

An Introduction To Autism

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DEFINITION OF AUTISM:

Autism is a neuro/biological/sensory/developmental disorder. Persons with autism may have trouble making sense of what they see, hear, or otherwise experience. This leads to problems with developing communication and social skills. Autism occurs in 2 to 5 out of every 10,000 to 15,000 births, and is four times more common in boys than in girls. There are currently approximately 380,000 individuals diagnosed with autism living in the United States.

HISTORY OF AUTISM:

In 1943, Dr. Leo Kanner (pronounced "Conner") of Johns Hopkins University discovered 11 children with similar symptoms of withdrawal. He chose the word "Autism" to describe this condition.

Almost immediately, theories as to the cause began to abound, the most dangerous of which was published by Bruno Bettelheim in his book, "The Empty Fortress." Dr. Bettelheim claimed that autism had a psychological causation, in that the mothers of these children, intentionally or not, did not love their children. The term "refrigerator mother" was born, referring to the fact that the mother was cold toward her child.

For many years, this was believed to be the cause of autism. Parents, desperately seeking help for their children, were told by professionals they trusted that they were the cause of the condition. This caused much needless guilt on the part of the parents.

Then, in the early 1960's, a breakthrough book written by Dr. Bernard Rimland, claimed (and proved) that autism was a neurological disorder. Since then, many successful treatments have been created based upon this premise.

Around this same time, Dr. Rimland formed a grass roots advocacy and support organization. The Autism Society of America. What started out as a local group with a few members has since grown to national proportions. There are currently approximately 14,000 members in all over the US, and local chapters in most states.

In the 1970's, pushed by politics, the term "developmental disability" was created. This term includes autism, cerebral palsy, mental retardation, and any other condition that causes a delay in academic and/or social development. Unfortunately, many insurance companies still mistakenly consider autism to be a mental illness. This keeps the children from getting services that are so badly needed to develop at a normal rate.

In 1978, a book written by occupational therapist A. Jean Ayres cast a new light on autism. Jean was working with several children who had experienced learning disabilities and she began to wonder if their problems could be sensory related. Her research to answer this question would go on to be another breakthrough for the treatment of persons with autism.

Sensory integration therapy is now a common modality of treatment.

Meanwhile, over in France, Dr. Guy Berard had begun to develop a process that would, years later, prove to be yet another advancement in the treatment of autism. This was called auditory training. Dr. Berard created this process in a desperate attempt to cure his ongoing deafness. At the time, neither he nor anyone else had any idea of the impact his research would have 20 years down the road.

SYMPTOMS OF AUTISM:

As there is currently no test that can be done to diagnose autism, diagnosis must be done based mainly on behavior observation. This makes diagnosing autism difficult. According to the Autism Society of America, symptoms of autism include, but are not limited to, the four following:

1) DISTURBANCES IN THE RATE OF APPEARANCE OF PHYSICAL, SOCIAL AND LANGUAGE SKILLS.

These skills usually develop late. Estimates are that a little over 50% of all children born with autism will never talk. Of those who do, many will only repeat back to you what you say to them. This is a condition known as "echolalia." Social skills are late to develop, if they develop at all.

2) ABNORMAL RESPONSES TO SENSATIONS. ANY ONE OR A COMBINATION OF SENSES OR RESPONSES ARE AFFECTED: SIGHT, HEARING, TOUCH, BALANCE, SMELL, TASTE, REACTION TO PAIN, THE WAY A CHILD HOLDS HIS OR HER BODY.

SIGHT: Eyes may be overly sensitive to light, requiring a certain amount of darkness or sunglasses to be worn, even indoors. Eyes may be sensitive to flashing or neon. In other cases, eyes may work too well, as in being able to individually see every separate strand of hair on a person's head from some distance away. Other eyes may require excessive amounts of light to see.

HEARING: Ears may be overly sensitive to sound. This is one of the major symptoms of autism, and one that causes the most problems. Child may react violently to certain sounds, as he or she hears them louder than other sounds, though they are really the same volume. Frequencies affected vary from child to child. While this is a problem, it can be treated. (See "Treatments for Autism.") This is even more of a problem when there is some deafness on the part of the child. Some sounds are heard too well, other sounds are not heard well enough. Or, the two ears may be interpreting the same sound differently, which causes confusion in that part of the child's brain. This could be the cause of violent reaction.

