Understanding autism spectrum disorders

Autism is not a single disorder, but a spectrum of closely related disorders with a shared core of symptoms. Every individual on the autism spectrum has problems to some degree with social interaction, empathy, communication, and flexible behavior. But the level of disability and the combination of symptoms varies tremendously from person to person. In
fact, two kids with the same diagnosis may look very different when it comes to their behaviors and abilities.

If you’re a parent dealing with a child on the autism spectrum, you may hear many different terms including high-functioning autism, atypical autism, autism spectrum disorder, and pervasive developmental disorder. These terms can be confusing, not only because there are so many, but because doctors, therapists, and other parents may use them in dissimilar ways.

But no matter what doctors, teachers, and other specialists call the autism spectrum disorder, it’s your child’s unique needs that are truly important. No diagnostic label can tell you exactly what challenges your child will have. Finding treatment that addresses your child’s needs, rather than focusing on what to call the problem, is the most helpful thing you can do. You don’t need a diagnosis to start getting help for your child’s symptoms.

What’s in a name?

There is understandably a great deal of confusion about the names of various autism-related disorders. Some professionals speak of “the autisms” to avoid addressing the sometimes subtle differences among the conditions along the autism spectrum. Up to 2013, there were five different “autism spectrum disorders.” The differences among those five were hard to understand for parents trying to figure out which—if any—of these conditions affected their child.

The American Psychiatric Association attempted to simplify matters by combining the pervasive developmental disorders into a single diagnostic classification called “Autism Spectrum Disorder” in the latest edition of the diagnostic bible known as the Diagnostic and Statistical Manual of Mental Disorders. Since many people were diagnosed prior to the change in the classification system and since many professionals still refer to the pre-2013 labels, we summarize them here for your reference. For purposes of clarity, we emphasize that all of the following conditions are now encompassed under the umbrella classification “Autism Spectrum Disorder” (ASD).

The three most common forms of autism in the pre-2013 classification system were Autistic Disorder—or classic autism; Asperger’s Syndrome; and Pervasive Developmental Disorder—Not Otherwise Specified (PDD-NOS). These three disorders share many of the same symptoms, but they differ in their severity and impact. Autistic disorder was the most
severe. Asperger’s Syndrome, sometimes called high-functioning autism, and PDD-NOS, or atypical autism, were the less severe variants. Childhood disintegrative disorder and Rett Syndrome were also among the pervasive developmental disorders. Because both are extremely rare genetic diseases, they are usually considered to be separate medical conditions that don’t truly belong on the autism spectrum.

In large part due to inconsistencies in the way that people were classified, all of the above-named variants of autism are now referred to as “Autism Spectrum Disorder.” The single label shifts the focus away from where your child falls on the autism spectrum to whether your child has Autism Spectrum Disorder. If your child is developmentally delayed or exhibits other autism-like behaviors, you will need to visit a medical professional or a clinical psychologist who specializes in diagnostic testing for a thorough evaluation. Your doctor can help you figure out whether your child has Autism Spectrum Disorder and how severely they are affected.

Keep in mind that just because your child has a few autism-like symptoms, it doesn’t mean they have Autism Spectrum Disorder. Autism Spectrum Disorder is diagnosed based on the presence of multiple symptoms that disrupt a person’s ability to communicate, form relationships, explore, play, and learn.

[Read: Does My Child Have Autism?]

(Note: In the DSM-5, the latest version of the diagnostic “Bible” used by mental health professionals and insurers, deficits in social interaction and communication are lumped together in one category. We present problems with social skills separately from problems with speech and language, to make it easier for parents to quickly identify symptoms.)

Social behavior and social understanding

Basic social interaction can be difficult for children with autism spectrum disorders. Symptoms may include:

- Unusual or inappropriate body language, gestures, and facial expressions (e.g. avoiding eye contact or using facial expressions that don’t match what they are saying).
- Lack of interest in other people or in sharing interests or achievements (e.g. showing you a drawing, pointing to a bird).
- Unlikely to approach others or to pursue social interaction; comes across as aloof and
detached; prefers to be alone.

- Difficulty understanding other people’s feelings, reactions, and nonverbal cues.
- Resistance to being touched.
- Difficulty or failure to make friends with children the same age.

