WHAT IS NEURODIVERSITY?



noun noun: neurodiversity; noun: neurodiversity

1. the range of differences in individual brain function and behavioral traits, regarded as part of normal variation in the human population.

Definition from Oxford Languages**



MORE INFO:

bridgeportct.gov/socialservices

WHAT DOES BEING NEURODIVERT MEAN?



"Neurodivergent is a nonmedical term that describes people whose brains develop or work differently for some reason."

"This means the person has different strengths and struggles from people whose brains develop or work more typically."

"While some people who are neurodivergent have medical conditions, it also happens to people where a medical condition or diagnosis hasn't been identified."

MORE INFO:

<u>Cleveland Clinic</u>

Seeing the world

differently

bridgeportct.gov/socialservices

THE MAKE-UP OF NEURO-DIVERSITY



What conditions counts as being neurodivergent?

DYSCASLCULIA

DYSPRAXIA/

DYSLEXIA

NEURO-DIVERSITY

AUSTISM SPECTRUM DISORDER (ASD)

TOURETTE'S SYNDROME

ATTENTION-DEFICIT HYPERACTIVE DISORDER (ADHD)

CREATED BY MARY COLLEY

FULL DEFINITIONS
ON ADHD AWARE
UK

MORE INFO:

<u>bridgeportct.gov/socialservices</u>

<u>ADHD Aware UK</u>

THE MAKE-UP OF NEURO-DIVERSITY



Who counts as being neurodivergent?

- ~8% of people in the UK are thought to have ADHD.
- ~10% of people in the UK are thought to have dyslexia.
- ~8% of people in the UK are thought to have dyspraxia.
- ~6% of people in the UK are thought to have dyscalculia.
- ~1% of people in the UK are thought to have an autistic spectrum condition.
- ~1% of people in the UK are thought to have Tourette's syndrome.

CREATED BY MARY COLLEY

FULL DEFINITIONS
ON ADHD AWARE
UK

MORE INFO:

<u>bridgeportct.gov/socialservices</u>

ADHD Aware UK

NEURODIVERGENT OVERLAP STATS



- Approximately 1 in 2 people with ADHD have dyslexia
- Approximately 1 in 2 people with ADHD have dyspraxia
- 9 in 10 people with Tourette's have ADHD
- 2 in 3 people with ADHD have autistic spectrum traits
- People with ADHD are 8-fold more likely to meet the full criteria for an autistic spectrum diagnosis

LEARN MORE BELOW



bridgeportct.gov/
socialservices

<u>CDC -</u> <u>Autism</u> <u>(ASD)</u> ADHD Aware. org.UK

Autism Speaks Statistics

My Disability Jobs

RATE OF NEURODIVERGENCE IN THE WORKPLACE



Worldwide prevalence:

"15% to 20% of the population is considered to be neurodiverse."

Employment:

'Neurodiverse people are more likely to be unemployed than people with any other disability. Unemployment for neurodivergent adults runs at least as high as 30-40% which is three times the rate for people with disability, and eight times the rate for people without disabilities."

MORE INFO:

<u>bridgeportct.gov/</u> <u>socialservices</u> Higher Educational Journal

Forbes Human Resources My Disability Jobs

EMPLOYMENT AND NEURODIVERSITY



"In the United States, it is estimated that 85% of people on the autism spectrum are unemployed, compared to 4.2% of the overall population."

 "Disabled working people were significantly less likely to be employed as managers, directors, or senior officials, or to be employed in professional occupations (27.2% compared to 34.5% for non-disabled people.)"

MORE INFO:

bridgeportct.gov/
socialservices

Autistica.org.
UK

INCLUDING NEURODIVERGENT WORKERS



- <u>Finding Neurodivergent Workers</u>: A variety of organizations, agencies and programs are available to help employers source and hire neurodivergent workers.
- Job Descriptions and Interviewing: Inclusive job descriptions and interview processes can help attract skilled candidates, including neurodivergent workers.
- <u>Evaluation</u>: Neurodivergent employees, just like all employees, want to build skills and advance in their careers.
- Workspace, Work Schedules and Other
 Accommodations: A supportive work environment can be helpful for all employees, including neurodivergent workers.