TOUCH: Child may have tactile defensiveness, which is to say that being touched is a source of pain. Parents, especially mothers, often times have a hard time coming to grips with this aspect of the child. In other cases, the child may crave touch, and no amount of touch from another person is enough. These problems can also be treated. As always, early intervention is crucial to success.

n children with autism. Many children, especially those diagnosed with Pervasive Developmental Disorder or Asperger's Syndrome (two disorders considered by some to be mild forms of autism) show deficits in balance and agility.

SMELL: Child may exhibit hypersensitive sense of smell, being able to smell things most people are not aware of. Others are unable to smell anything at all. As with all senses, it is usually a case of extremes, one way or the other.

TASTE: For the individual with autism, taste is usually a matter of texture more than it is a matter of flavor. Some can only eat soft textured foods. Other can eat only foods with a rough texture. Some crave food with lots of sodium or some other element. There is no known treatment for any of these problems at this time.

REACTION TO PAIN: Children with autism often times do not react to pain. In extreme cases, an arm or leg could be broken, and the child will not feel anything different.

THE WAY A CHILD HOLDS HIS OR HER BODY: As with the vestibular system, abnormalities in the proprioceptive system have also been reported. The most common of these is a reported need and craving for physical pressure against the body. While no one has been able to find the reason for this, the need in some cases is so strong that various devices have been created specifically to address this need. Children have been reported sleeping under pillows, between mattresses, and in England, one child was reported as only being able to sleep if the hide-a-bed was closed firmly and all the way on top of him.

3) SPEECH AND LANGUAGE ARE ABSENT OR DELAYED, WHILE SPECIFIC THINKING CAPABILITIES MAY BE PRESENT.

This is one of the most baffling and misunderstood aspects of autism. On the outside, the child may appear to be low IQ, yet at the same time, special abilities and characteristics may develop. The child may excel in math, or music, for example. These are called "savant" abilities. Researchers have been trying for years to unlock the secrets, so far with little or no success. It is because of these abilities that standard IQ tests cannot give an appropriate score to individuals with autism.

4) ABNORMAL WAYS OF RELATING TO PEOPLE, OBJECTS, OR EVENTS

PEOPLE: Persons with autism often times have problems directly communicating with other people. They may want to say something, but they never find the words to say it. Many parents have reported a sensation of feeling the child is "looking right through them." This problem is frustrating for the care giver(s), as well as for the child. At times the child may seem to be oblivious to emotion. However, it is more likely that the emotion is there, the child is simply unsure of how to express it.

OBJECTS: Child may create an unusual "attachment" to an inanimate object. For instance, child may refuse to leave home without the same piece of string every day. Or may carry some other object with him wherever he goes. Taking this object away from the child creates severe emotional distress, and should be avoided.

EVENTS: Everyday events that mean nothing to the average person may be traumatic for the person with autism. As the sensory system of the autistic individual works differently, various stimuli may cause severe sensory overload. If this should occur, the best thing to do would be to remove the child from the situation to a quiet place. At least temporarily.

TREATMENTS OF AUTISM:

AUDITORY TRAINING: As mentioned above, auditory training was created in France. This process is based on the theory that the sound sensitivities of individuals with autism work in such a way that there are only certain frequencies that the individual is sensitive to. Thus, any sounds that contain these particular frequencies appear to be much louder in volume than the other sounds, even though these sounds are all the same.

First, an audiogram is done. (This should be done ONLY by a licensed audiologist.) The audiogram is somewhat variant from the norm, in that a few super and sub sonic frequencies must also be tested. Normally, people would not be able to hear these sounds, but people with autism often can.

Next, the person is hooked up to a device called the "audiokinitron." Music from a CD is played and filtered through the audiokinitron, which filters out certain frequencies at random, based on the preceding audiogram. The music flows from the audiokinitron to the ears of the individual, who wears industrial quality headphones. The object of this exercise is to give certain hair cells within the cochlea of the ear some rest, while exercising the remaining cells. By doing this, it is hoped that all cells can be brought back into sync. The headphones are worn for one half of an hour, twice a day, four to five hours apart, for ten days. Improvement is usually seen within six months (if not sooner) following this treatment. Music must be carefully selected in that it must have the complete range of frequencies. Out of over 500 CD's tested, only 30 qualify for appropriate auditory training.