**Speech and language**

Many children with Autism Spectrum Disorder struggle with speech and language comprehension. Symptoms may include:

- Delay in learning how to speak (after the age of two) or doesn’t talk at all.
- Speaking in an atypical tone of voice, or with an odd rhythm or pitch.
- Repeating words or phrases over and over without communicative intent.
- Trouble starting a conversation or keeping it going.
- Difficulty communicating needs or desires.
- Doesn’t understand simple statements or questions.
- Taking what is said too literally, missing humor, irony, and sarcasm.

**Restricted behavior and play**

Children with Autism Spectrum Disorder are often restricted, rigid, and even obsessive in their behaviors, activities, and interests. Symptoms may include:

- Repetitive body movements (hand flapping, rocking, spinning); moving constantly.
- Obsessive attachment to unusual objects (rubber bands, keys, light switches).
- Preoccupation with a narrow topic of interest, sometimes involving numbers or symbols (maps, license plates, sports statistics).
- A strong need for sameness, order, and routines (e.g. lines up toys, follows a rigid schedule). Gets upset by change in their routine or environment.
- Clumsiness, atypical posture, or odd ways of moving.
- Fascinated by spinning objects, moving pieces, or parts of toys (e.g. spinning the wheels on a race car, instead of playing with the whole car).
- Hyper- or hypo-reactive to sensory input (e.g. reacts badly to certain sounds or textures, seeming indifference to temperature or pain).

**How children with Autism Spectrum Disorder play**

Children with Autism Spectrum Disorder tend to be less spontaneous than other kids. Unlike a typical curious little kid pointing to things that catch their eye, children with ASD often
appear disinterested or unaware of what’s going on around them. They also show differences in the way they play. They may have trouble with functional play, or using toys that have a basic intended use, such as toy tools or cooking set. They usually don’t “play make-believe,” engage in group games, imitate others, collaborate, or use their toys in creative ways.

**Related signs and symptoms of Autism Spectrum Disorder**

While not part of autism’s official diagnostic criteria, children with autism spectrum disorders often suffer from one or more of the following problems:

**Sensory problems** - Many children with autism spectrum disorders either underreact or overreact to sensory stimuli. At times they may ignore people speaking to them, even to the point of appearing deaf. However, at other times they may be disturbed by even the softest sounds. Sudden noises such as a ringing telephone can be upsetting, and they may respond by covering their ears and making repetitive noises to drown out the offending sound. Children on the autism spectrum also tend to be highly sensitive to touch and to texture. They may cringe at a pat on the back or the feel of certain fabric against their skin.

**Emotional difficulties** - Children with autism spectrum disorders may have difficulty regulating their emotions or expressing them appropriately. For instance, your child may start to yell, cry, or laugh hysterically for no apparent reason. When stressed, they may exhibit disruptive or even aggressive behavior (breaking things, hitting others, or harming themselves). The National Dissemination Center for Children with Disabilities also notes that kids with ASD may be unfazed by real dangers like moving vehicles or heights, yet be terrified of harmless objects such as a stuffed animal.

**Uneven cognitive abilities** - ASD occurs at all intelligence levels. However, even kids with average to high intelligence often have unevenly developed cognitive skills. Not surprisingly, verbal skills tend to be weaker than nonverbal skills. In addition, children with Autism spectrum disorder typically do well on tasks involving immediate memory or visual skills, while tasks involving symbolic or abstract thinking are more difficult.

**Savant skills in autism spectrum disorder**

Approximately 10% of people with autism spectrum disorders have special “savant” skills,
such as Dustin Hoffman portrayed in the film *Rain Man*. The most common savant skills involve mathematical calculations, calendars, artistic and musical abilities, and feats of memory. For example, an autistic savant might be able to multiply large numbers in their head, play a piano concerto after hearing it once, or quickly memorize complex maps.

**Getting an autism spectrum disorder diagnosis**

The road to an ASD diagnosis can be difficult and time-consuming. In fact, it is often two to three years after the first symptoms of ASD are noticed before an official diagnosis is made. This is due in large part to concerns about labeling or incorrectly diagnosing the child. However, an ASD diagnosis can also be delayed if the doctor doesn’t take a parent’s concerns seriously or if the family isn’t referred to health care professionals who specialize in developmental disorders.

If you’re worried that your child has ASD, it’s important to seek out a clinical diagnosis. But don’t wait for that diagnosis to get your child into treatment. Early intervention during the preschool years will improve your child’s chances for overcoming their developmental delays. So look into treatment options and try not to worry if you’re still waiting on a definitive diagnosis. Putting a potential label on your kid’s problem is far less important than treating the symptoms.