MORE INFO:

<u>bridgeportct.gov/</u> <u>socialservices</u> <u>askearn.org/neurodiveristy in</u>
<u>the workplace</u>

HOW TO SEEK WORK ACCOMMODATIONS FOR DISABILITY



Keep it simple

"You can tell your employer that you need an adjustment or change because of a medical condition. You may use plain English. You do not have to mention the ADA or use the phrase "reasonable accommodation."

It can be as easy as saying to your employer, "I need to talk to you about the difficulty I have when trying to get to work on time due to the medication I take."

MORE INFO:

<u>bridgeportct.gov</u> /socialservices

<u>Choose Work.ssa.gov/</u> <u>Social Security Administration</u>

OTHER RESOURCES ON **JOB ACCOMODATIONS**



- Job Accommodation Network
 - Employees' Practical Guide to Negotiating and Requesting Reasonable Accommodations Under the **Americans with Disabilities Act**
 - Employers' Practical Guide to Negotiating and Requesting Reasonable Accommodations Under the **Americans with Disabilities Act**
 - Accommodation Ideas Based on Disability Type
 - JAN's Searchable Online Accommodation Resource
- What are Reasonable Accommodations?
- Technology and Job Accommodations Bring Many Jobs **Within Reach**
- Computer/Electronic Accommodations Program (Federal)

HOW TO SEEK SCHOOL ACCOMMODATIONS FOR DISABILITY



LEARN MORE DETAILS HERE

- 1. Connect with Disability Services.
- 2. Initiate Request for Accommodations.
- 3. Identify Your Disability(ies).
- 4. Provide Documentation of Disability.
- 5. Identify Possible Accommodations You Need.
- 6. Notify Your Course Instructor of Your Approved Accommodation.
- 7. Advocating for Your Approved Accommodation.
- 8. Advocate for Your Wants or Needs within This Process.

CREATED BY Dr. Lauren Lestremau Allen

MORE INFO:

<u>bridgeportct.gov/socialservices</u>

Research Autism.org



BLOG / BIPOC

BIPOC Mental Health: Barriers and Ways to Support





Clinically reviewed by

Andrea Holman, PhD

Program Manager, Workforce Transformation

By The Lyra Team

30 OF JUNE 2023 - 9 MIN READ

READ MORE ABOUT THE BARRIERS OF BIPOC MENTAL HEALTH:

- 1. LACK OF INSURANCE
- 2. PROXIMITY TO CARE
- 3.STIGMA
- 4. CULTURAL MISTRUST

SOURCE: LYRAHEALTH.COM

MORE INFO:

bridgeportct.gov/socialservices



NEURODIVERGENT POPULATION & LGBTQIA2SP+ OVERLAP



"A recent Cambridge University study found autistic people might be three times more likely to identify as trans, while another study found neurodivergent individuals were 8 times as likely to be asexual." (1).

A 2018 study found that almost 70% of people with autism identify as "non-heterosexual" (2).

Another study found that "people who do not identify with the sex they were assigned at birth are 3 to 6 times more likely to be autistic than cisgender people" (3)