In the vast majority of cases, there has been reported "some improvement" on the part of the individual who underwent auditory training.

FACILITATED COMMUNICATION: This is probably the most controversial item in the entire field of autism. As many people with autism are unable to talk, a different method must be found to allow them to communicate. One such method is facilitated communication.

This method employs the use of a facilitator who gently holds the hand of the person wishing to communicate. The hand is held directly above a computer, typewriter, letter board, or other device which contains letters, numbers, and various symbols and words. The facilitator applies gentle pressure in the opposite direction. This gives the person wanting to communicate better motor control, allow him or her to spell out what it is they want to say.

The controversy here is obvious. Who is the one doing the communicating? Is it the person with autism, or is it the facilitator? Many cases of child abuse have been reported through this medium, all of which have been thrown out of court. Also, all studies done to date (over 40) have all concluded that facilitated communication is a non valid form of communication.

On the other hand, there are many people (and the number is rapidly growing) all over the world who swear by this technique. They claim that they have done independent tests that conclude it is the person with autism doing the communicating. Many parents fight to have a facilitator in the child's classroom. Some even succeed in getting it. Such anecdotal evidence gives one pause as to wonder whether or not this is indeed valid. Further research and studies will need to be done in an effort to convince both sides of the fence. One thing is certain; eventually, the truth, whatever it is, will prevail.

SENSORY INTEGRATION: This form of treatment is based on the premise that autism is a sensory disorder, in that what is perceived by the senses becomes distorted either on the way to the brain, or in the brain itself. Some examples of this are given above (See "Abnormal Responses To Sensations").

While there is currently no known cure for these abnormal responses, there are a few treatments available.

The aforementioned pressure cravings experienced by many people with autism can be treated simply by the application of pressure. This can be done many ways. An occupational therapist may have the person lie down on their belly while applying pressure by rolling a therapy ball up and down the back of the body while pressing down on the ball, deep into the person's back. Swimming is also good for this problem, and should be explored if possible.

Several devices have been created over the years to help deal with this problem. These devices include a squeeze machine, a pressure suit, and pressure bracelets.

For the visual problems, there are filtered lenses the person can wear. The theory here is basically the visual equivalent of auditory training. That the light the person is sensitive to is only in certain wavelengths of the spectrum. By testing the eyes to determine the wavelengths causing the problems, filtered lenses can be created that block only those wavelengths while allowing the rest through, into the eyes. Kind of like UV rays can be blocked. Filtered contact lenses can also be worn on some people.

To combat the tactile sensitivities, a procedure has been developed to lessen the pain of touch. This is called, "Brushing." You must use a surgical brush for this to be effective. What you do for this technique is brush the child with the surgical brush. This must be done in a certain way, however, or you could cause further damage to the central nervous system.

First you remove all clothes. (This is not always possible in social situations, but should be done if there is a way to do it.) Then you brush the arms and hands vigorously. Following this, you brush the legs and feet. Remember to brush all the fingers and toes, each one individually. This takes time, but also greatly improves the overall results. Brush the back of the person. Do **!NOT!** brush the face, neck, chest, or stomach! This is where the damage could be caused.

Once you have completed brushing, you must compress the joints. You do this by simply pressing the joints in the areas brushed into each other. Push the arm into the shoulder. The upper arm into the lower arm. Compress each knuckle within each hand individually. Compress the knees, feet, and toes.

By doing this, you stimulate both the tactile and proprioceptive systems. So the person will not feel as much of the pressure cravings, and it will also be easier to touch certain objects.

This process lasts an average of two hours, after which it must be repeated. Also, doing this just before bed will help insure a better night's sleep.

CONCLUSION: There is currently no cure for autism. But if we all keep in mind that nothing the person with autism does is without a reason, and we search for what that reason may be, we may be able to make life a little more tolerable for those effected. If we strive to learn what is known so far, and if we continue to produce therapies and treatments, and if we continue to do research, we may someday find a way to beat this disorder.