[Read: Helping Your Child with Autism Thrive]

**Diagnosing Autism Spectrum Disorder**

In order to determine whether your child has autism spectrum disorder or another developmental condition, clinicians look carefully at the way your child interacts with others, communicates, and behaves. Diagnosis is based on the patterns of behavior that are revealed.

If you are concerned that your child has autism spectrum disorder and developmental screening confirms the risk, ask your family doctor or pediatrician to refer you immediately to an autism specialist or team of specialists for a comprehensive evaluation. Since the diagnosis of autism spectrum disorder is complicated, it is essential that you meet with experts who have training and experience in this highly specialized area.

The team of specialists involved in diagnosing your child may include:
1. Child psychologists
2. Child psychiatrists
3. Speech pathologists
4. Developmental pediatricians
5. Pediatric neurologists
6. Audiologists
7. Physical therapists
8. Special education teachers

Diagnosing Autism Spectrum Disorder is not a brief process. There is no single medical test that can diagnose it definitively; instead, in order to accurately pinpoint your child’s problem, multiple evaluations and tests may be necessary.

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Getting evaluated for Autism Spectrum Disorder

**Parent interview** - In the first phase of the diagnostic evaluation, you will give your doctor background information about your child’s medical, developmental, and behavioral history. If you have been keeping a journal or taking notes on anything that’s concerned you, share that information. The doctor will also want to know about your family’s medical and mental health history.
Medical exam – The medical evaluation includes a general physical, a neurological exam, lab tests, and genetic testing. Your child will undergo this full screening to determine the cause of their developmental problems and to identify any co-existing conditions.

Hearing test – Since hearing problems can result in social and language delays, they need to be excluded before an Autism Spectrum Disorder can be diagnosed. Your child will undergo a formal audiological assessment where they are tested for any hearing impairments, as well as any other hearing issues or sound sensitivities that sometimes co-occur with autism.

Observation – Developmental specialists will observe your child in a variety of settings to look for unusual behavior associated with the Autism Spectrum Disorder. They may watch your child playing or interacting with other people.

Lead screening – Because lead poisoning can cause autistic-like symptoms, the National Center for Environmental Health recommends that all children with developmental delays be screened for lead poisoning.

Other testing

Depending on your child’s symptoms and their severity, the diagnostic assessment may also include speech, intelligence, social, sensory processing, and motor skills testing. These tests can be helpful not only in diagnosing autism, but also for determining what type of treatment your child needs.

[Read: Autism Treatments, Therapies, and Interventions]

Speech and language evaluation – A speech pathologist will evaluate your child’s speech and communication abilities for signs of autism, as well as looking for any indicators of specific language impairments or disorders.

Cognitive testing – Your child may be given a standardized intelligence test or an informal cognitive assessment.

Adaptive functioning assessment – Your child may be evaluated for their ability to function, problem-solve, and adapt in real-life situations. This may include testing social, nonverbal, and verbal skills, as well as the ability to perform daily tasks such as dressing and feeding themselves.
**Sensory-motor evaluation** – Since sensory integration dysfunction often co-occurs with autism, and can even be confused with it, a physical therapist or occupational therapist may assess your child’s fine motor, gross motor, and sensory processing skills.

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Get more help

*The Autism Revolution* – Whole body strategies for making Life all it can be (Harvard Health Books)

*Autism Spectrum Disorders* – What should you know? (Centers for Disease Control and Prevention)

*Autism Navigator* – Guide to symptoms, causes, diagnosis, and treatment. (Center for Parent Information and Resources)

*Screening and Diagnosis* – A guide to the evaluation used to diagnosis autism spectrum disorder. (Centers for Disease Control and Prevention)

*Asperger’s Syndrome* – Diagnosis, educational issues, and what the disorder looks like in adults. (Autism Society of America)

*Pervasive Developmental Disorders Information Page* – Jumping off point to resources on Pervasive Developmental Disorder. (NINDS)

**Hotlines and support**

**In the U.S.**: Call the *Autism Society* National Helpline at 1-800-328-8476.

**UK**: Call the *Child Autism UK helpline* at 01344 882248 or find help and support at The
National Autistic Society.

**Australia:** Call the Early Intervention helpdesk in Perth at 1800 778 581 or [Get support for your child](#) from NDIS.

**Canada:** Call the [Autism Canada](#) Family Support Representative at 1-800-983-1795.

**New Zealand:** Find helplines and support in your area at [Autism New Zealand](#).