LEARN MORE IN THE SOURCES BELOW



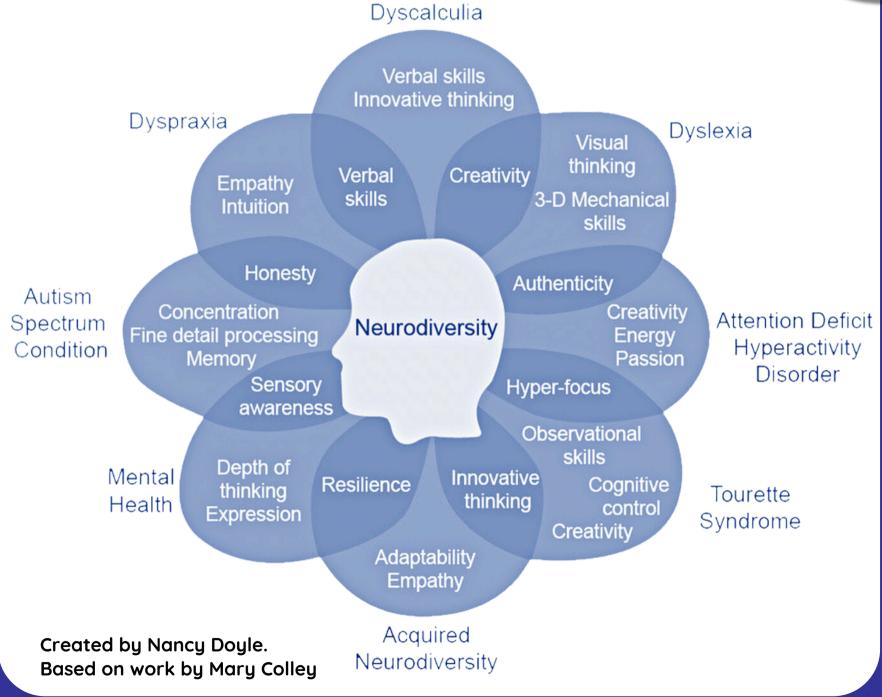
MORE INFO:

bridgeportct.gov/socialservices

The Brain Charity LGBTQ & Neurodivergent

OVERLAPPING SKILLS + STRENGTHS





MORE INFO:

bridgeportct.gov/socialservices

John Hopkins Hospital

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)



"ADHD is one of the most common neurodevelopmental disorders of childhood. It is usually first diagnosed in childhood and often lasts into adulthood."

SIGNS AND SYPMOTMS

A child with ADHD might:

- daydream a lot
- forget or lose things a lot
- squirm or fidget
- talk too much
- make careless mistakes or take unnecessary risks
- have a hard time resisting temptation
- have trouble taking turns
- have difficulty getting along with others





LEARN MORE
ABOUT SIGNS &
SYMPTOMS

MORE INFO: Farone., et al (2021).

<u>bridgeportct.gov/socialservices</u>

CDC.gov What is ADHD?

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)



THREE PRESENTATIONS OF ADHD:

Predominately Inattentive Presentation:

"It is hard for the individual to organize or finish a task, to pay attention to details, or to follow instructions or conversations. The person is easily distracted or forgets details of daily routines."



Predominately Hyperactive Presentation: "The person fidgets and talks a lot. It is hard to sit still for long (e.g., for a meal or while doing homework)."

Combined Presentation:

Symptoms of the above two types are equally present in the person.

LEARN MORE
ABOUT SIGNS &
SYMPTOMS

MORE INFO:

<u>Farone.</u>, et al (2021).

bridgeportct.gov/socialservices

CDC.gov What is ADHD?

CAUSES OF ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)



"The cause(s) and risk factors for ADHD are unknown, but current research shows that genetics plays an important role. Recent studies link genetic factors with ADHD.1 In addition to genetics, scientists are studying other possible causes and risk factors including:

- Brain injury
- Exposure to environmental risks (e.g., lead) during pregnancy or at a young age
- Alcohol and tobacco use during pregnancy
- Premature delivery
- Low birth weight

Research does not support the popularly held views that ADHD is caused by eating too much sugar, watching too much television, parenting, or social and environmental factors such as poverty or family chaos. Of course, many things, including these, might make symptoms worse, especially in certain people. But the evidence is not strong enough to conclude that they are the main causes of ADHD."

LEARN MORE
ABOUT SIGNS &
SYMPTOMS



MORE INFO:

<u>1.</u>

ADULTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

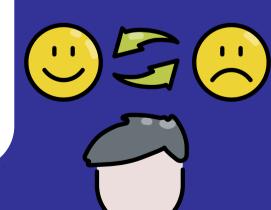


"Approximately 10 million adults have attentiondeficit/hyperactivity disorder (ADHD)."

