

## New Research

Autism is a complex disorder that typically lasts throughout a person's lifetime. It occurs in all racial, ethnic, and social groups. Family income, lifestyle, and educational levels do not affect the chance of autism's occurrence. Common conditions experienced are seizures, chronic constipation or diarrhea, mental retardation, sleep problems, eating non-food items, low muscle tone, and sensory sensitivities.

According to the American Academy of Pediatrics about 25% of children will seem to have normal development until about 18 months, after which they will gradually or suddenly:

- Stop talking (if they had begun to say a few words).
- Stop waving goodbye.
- Stop turning their heads when their names are called.
- Withdraw into a shell and seem more distant and less interested in their surroundings.

Children diagnosed with autism who seemed to develop normally but then started to show autistic symptoms have the type of autism called regression or going backward in development.

Children who show autistic symptoms since birth have the type of autism called classic which is about 75%. Indications for immediate evaluation include:

- No smiling by six months of age.
- No babbling, pointing, reaching or waving by 12 months.
- No single words by 16 months.
- No two word phrases by 24 months.
- Shows inappropriate response to affection; resists cuddling; when picked up, he arches his back instead.

1- According to the latest definition in the Diagnostic and Statistical Manual for Mental Disorders – Fifth Edition for Autism Spectrum Disorder the diagnostic criteria are:

- Persistent deficits in social communication and social interaction across multiple contexts.
- Restricted, repetitive patterns of behavior, interests, or activities.
- Symptoms must be present in the early developmental period.
- Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.
- These disturbances are not better explained by intellectual disability or global developmental delay.

2- Autism Spectrum Disorder is the diagnosis that now encompasses disorders previously referred to as early infantile autism, childhood autism, Kanner's autism, high-functioning autism, atypical autism, pervasive developmental not otherwise specified, childhood disintegrative disorder, and Asperger's.

At this time in human civilization the environment is very toxic. It's no secret that we are living in an increasingly toxic world. Babies are being born with a toxic burden from the mother. The umbilical cord blood carries not only the building blocks of life, but also industrial chemicals, pollutants, pesticides, and heavy metals such as mercury, cadmium and lead. Many studies support the role of heavy metals in causing autism.

A proposal set forth by the United Nations to ban ethyl mercury from all medicines and vaccines worldwide was held in January 2013. They were proposing a global binding treaty. For such a proposal to get that far means that many people around the world were alarmed by the use of mercury in medicines and vaccines. The U.N.'s final decision was to exclude the mercury based preservative Thimerosal from the treaty.

Once an uncommon disorder, the incidence of autism is now occurring at epidemic proportions around the world. During the 1970 about 1 in 10,000 children developed autism. Several years ago, the Jeddah Autism Center received the word that the rate was 1 in 150 for children in the U.S. born in 1994. For children born in 1996 the rate was 1 in 100, an increase of 50% between these two birth years. The rate was 1 in 88 for those born in 2005. For babies born in 2007 the rate was 1 in 50 school aged children in the U.S. according to the Centers for Disease Control

and Prevention. It is frightening to think what the rate for children being born today will be. If you think the autism rate in the U.S. is high, a recent study by South Korean and American researchers reports an astonishing high rate among Korean children of 1 in 38.

U.S. Statistics

1970s	1	in	10,000
1994	1	in	150
1996	1	in	100
2005	1	in	88
2007	1	in	50
2008	1	in	68

P.S. Robert Kennedy, Jr. nephew of President Jack Kennedy said, " During a visit to my doctor, he told me that the level of mercury in my blood was so high that a pregnant woman at this level would certainly have a child born with cognitive impairment (lost I.Q. points). Mercury contamination is a real human health threat that affects every one of us."

3- Right now the estimates in the Kingdom are 200.000-300.000 autistic individuals. Most of them are boys who will never grow up to be the head of a household. The ratio 4 boys to 1 girl impacts the male population the most. If this epidemic doesn't subside and continues to get worse, think what that means for the future. There will be fewer and fewer men capable of supporting a family or even extended members of the family. There will have to be more female doctors, dentists, airplane pilots, professors, government officials, etc. to fill in the vacancies.

4- Some interesting studies from the Autism Research Review International are:

- Studies show that viral infection during the first trimester of prenatal development is a risk factor for autism.
- Mothers who have fevers during pregnancy are more than twice as likely to have a child with an autism disorder or development delay.
- The use of antidepressants by pregnant women is associated with an increased risk of autism.
- Younger siblings of children with autism exhibit a high rate of autism-related behaviors, a new study reports.
- Several studies have tentatively linked the drug terbutaline, used to treat preterm labor, to autism. Terbutaline exposure for more than two days during the third trimester was associated with more than a fourfold increased risk for autism.
- The grandchildren of people with a history of pink disease caused by mercury toxicity are at elevated risk for autism. Survivors of pink disease, a common condition in the first half of the 1900s when parents used mercury-laden teething powders, had symptoms that included loss of speech, hypersensitivity to light, lethargy, irritability, pain, and a characteristic bright pink color of the hands and feet. One in 25 grandchildren of pink disease survivors has been diagnosed with autism.
- A study done in 2008 supports the theory that children with autism have difficulty excreting toxic elements such as mercury. "The major difference in the medical histories of the children with autism that they studied was that they had a much higher usage of antibiotics during their first 18 months of life". This is very important since a study of rats found that oral antibiotics almost completely stop the excretion of mercury. The higher rate of antibiotic use by this autistic group is consistent with data from three other studies showing an elevated use of oral antibiotics in children with autism.
- In a 2007 study, it was reported that there are higher levels of mercury in the baby teeth of children with autism.
- A 2005 study was titled "Unborn Babies Exposed to Hundreds of Chemicals". The umbilical cord blood taken from babies in 2004 in U.S. hospitals was collected after the cord was cut, harbored pesticides, consumer product ingredients, and wastes from burning coal, gasoline, and garbage. Of the total 287 chemicals found: 180 cause cancer in humans or animals; 217 are toxic to the brain and nervous system; and 208 cause birth defects or abnormal development in animal tests. Among the chemicals found in the cord blood were mercury and fire retardants. Not long ago scientists thought the placenta shielded cord blood and the

developing baby from most chemicals and pollutants in the environment. The dangers of pre- or post-natal exposure to this complex mixture of carcinogens, developmental toxins, and neurotoxins have never been studied.

- A 2013 study states that mothers who take acetaminophen (Tylenol) frequently during pregnancy may be more likely to have children with language and behavior problems. "Long-term use of acetaminophen increased the risk of behavior problems by 70% at age three. That is considerable." Acetaminophen can cause severe immune abnormalities, can depress the immune response to vaccination and is the leading cause of liver failure in the U.S. "Respected physicians consider that the connection of acetaminophen with asthma has been proven beyond a reasonable doubt." Dramatic increases in the rates of autism, asthma, and ADHD in the United States coincide with the replacement of aspirin with acetaminophen for pediatric patients in the 1980s.