CONDITION

Autism spectrum disorder

Learn how autism can affect communication, behavior, sensory processing, and daily life, and how it is diagnosed, supported, and monitored.

WHAT IT IS
Lifelong developmental condition

BODY SYSTEM
Nervous system

MAIN SYMPTOMS
Social communication differences, repetitive behaviors, need for routines, sensory sensitivities

WHAT CAUSES IT
Complex genetic and developmental factors

HOW IT IS DIAGNOSED
Comprehensive developmental and behavioral evaluation

MAIN TREATMENT
Individualized supportive therapies and accommodations

CAN IT BE CURED?
No, it is a lifelong condition

IS IT AN EMERGENCY?
Sometimes, immediate danger or prolonged seizure

LONG-TERM OUTLOOK
Lifelong with widely varying support needs

Overview

Autism spectrum disorder, often called autism, is a lifelong developmental condition. It affects how a person communicates, interacts with other people, processes sensory information, and experiences the world. Autism begins early in development, although it may not be recognized until later in childhood or adulthood.

The word "spectrum" reflects the wide range of autistic experiences. Some autistic people need substantial daily support. Others live independently but may need help with communication, education, employment, relationships, or managing sensory overload. A person's support needs can also change over time or in different settings.

Autism is not an illness that a person catches, and it is not caused by poor parenting. Many autistic people view autism as an important part of their identity rather than something that

needs to be cured. Language preferences differ: some prefer "autistic person," while others prefer "person with autism."

Autism matters medically because early recognition can help people gain access to useful services and accommodations. Autistic people may also have conditions such as attention-deficit/hyperactivity disorder, anxiety, epilepsy, sleep problems, or feeding difficulties. Identifying these concerns can improve health, safety, learning, and quality of life.

Symptoms

Autism is defined by differences in two broad areas: social communication and interaction, and restricted or repetitive behaviors and interests. Symptoms must begin during development, but they may become clearer when social or daily demands increase.

Possible social communication differences include:

Some autistic people speak very little or do not use speech. Others have a large vocabulary but find back-and-forth conversation difficult. Speech may sound unusually formal, repetitive, or focused on preferred topics. Nonspeaking people may communicate through gestures, pictures, writing, sign language, or communication devices.

Restricted or repetitive patterns may include:

In young children, possible signs include not responding consistently to their name, limited pointing or showing, delayed communication, repetitive play, or loss of previously used language or social skills. These signs can have several explanations and do not by themselves confirm autism.

In teenagers and adults, signs may be less obvious. Some people consciously copy social behavior, rehearse conversations, or hide behaviors that help them regulate themselves. This is sometimes called masking. Masking can be tiring and may contribute to stress, anxiety, or exhaustion.

Strengths also vary. An autistic person may have strong attention to detail, deep knowledge of specific subjects, honesty, creativity, good pattern recognition, or an ability to focus for long periods.

- Limited use or understanding of gestures, facial expressions, or eye contact
- Difficulty starting, maintaining, or adjusting conversations
- A different pattern of sharing interests, emotions, or attention with others
- Difficulty understanding unspoken social rules, humor, or indirect language

- Differences in developing or maintaining friendships and relationships
- Repeated movements, speech, play, or use of objects
- A strong preference for routines or predictability
- Distress with unexpected changes or transitions
- Highly focused interests
- Unusual sensitivity or reduced sensitivity to sound, light, touch, taste, smell, pain, or temperature

Causes and risk factors

There is no single cause of autism. Research indicates that autism usually develops through a complex combination of genetic and developmental factors that affect how the brain develops.

Genetics plays an important role. Many different gene changes may contribute, and most do not act alone. Autism can occur in several members of a family, but it can also occur without a known family history. Certain genetic or chromosomal conditions are associated with a higher likelihood of autism.

Other factors linked with an increased likelihood include having an autistic sibling, older parental age, and some complications before or around birth. These associations do not mean that one event caused autism in a particular person. In many cases, no specific cause is identified.

Vaccines do not cause autism. Large studies have found no credible link between autism and childhood vaccination, including vaccines containing the preservative thimerosal. Autism is also not caused by a person's diet, parenting style, or emotional environment.

Autism is diagnosed more often in boys and people assigned male at birth. However, girls, women, and gender-diverse people may be underdiagnosed. Their traits may appear different, or they may be more likely to mask social and behavioral differences.

Diagnosis

There is no blood test, brain scan, or single questionnaire that can diagnose autism. Diagnosis is based on developmental history, current behavior, communication, and how traits affect everyday life.