"In early adulthood, ADHD may be associated with depression, mood or conduct disorders and substance abuse. Adults with ADHD often cope with difficulties at work and in their personal and family lives related to ADHD symptoms."

"Many have inconsistent performance at work or in their careers; have difficulties with day-to-day responsibilities; experience relationship problems; and may have chronic feelings of frustration, guilt or blame."

LEARN MORE ABOUT ADHD CHALLENGES



MORE INFO:

<u>bridgeportct.gov/socialservices</u> CHADD Adults with ADHD

HOW DO I KNOW IF I NEED AN EVALUATION FOR ADHD?



- Inconsistent performance in jobs or careers;
 losing or quitting jobs frequently
- History of academic and/or career underachievement
- Poor ability to manage day-to-day responsibilities, such as completing household chores, maintenance tasks, paying bills or organizing things
- Relationship problems due to not completing tasks
- Forgetting important things or getting upset easily over minor things
- Chronic stress and worry due to failure to accomplish goals and meet responsibilities
- Chronic and intense feelings of frustration, guilt or blame

LEARN MORE
ABOUT ADHD
CHALLENGES

CHADD Diagnosis of Adults with ADHD

MORE INFO:

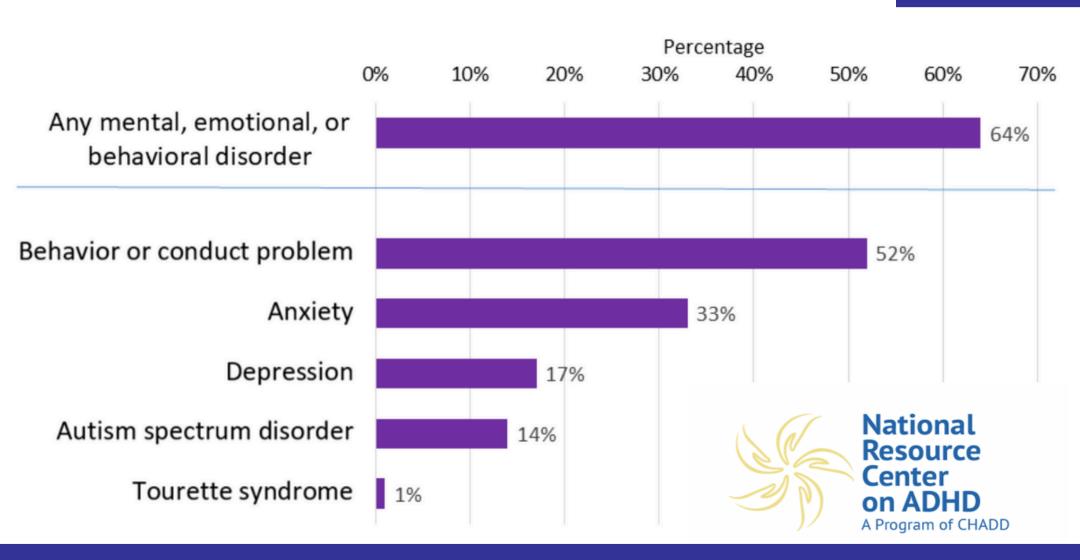
bridgeportct.gov/socialservices

CHADD Adults with ADHD

OVERLAPPING CO-OCCURING DISORDERS AND ADHD



"According to a national 2016 parent survey (3), 6 in 10 children with ADHD had at least one other mental, emotional, or behavioral disorder:"



AUTISM SPECTRUM DISORDER (ASD)



"Autism spectrum disorder (ASD) is a developmental disability caused by differences in the brain. Some people with ASD have a known difference, such as a genetic condition. Other causes are not yet known."

"People with ASD may behave, communicate, interact, and learn in ways that are different from most other people. There is often nothing about how they look that sets them apart from other people. The abilities of people with ASD can vary significantly."

