

THE VOICE OF MALABAR HILLS

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Understanding Autism

by Dr Anaita Udwadia-Hegde and Dr Puja Mehta

What is autism?

Autism is a neurodevelopmental disorder affecting three key areas of a child's development:

1. Speech and nonverbal communication
2. Social interaction
3. Behavior

Autism is a spectrum!

Not all children with autism are the same. Some may be more affected and require more help than others. In addition, some other conditions, including Asperger's Syndrome, are now included in the umbrella term of Autism Spectrum Disorder (ASD).

Some facts:

- There is an increasing incidence of autism all over the world. In the US, 1 out of 68 children gets diagnosed with autism (CDC, Apr 2014).
- Autism is about 4.5 times more common in boys than in girls.
- No data is available regarding prevalence in India, but there are a large number of children as well as older people who have not been identified and diagnosed with autism owing to lack of awareness amongst parents and health providers.
- Autism is usually diagnosed before the age of three, when the parents notice that the child's speech is delayed for his age.
- However careful assessment can pick up autism earlier than that if parents are aware of the red flags for autism (highlighted later)

What causes Autism?

- Till date, no single factor has been found to be the cause for autism.
- This is inspite of the fact that autism is the most researched medical condition in the last two decades.
- A combination of genetic, immunologic and environmental factors may be responsible for autism.
- Autism may be 'primary': no associated cause or symptoms, or 'secondary' to some other pathologies such as:
 - Congenital brain malformations
 - Certain genetic syndromes - Fragile X, Tuberosus sclerosis
 - Family history of ASD - children with a sibling with ASD are at a slightly higher risk of having ASD
 - Maternal exposure to certain medications while pregnant (eg. Valproate)

Vaccines and Autism

- In a majority of cases, appearance of symptoms corresponds with the age at which vaccines are being administered ie. the first two years of life.
- This has led to increasing concern that vaccines, or the chemicals used in preparing



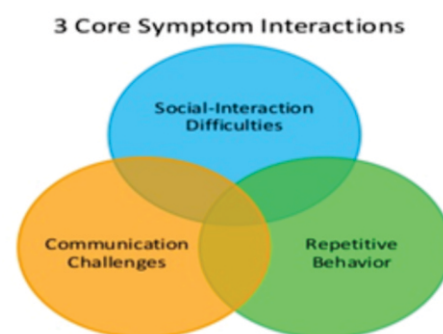
them may lead to autism.

- However, extensive research conducted over the last two decades has shown that vaccines DO NOT cause autism.
- The increasing incidence is most likely due to increasing awareness and subsequent early medical referral for autism.



Image source: hindustantimes.com

What are the signs?



Signs of Autism (Red flags)

Communication

- No babbling by 12 months, no single words by 16 months, no meaningful two-word phrases by 24 months
- Odd or repetitive use of hand symbols or language - may repeat certain words over and over
- No use of gestures to communicate - no social smile, poor eye contact, no pointing, no waving bye-bye.

Social interaction

- Prefers to play alone
- No response to name when called by 12 months - which may raise concerns of hearing loss

- Does not express affection and/or does not need to be held, hugged, touched
- Difficulty understanding other people's feelings.

Behavior

- Likes a fixed routine - eg. the same plate, same clothes, same car route everyday. Uncomfortable or upset around unfamiliar people or surroundings
- Repetitive behavior - hand flapping, spinning in circles, rocking
- Highly restricted interests, lack of pretend play - plays with wheel of the toy car instead of the whole car, obsession with door knobs, light switches etc.
- Some children also have hyperactivity, aggression (hitting self or others, biting), anger issues, temper tantrums.

Associated features

- Sensory issues: Hypo- or hyper- reactivity to sensory input - sensitive to loud sounds or bright lights, may have high pain tolerance, doesn't like certain food tastes or textures, doesn't like to be touched
- Intellectual disability - low IQ
- Delayed sitting, walking, problems with skilled movements
- Seizures - in upto 30 % of children with autism Any loss of any previously acquired speech, babbling or social skills requires an evaluation for autism

Autism can be reliably diagnosed by 2- 3 years, even as early as 18 months.



Early detection and diagnosis helps with better outcomes!