For children, routine developmental monitoring helps clinicians identify concerns about language, movement, learning, behavior, and social interaction. The American Academy of Pediatrics recommends autism-specific screening at the 18-month and 24-month well-child visits, along with ongoing developmental surveillance. Screening identifies children who may benefit from further evaluation; it does not establish a diagnosis.

A comprehensive evaluation may involve a developmental-behavioral pediatrician, psychologist, neurologist, psychiatrist, speech-language pathologist, occupational therapist, or another clinician with autism expertise. It may include:

Genetic testing may be discussed, especially for a child with autism, developmental delay, intellectual disability, unusual physical features, seizures, or a relevant family history. Testing may identify a related genetic condition, but a normal result does not rule out autism.

Adults may seek an evaluation after years of social difficulty, sensory problems, burnout, or feeling different from others. An adult assessment usually reviews current experiences and childhood development. School records or input from relatives can help, but diagnosis may still be possible when this information is unavailable.

Clinicians also consider other explanations or co-occurring conditions. These may include hearing loss, language disorder, intellectual disability, ADHD, anxiety, trauma-related conditions, or obsessive-compulsive disorder. A person can have autism and one or more of these conditions.

- Interviews with the person and family or caregivers
- Observation of communication, play, movement, and social interaction
- Review of medical, developmental, educational, and family history
- Standardized autism-focused assessments
- Hearing, language, learning, and daily-living evaluations
- Assessment for other physical or mental health conditions

Treatment and management

Autism itself does not require a cure. Management focuses on communication, independence, health, comfort, safety, participation, and goals that matter to the autistic person and family.

Support should be individualized. An approach that helps one person may not help another. Services may change as a child grows or as an adult's living, education, work, or health needs change.

Speech-language therapy can support spoken language, understanding, conversation, social communication, and alternative forms of communication. A communication device or picture-based system does not prevent speech development and may reduce frustration for someone who has difficulty expressing needs.

Occupational therapy may address daily activities such as dressing, eating, writing, planning tasks, or managing sensory needs. Environmental changes can also help. Examples include reducing noise, allowing headphones, giving advance notice of transitions, using visual schedules, or providing a quiet recovery space.

Educational supports may include an individualized education program, classroom accommodations, communication assistance, or help with transitions between school stages. Adults may benefit from workplace accommodations, vocational support, coaching, or assistance with housing and daily living.

Behavioral and developmental approaches can teach communication, coping, play, self-care, and safety skills. Goals should be practical, respectful, and based on informed agreement when possible. Support should not aim to suppress harmless autistic behaviors simply to make a person appear less autistic. Repetitive movements may help with concentration or emotional regulation unless they are causing injury or preventing essential activities.

No medication treats the core features of autism. Medication may be considered for specific co-occurring problems, such as severe irritability, aggression, ADHD symptoms, anxiety, depression, sleep disturbance, or epilepsy. Benefits and side effects should be reviewed regularly. Behavioral, communication, medical, and environmental causes of distress should also be considered before assuming that behavior is deliberate.

Sleep routines, regular physical activity, dental care, and a balanced diet support general health. Highly restrictive diets and unproven supplements may cause nutritional problems or interact with medicines. Feeding concerns are best assessed by a clinician or dietitian familiar with sensory and developmental needs.

Care should involve the autistic person as much as possible. Clear explanations, predictable visits, extra processing time, reduced sensory stimulation, and written instructions can make healthcare more accessible.

Complications

Autism does not automatically lead to poor health or reduced independence. However, barriers to communication and care can make some problems harder to recognize or treat.

Possible co-occurring concerns include anxiety, depression, ADHD, intellectual disability,

epilepsy, sleep disorders, constipation, feeding difficulties, and dental problems. Some people may injure themselves during severe distress or may wander away from safe settings. Bullying, social isolation, unemployment, and difficulty obtaining suitable healthcare can also affect well-being.

A sudden change in behavior may be a sign of pain, illness, sleep loss, medication effects, stress, or an overwhelming environment. It should not automatically be attributed to autism.

Follow up

Routine follow-up should review communication, learning or work, sleep, nutrition, emotional health, safety, medications, and access to needed services. Children may need reassessment during major transitions, such as starting school or moving into adult care. Adults may benefit from follow-up when support needs, relationships, work, housing, or mental health change.

Arrange a prompt medical evaluation for loss of previously acquired skills, a major unexplained behavior change, possible seizures, persistent feeding problems, significant weight change, or worsening anxiety or depression.

Seek emergency help if the person is in immediate danger, has suicidal thoughts with intent or a plan, is severely injuring themselves or another person, or has a seizure lasting longer than five minutes. Emergency care is also appropriate for repeated seizures without recovery, serious injury, or breathing difficulty.

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