"For example, some people with ASD may have advanced conversation skills whereas others may be nonverbal. Some people with ASD need a lot of help in their daily lives; others can work and live with little to no support."



SIGNS/SYMPTOMS OF AUTISM SPECTRUM DISORDER (ASD)



Social
Communication and
Interaction Skills

- Avoids or does not keep eye contact
- Does not respond to name by 9 months of age
- Does not show facial expressions like happy, sad, angry, and surprised by 9 months of age

Restricted or Repetitive Behavioral or interests

- Gets upset by minor changes
- Has obsessive interests
- Must follow certain routines
- Flaps hands, rocks body, or spins self in circles
- Has unusual reactions to the way things sound, smell, taste, look, or feel

Other Characteristics

 Delayed language skills, Delayed movement skills, Delayed cognitive or learning skills SEE FULL SET OF SYMPTOMS

MORE INFO:

SIGNS OF AUTISM IN ADULTS



Common signs of autism in adults include:

- finding it hard to understand what others are thinking or feeling
- getting very anxious about social situations
- finding it hard to make friends or preferring to be on your own
- seeming blunt, rude or not interested in others without meaning to
- finding it hard to say how you feel
- taking things very literally for example, you may not understand sarcasm or phrases like "break a leg"
- having the same routine every day and getting very anxious if it changes

SEE FULL SET OF SYMPTOMS



bridgeportct.gov/socialservices

NHS | Signs of Autism in Adults

SIGNS OF AUTISM IN ADULT WOMEN VS MEN (NHS)



Autism can sometimes be different in women and men.

Autistic women may:

- have learned to hide signs of autism to 'fit in' by copying people who don't have autism
- be quieter and hide their feelings
- appear to cope better with social situations
- show fewer signs of repetitive behaviours

This means it can be harder to tell you're autistic if you're a woman.

The National Autistic Society have more information about autistic women and girls

SEE FULL SET OF SYMPTOMS

MORE INFO:

bridgeportct.gov/socialservices



OVERLAPPING CO-OCCURING DISORDERS AND AUTISM

"According to a study published by the Journal of Developmental and Physical Disabilities, anxiety is present in the majority of autistic children ages 1-17 and depression is present in about 50% of these children, which is also much higher than the neurotypical population (Mayes, 2011)."

"On top of the higher prevalence of mental health in the autistic population, "co-occurring mental health conditions are [also] more prevalent in the autism population than in the general population" (Lai, 2019)."





ANXIETY

MORE INFO:

bridgeportct.gov/s ocialservices <u>The Lancet/Journals</u>

<u>Springer Link/</u>
<u>Articles</u>

Huskies for Neurodiversity

WHAT CAN AUTISM LOOK LIKE?



Proprioception

Sensing Body Position, Dancing, Walking on Tiptoes, Spinning Dyspraxia

Interoception

Internal Sense, Hunger, Thirst, Feeling Full, Going to the Bathroom Awareness of Emotions

Exteroception

Sensing the Outside World Hypersensitive or Hyposensitive

Stims

Energy Regulation, Repetitive Movements Sensory Seeking

Emotional Intensity

Meltdowns, Shutdowns, Overload, Situational Mutism, Hyporeactivity

Communication Differences

Echolalia, Palilalia, Echopraxia, Scripting, Eye Contact, Body Language Tangential Conversation Infodumps

SPINs

SPecial INterests, Intense Research, Information Hunger Collections

Executive Rejecti

Hyperfocus, Demand Avoidance Hygiene, Process Complexity Autistic Inertia, Difficulty Changing Tasks

Functioning

Relationship Differences

Rejection Sensitivity, Masking, Bonding through Special Interests

MORE INFO:

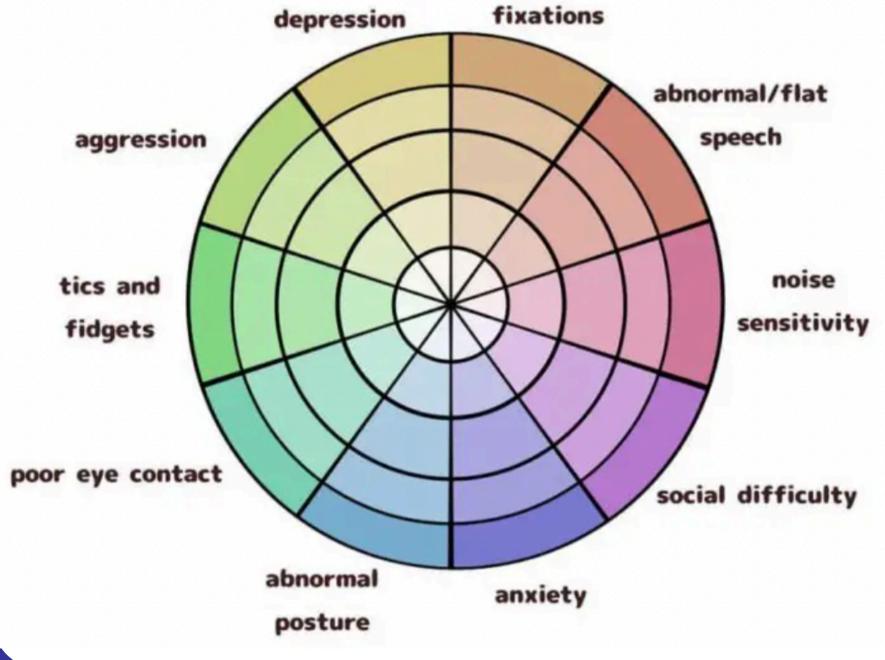
bridgeportct.gov/socialservices

Good Autism School
Autism Wheel

WHAT CAN AUTISM LOOK LIKE?







MORE INFO:

bridgeportct.gov/socialservices

Good Autism School Autism Wheel

AUTSTIC ACCOMODATIONS

"When we process information from our surroundings via our senses, we call this sensory processing. Research suggests that roughly 90% of autistic people have atypical sensory processing – usually either hyper-reactivity or hyporeactivity to sensory experiences."



Hyper-reactive:

Having or showing abnormally high sensitivity to stimuli.

Hypo-reactive:

Having or showing abnormally low sensitivity to stimuli.

MORE INFO:

bridgeportct.gov/socialservices

Psych Central Accommodations for Autism

AUTSTIC ACCOMODATIONS



Know your rights

Federal law requires all schools to provide accommodations for students with autism and other disabilities through a 504 plan or an IEP, if the disability is causing educational impairments.

If you're a parent of an autistic student, your child is eligible for accommodations through a <u>504 plan</u> or <u>Individualized Education Program (IEP)</u>:

- 504 plan: A 504 plan allows accommodations for students with disabilities and protects individuals from discrimination in schools that receive federal financial assistance.
- **IEP:** An IEP is an individualized plan for students with disabilities that provides accommodations, modifications, assistance, and other educational support.

If your child is denied an IEP or 504 plan consider seeking an educational advocate for assistance, most states provide these free of charge.

MORE INFO:

<u>bridgeportct.gov/socialservices</u>

<u>Psych Central</u> <u>Accommodations for Autism</u>

AUTSTIC SENSORY ACCOMODATIONS





Noise Cancelling Headphones

Glasses for light sensitivities





Speech-to-Text/
Assistive Technology





Stim/Fidget
Toys

MORE INFO:

bridgeportct.gov/socialservices

Atandme Assistive tech.

<u>Cross River Therapy</u>

15 types of accomodations

<u>Psych Central</u>
<u>Accommodations for Autism</u>

WHAT IS STIMMING?

"If you're wondering if your loved one or child is stimming, <u>pay attention to their behavior</u>. Stimming suggests repetitive behavior that goes beyond what is considered culturally or socially acceptable."

