



Autism Spectrum Disorder is a lifelong **neurodevelopmental disorder**.

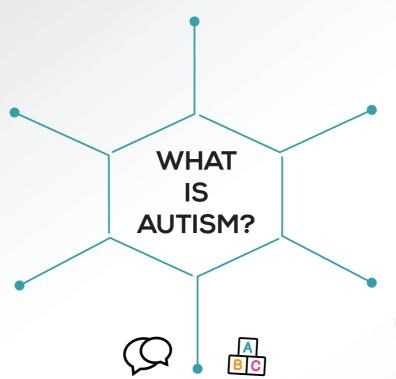
1:68 children have autism. Boys are 4 times more likely to have



autism than girls.

There are no observable physical features of autism.





Autism presents itself in early childhood & can be diagnosed by 18 months.

Autism is a **spectrum disorder.** 

MILD MODERATE SEVERE

Autism affects the development of the brain and impacts an individual's ability to communicate, socially interact and learn like a typical developing child.

CAUSES OF AUTISM There is **no exact cause** of autism yet, but there are links to **genetic**, **environmental** and **biological** factors.

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Autism is **NOT** caused by poor parenting or 'refrigerator mothers'.

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Autism is **NOT** caused by vaccinations.









## SYMPTOMS OF AUTISM

Below is a list of symptoms that children with autism may demonstrate. As autism is a spectrum disorder, not all children will demonstrate the same symptoms.

It is important to identify the symptoms as early as possible in order to provide the intervention as soon as possible.

## **DEFICITS IN LANGUAGE DEVELOPMENT**

Absence of speech or delay in speech development

Any loss of language skill at any age

Does not respond when name is called

May demonstrate unusual speech (repeating back sentences or making strange sounds)

May use rote or scripted way of speaking / may speak in a cartoon way or with a foreign accent

Difficulty in having normal back-and-forth conversations

## **DEFICITS IN SOCIAL SKILLS DEVELOPMENT**

Does not imitate adult's movements

Limited or inconsistent eye contact

Does not show interest in other children

May show interest in other children but does not know how to interact appropriately with them and may be left out

Does not demonstrate age-appropriate nonverbal communication or understand adults' nonverbal communication

Does not share interest with adults and may not look at objects when adults point to them

## RESTRICTED OR REPETITIVE BEHAVIORS

Repetitive motor movements (e.g. hand flapping or flicking, spinning, jumping, etc.)

Repetitive play (e.g. lining up, spinning items, hoarding, etc.)

Stereotypical speech (e.g. echolalia, rote phrases, etc.)

Demonstrates inflexibility in any area (e.g. extreme distress at changes, wanting to wear the same clothes everyday)

Oversensitive/undersensitive to sensory areas such as pain, sounds, lights, temperature, textures or movement. Child may persistently smell, lick or touch certain objects.

Fixated interests (demonstrated by a strong attachment or preoccupation with certain objects, interests or topics)

## **DIAGNOSIS OF AUTISM**



Parents can bring children for diagnosis for autism as early as 18 months of age.



Diagnosis needs to be conducted by clinical psychologist, developmental pediatrician, psychiatrist, neurologist or similar qualified medical professionals.



# Golden Standard for Diagnosis

The Diagnostic and Statistical Manual of Mental Health (5<sup>th</sup> edition) (DSM-5) (2-3 hour long appointment with child and family + detailed report)

# TREATMENT FOR AUTISM

••••• There is **no medical cure** for autism.

## Golden Standard for Treatment

Intensive Behavioral Treatment using the Applied Behavioral Analysis (ABA) approach.

ABA is the only teaching approach for autism supported by over **1000**journal articles based on controlled studies, post-treatment follow-up data and peer-reviewed studies.

•••• More than 40 states in the USA provide funding for behavioral therapy.

**Almost 50%** of children with autism who receive good quality ABA will be able to catch up to their typically developing peers. The other 50% show improvement in areas of independence and communication but at a gradual pace.

\*Please refer to our **ABA fact sheet** for more information on ABA.

Usage of alternative treatments need to be carefully considered in relation to its safety and effectiveness based on sound and scientific research.

Below are some alternative treatments that are **NOT** recommended due to the given reasons.

# INSUFFICIENT, INCONCLUSIVE OR CONFLICTING EVIDENCE

- X Animal-assisted therapy
- Expressive psychotherapy (e.g. Art or play therapy)
- X Gluten-free, casein-free diet
- X Music therapy
- X Sensory-based therapy (Including massage therapy)

# DANGEROUS OR HARMFUL

- X Acupuncture
- X Chelation
- X Chraniosacrial therapy
- X Hyperbaric oxygen therapy
- X Medication & Supplements
- X Weighted vests

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