuals, what do people with Autism have in common?

Whether you have a diagnosis of Autism, PDD-nos or Asperger's Syndrome, all people with autistic spectrum disorders seem to have one thing in common; a **core deficit**. Autistic spectrum disorders arise from a bio-neurological condition; a weakness in a child's biochemical and neurological development. They seem to go hand-in-hand and both need to be evaluated for and treated as early as possible! All individuals with Autism have these weaknesses in varying degrees.

Based on my clinical experience, the neurological common denominator appears to be the brainstem. The brainstem is at the center of a myriad of vital body functions that involve most of the organ systems of the body. The list of vital functions is long and encompasses many of the problems we see in Autism; including anxiety, sleep disorders, gastrointestinal problems, vestibular disorders, motor coordination challenges and more. These functions are predominantly autonomic (without conscious control) and arise from a structurally intricate system of neuronal networks. If there is a problem in the brainstem, information coming from the body to the brain is altered and from the brain to the body is changed as well.

The basis for the biochemical problems is found in the genes. Actually, this is an interesting and sometimes confusing concept. When people talk about genetics, they are usually referring to the 'written in stone' aspects of who we are. For example, we are genetically predetermined to have a certain hair color, eye color and body type. However, this is not the area of genetics associated with Autism. A specific chromosomal abnormality can be identified when a disorder is considered genetic. For example, an extra chromosome 21 causes Down Syndrome. To date, there has not been a clear 'genetic defect' that accounts for Autism.

So how can there be a genetic problem if there are no chromosomal defects? The answer lies in a relatively new field called Epigenetics; the environment's impact on our genome. There have been changes to our genes as a result of our environment changing and sometimes these changes can cause sickness and disease. These changes are very commonly seen after exposure to certain toxins; like heavy metals, pesticides and plastics.

Your genes (DNA) are actually working in every cell in your body every second of the day, guiding all the cellular activities that make up your chemistry. Altered function in your DNA will cause an alteration in your biochemistry, which leads to altered human function. This is the case in Autism.

## What Can I do?

### Mainstream vs. 'Alternative' Therapies

Therapies are usually considered 'mainstream' when they are recommended by a medical doctor and have research behind them. Due to the aforementioned situation outlining the classification of Autism and the mental characteristics associated with it, any therapy outside of psychological intervention, learning and behavioral approaches are considered 'alternative'! This must change immediately, as anything designed to treat the CAUSE of the problem is not considered a mainstream therapy.

Most intervention approaches for autism are education-based, and teach scripted behaviors that have limited value in many real-life interactions. For example, a child may be taught a strategy for how to approach another child to engage in play. However, rehearsed strategies do not give a child the ability to participate in the spontaneous, highly fluid peer interactions of even a simple playground environment.

While they clearly have benefit, even the most widely used and most intensive 'mainstream' intervention methods have not demonstrated what is needed most: the ability to produce independence and a high quality of life for people with Autism. Having language and intelligence are critically important, but they are not enough. Unfortunately, even those children who speak well and do well in school are at high risk for failure in life.

The National Autistic Society (NAS) of Great Britain conducted a study of high functioning adults with Asperger's Syndrome and Autism in 2001. The researchers followed hundreds of young adults on the autism spectrum that had high IQ's and good language. 50% of these bright individuals went on to higher education after high school. Yet, at the time of the study:

- Only 12% were employed
- Only 3% could live independently
- Over 65% had almost no social contact outside of their family
- None were married or involved in a significant emotional relationship

In my opinion, 'mainstream' evaluation and treatment of ASDs are archaic, and the prognosis for quality of life for people on the spectrum continues to remain poor.

The only acceptable approach involves a clinical intervention program that addresses the debilitating core deficits of autism. If you can resolve the bio-neuro dysfunction, *more normal* neurological organization happens. Neurological organization is a physiological condition that describes the maturing connections and activities of the brain. This orderly progression begins around the 12<sup>th</sup> week of embryological life and reaches its maximum potential at approximately 6 to 7 years of age. The highest center in the brain, the cerebral cortex, will eventually develop *laterally* and create responsibilities for each of its hemispheres. This laterality is critical to sensory function and language, and supersedes all other neurological development. When it occurs properly, the left or right cortical hemisphere becomes dominant and a person demonstrates handedness—a preference for using his/her right or left hand.

This usually signifies that all lower neural requirements have been met. It is no wonder that most children with Autism have mixed-handedness! The process of neural organization is an interdependent continuum: if lower levels are incomplete, all succeeding higher levels are affected. Getting this process "on track" can allow for cognitive and behavioral development to take place.

### **Your child has their own unique potential.**

You and everyone who works with your child must believe in his ability to learn, grow and have a bright future. This is a fight for your child between you and Autism. With early, appropriate and intensive intervention, most children experience improvement, ranging from mild changes to complete recovery. The degree of recovery a child experiences depends primarily on his/her unique potential, combined with their parent's willingness to do whatever it takes.

### **What Should You Do Immediately?**

This is very straight forward: you have to increase the things that your child is not getting enough of and reduces the things that your child has too much of.

#### ***Things that usually need to increase:***

- overall nutritional content in food
- specific B vitamins
- antioxidants
- healthy fats (Omega fatty acids)
- amino acids
- probiotics
- methylation co-factors
- specific sensory stimulation
- multi-sensory stimulation
- gross motor training
- core muscle strengthening
- vestibular (balance) exercise
- fine motor training
- activities of daily living
- socialization with other children of different abilities
- exposure to new environments
- needs-based educational programs

***Things that usually need to decrease:***

- environmental toxins
- conventional household cleaners
- wheat in the diet
- dairy products
- other potential food allergens
- excess sugar
- excitotoxins in diet
- hydrogenated fats
- exposure to construction materials

In conclusion, there is a lot that you can do to help your child. First, align yourself with a health care professional that understands the spectrum and be aggressive. Surround yourself with a group of like-minded people. Read and learn everything you can about Autism. Never give up.

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