Examples of Stimming:

- Finger-flicking
- Rocking back and forth
- Pacing back and forth
- Leg bouncing
- Repeating words or phrases (echolalia)
- Humming
- Hard blinking

- Opening and closing doors
- Flicking switches
- Finger-snapping
- Spinning or tapping objects
- Covering and uncovering the ears





bridgeportct.gov/socialservices



REASONS FOR STIMMING?



- Block out excessive sensory input when someone is hypersensitive.
- Provide necessary stimulation to someone who is hyposensitive.
- Help manage emotions (positive and negative) that may feel too "big" for an autistic person to handle.
- Help distract from physical discomfort and pain. 3

MORE INFO:

bridgeportct.gov/socialservices

<u>Psych Central</u> <u>Accommodations for Autism</u>





Why Is Neurodivergent Stimming Different?

People who are not autistic (<u>neurotypical</u>) usually stop stimming when they get a strange look from someone or otherwise recognize that their behavior is drawing attention. Autistic people perceive social cues and body language of people around them differently. Since they may not "pick up on" others' reactions to what they are doing, they may stim in situations where it's considered socially inappropriate. [1]



IS STIMMING HARMFUL?

"Many autistic people stim when they're excited and happy, not just to defuse feelings of being overstimulated or distressed". 2

"While most stims aren't harmful, some behaviors can be."

"Stims that may need to be managed to prevent physical harm include:" 5

- Excessive self-rubbing or self-scratching
- Excessive nail-biting
- Head-banging
- Hand-biting
- Ear-clapping
- Slapping or hitting oneself

verywell health

MORE INFO:

<u>bridgeportct.gov/socialservices</u>

<u>Psych Central</u> <u>Accommodations for Autism</u>

<u>2.</u> <u>5.</u>

verywell health



ADHD AND STIMMING

"Some of the reasons why autistic people stim are shared by people with attention deficit disorder (ADHD) who stim." 6

"A person with ADHD who is "fidgety" is often trying to self-regulate their need for stimulation in a situation where they are not feeling stimulated enough."

"There are also some differences: For example, an autistic student may stim in class because the light and sound in the room are overwhelming, while a student with ADHD may find that stimming helps them focus. For other people with ADHD, stimming simply becomes a habit."

Why People With ADHD Stim

verywell health





DYSLEXIA

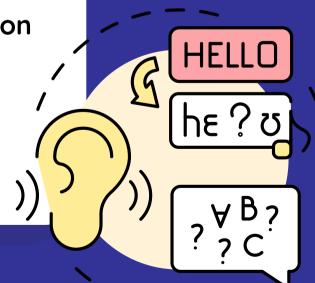
Dyslexia is a learning disability in reading. People with dyslexia have trouble reading at a good pace and without mistakes. They may also have a hard time with reading comprehension, spelling, and writing. But these challenges aren't a problem with intelligence.

People sometimes believe dyslexia is a <u>problem with vision</u>. They think of it as <u>reversing letters or writing backwards</u>. But dyslexia is an issue with language.

Dyslexia can create difficulty with other skills, too.

These include:

- Reading comprehension
- Spelling
- Writing
- Math





Understood®

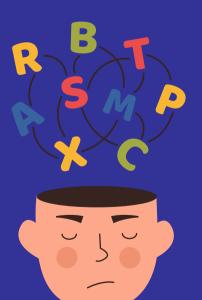
SYMPTOMS OF DYSLEXIA

"Dyslexia impacts people in different ways. So, symptoms might not look the same from one person to another."

"A key sign of dyslexia is trouble decoding words. This is the ability to match letters to sounds. Kids can also struggle with a more basic skill called phonemic awareness. This is the ability to recognize the sounds in words. Trouble with phonemic awareness can show up as early as preschool."

dyslexia noun, psycho difficulty in reading dyslexic adj, noun









CHALLENGES WITH DYSLEXIA IN PRE-K, KIDS, VS TEENS



Young Children (up to the pre-K and kindergarten)

 counting upward, recognizing numbers and math symbols, etc.

School-age children (primary/grade/elementary school)

• counting on fingers with small numbers (especially at an age that seems unnecessary).

