

On the Uptake

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Helping Children with Autism Reach Their Full Potential, Where Are We At?

A substantial growth in research and advocacy is now informing our modern understanding of Autism, from risk factors to diagnosis and interventions.

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Autism is a life-time condition that interferes with the person's ability to relate to and communicate with others. Some form of autism affects 54 million children worldwide. Autism was once blamed on "refrigerator mothers," who did not show affection to their children. Standard practice in the 1950s was psychotherapy for mothers and institutionalization for their children. This

tragic situation was transformed through community advocacy coupled with advances in genetic and neuroscience research, pointing to the biological basis of the condition. A substantial growth in research and advocacy is now informing our modern understanding of the condition and how to intervene.

What are the risk factors?

Both genetic and non-genetic factors contribute to an increased risk for autism. Rare genetic underpinnings have been discovered in approximately 20–30% of



individuals with the condition. Further, there is significant overlap between some known genetic syndromes and autism, including Fragile X syndrome and tuberous sclerosis. The genetic factors underlying autism in some children can be recognized through genetic testing, which is typically done around the time of diagnosis. Some genetic factors may also help explain medical complications such as seizures or gastrointestinal problems that sometimes accompany autism. Environmental factors that increase the risk of autism are still poorly understood

I might hit developmental and societal milestones in a different order than my peers, but I am able to accomplish these small victories on my own time.

-Haley Moss
Artist, author and advocate



but most likely interact with genetic factors in complex ways, contributing to autism risk.

Red flags for autism and related conditions emerge early in life

As yet, a diagnosis of autism is rarely made before the child reaches the age of two to three years. But signs of ASD begin to emerge earlier around 12 months of age in some infants. The earliest red flags include limited smiles, joyful expressions, or response to name, a lack of back-and-forth sharing of sounds, smiles or other facial expressions, or delays in pointing or showing. Parents usually notice that their child is developing differently and it's important for doctors to take parental concerns seriously in order to monitor and support the child's development.

The brain develops differently

Although overt symptoms of autism become evident in toddlerhood, we know that brain development is affected well before symptoms emerge. For some children, early risk markers may be amplified by atypical interactions within brain systems and with the environment.

Other children are more resilient and their development less affected. In fact, some autism-related characteristics can be viewed on a continuum with typical behaviour, blurring the boundary between those with or without a diagnosis.

Therefore, impact of the condition varies; some individuals can lead independent and fulfilling lives, but many develop substantial medical, educational, and social difficulties that have a serious negative effect on their quality of life. The variability of the condition has led some to suggest that instead of one unique phenomenon, there are probably many 'autisms' with different underlying biological processes and developmental pathways. Although we still do not know what predicts these different developmental pathways, we know that all children have unique profiles of strengths and needs that evolve with time.

Supportive environments help children with autism reach their potential

Because autism affects people differently,

some have questioned whether searching for a 'cure' is reasonable, yet there is consensus that intervention, particularly when delivered early, reduces the impact of adverse symptoms.

Most behavioural interventions share some common principles, including the need for structure and predictability in the environment, generalization of new skills to new settings, the fostering of independence and daily living skills, and engagement of the family. Early identification and intervention in childhood builds towards fulfilling and rewarding lives in adulthood, reducing emotional and financial costs to families and to society over the long haul.

Debate persists about what constitutes a 'good' outcome for autistic people. Yet, there is agreement that their integration in society needs to build on understanding the many unique forms the condition takes in different individuals. Major advances in research are cause for optimism, offering avenues to enhance early identification and intervention, thereby addressing root causes of the



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Want to learn more on the topic?

Suggested readings:

<https://spectrumnews.org>

About Spectrum News:

Spectrum provides comprehensive news and analysis of advances in autism research. Through their work, they hope to catalyze new collaborations and perspectives on autism. Their commitment towards providing accurate and objective coverage of autism research has always been at the center of their work.

Funding for *Spectrum* comes from the Simons Foundation Autism Research Initiative (SFARI), but their team is editorially independent. The articles produced do not necessarily reflect the views of the foundation's scientific staff.

challenges experienced by people with autism, their families, and supportive communities.

Take home points for families

- Parents are most often the first to identify risk signs related to autism in early childhood. Involvement of a professional, like a family doctor, is needed to help address parental concerns.
- The brain develops differently in autism and each child has their unique strengths and special needs that evolve with time.
- Parents have an important role to play in supporting their child's development and need to be supported themselves by their community.

Take home points for clinicians

- There are probably many 'autisms' with different underlying biological processes and developmental pathways.
- The genetic factors underlying autism in some children can be recognized through genetic testing, which is typically done around the time of diagnosis.
- Most behavioural interventions share some common principles. All children with autism benefit from structure and predictability in the environment, generalization of new skills to new settings, the fostering of independence and daily living skills, and engagement of the family.