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Do children with autism have any other medical issues?

- GI problems - constipation, chronic diarrhea, reflux. Feeding difficulties are common as they prefer certain foods over others.
- Sleep problems - difficulty falling asleep, which in turn may negatively impact child's behavior
- Other psychological conditions - anxiety, depression, obsessive-compulsive disorder
- Children with autism may be a higher risk for epilepsy / seizures.

How is autism diagnosed?

- It is a clinical diagnosis
- Several standardised rating scales (eg ADOS, CARS) are available that can help your child's neurologist to confirm the diagnosis
- There is no specific blood or imaging test
- Certain genetic disorder/metabolic conditions are known to be associated with autism. Your child's neurologist/developmental Pediatrician can tell you whether your child would benefit from testing.

Your doctor may do some tests, which include:

- Formal hearing evaluation
- Basic blood tests
- Psychoeducational testing
- Genetic and/or metabolic testing if a specific cause is suspected.
- EEG - in case of seizures
- Brain MRI - in select cases

Treatment:

- ASD is a lifelong condition and there is no 'cure'. However, it is not a static condition and early intervention can significantly influence the child's development and overall outcome.
- A child's brain continues to grow after birth, with maximum changes occurring in the first 4-6 years of life.
- Timely diagnosis and intervention can make a huge impact as compared to starting after the child is much older.

Therapy:

- Picture for representation purpose only.
- Behavioral modification - working with the child and with parents to help learn skills to take care of a child with autism
 - Speech therapy - working on verbal and non-verbal communication skills
 - Occupational therapy + Sensory integration(SI) - for children with fine motor



Pictures for representation purpose only.



and sensory issues

- Extra curricular activities like swimming, cycling, dance, music etc have immense benefit in managing the behavioural concerns of children with autism

Medication:

- Your child's neurologist/developmental Pediatrician may prescribe medication in case of
- Self injurious behavior, physical aggression
 - Hyperactivity, ADHD
 - Insomnia
 - Seizures



Apps for Autism

Image source: <http://readingroom.mindspec.org>

Several paid and free apps (Avaz, JABtalk, LetMeTalk) are available that may help a child with autism communicate with family members, indicate needs, improve behavior and language.

Other treatments?

Till date, there has been NO EVIDENCE to support

these therapies:

- Gluten free/Casein free diet, Ketogenic or other special diet (behavioral improvements have been noted in some cases, but do not start these diets without consulting your child's doctor first)
- High dose B6 supplements
- Chelation therapy
- Hyperbaric O2 therapy
- Stem cell transfusion

What can I, as a parent, do for my child with autism?

- Firstly, identify the concerns in your child's behavior and seek the correct medical help.
- Start early intervention as soon as possible so that we take advantage of the plasticity of the growing brain to lay down new and correct circuits.
- Source good quality therapy especially those experienced in pediatric care
- Spend as much 1:1 time as you can with your child – may be the most important therapy of all.
- Keep your child away from electronic equipment – they tend to go into their own world with that - and play with him yourself.
- Find a good, small, easy going school, with a good teacher student ratio, so that your child gets more personalised attention.
- Integrate your child into all the everyday normal activities other children his/her age do. He/she may act a bit different, may not be so social, may not talk alot, but integration is the key to improvement.

Remember we are all different as human beings ... some very social, very talkative, outgoing, loud and gregarious ... and then we have the soft, introverted, quite, disconnected child who does not speak much. These are all ends of the normal human behavior spectrum. Let's learn to accept them and integrate all these beautiful yet different people into our everyday lives!!

Article by:



Dr. Anaita Udawadia-Hegde
 Consultant Pediatric Neurologist
 SRCC Children's Hospital,
 Managed by Narayana Health,
 Jaslok Hospital &

Research Centre,
 Wadia Children's Hospital



Dr. Puja Mehta
 Jr Consultant Pediatric Neurologist,
 SRCC Children's Hospital,
 Managed by Narayana Health

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| <p>Behavior Programs</p> | <p>Education and Learning Programs</p> |
| <p>Medications</p> | <p>Other Treatments and Therapies</p> |

WORLD AUTISM AWARENESS DAY
2nd APRIL