Teenagers (secondary school- or highschool-aged adults)

• breaking down problems into multiple steps to solve them.

SEE FULL SET OF SYMPTOMS

EMOTIONAL SYMPTOMS OF DYSLEXIA



"Dyslexia doesn't just affect learning. It can also impact <u>everyday skills and activities</u>. These include social interaction, memory, and dealing with stress."

Dive deeper

- Learn more about <u>signs of dyslexia in kids</u> <u>at different ages</u>.
- For families: Hear an expert explain how to choose books for kids who struggle with reading.
- For educators: Learn about <u>structured</u>
 <u>literacy</u> and get <u>strategies for teaching</u>
 <u>reading</u>.







EMOTIONAL SYMPTOMS OF DYSLEXIA



"In addition to symptoms that directly relate to someone's ability to do math, people with dyscalculia may show emotional symptoms when faced with situations where math is necessary. Those emotional symptoms often include":

- Anxiety (including test anxiety) or even panic.
- Agitation, anger or aggression (such as temper tantrums in younger children).
- Fear (including a fear or even phobia of going to school).
- Physical symptoms of any of the above (<u>nausea and vomiting</u>, <u>sweating</u>, <u>stomachache</u>, etc.)



POSSIBLE CAUSES OF DYSLEXIA

"Researchers haven't yet pinpointed exactly what causes dyslexia. But they do know that genes and brain differences play a role. Here are some of the possible causes of dyslexia: Genes and heredity:

Dyslexia often runs in families. About 40 percent of siblings of people with dyslexia also struggle with reading.

As many as 49 percent of parents of kids with dyslexia have it, too. Scientists have also found genes linked to problems with reading and processing language."











DYSCALCULIA



"Dyscalculia is a learning disorder that affects a person's ability to do math. Much like dyslexia disrupts areas of the brain related to reading, dyscalculia affects brain areas that handle mathand number-related skills and understanding."

"Symptoms of this condition usually appear in childhood, but adults may have dyscalculia without knowing it."

"Dyscalculia is uncommon but widespread. Experts estimate it affects between 3% and 7% of people worldwide."

HOW DYSCALCULIA **AFFECT MY BRAIN?**



Solving a math problem like "2+2=?" might seem simple, but it takes several different skills — and the areas of the brain that manage them — working together to do it. Some of those include:

- Visual Processing
- Short-term Memory
- Language
- Long-term Memory
- Understanding of Quantities and Amounts
- Calculation

SEE FULL SET OF SYMPTOMS

DYSCALCULIA VS **DYSLEXIA**

Dyslexia and dyscalculia are both learning disorders, but they have key differences. In the most general terms, these two break down as follows:

- Dyscalculia: This learning disorder affects a person's ability to do math.
- Dyslexia: This learning disorder affects a person's ability to read.

While they're different, the two conditions fall under the same diagnosis, "Specific learning disorder," in the American Psychiatric Association's **Diagnostic and Statistical Manual of Mental** <u>Disorders, Fifth Edition (DSM-5).</u> It's also possible for people to have both dyscalculia and dyslexia.



TOURETTE'S **SYNDROME**



Tourette syndrome (TS) is a neurological disorder that affects the brain and nerves.

"TS causes a person to make sudden movements or sounds called "tics." Tics are involuntary, so you can't control or prevent them. Motor tics involve body movements, like shoulder shrugging. Vocal tics involve the voice, like throat clearing. Motor tics tend to develop before vocal tics."

"Tourette syndrome, or Tourette's, usually develops in early childhood. It often improves as you become an adult. TS is the most severe type of tic disorder."

"About one in 100 children have some form of tic disorder."

"Tourette syndrome is less common affecting about one out of 160 children."

TOURETTE'S SYNDROME SYMPTOMS





"Tics are the main symptom of Tourette's. They usually start between ages five and seven, peaking around age 12."

Tics are complex or simple:

- Complex tics involve many movements and muscle groups. Jumping is a complex motor tic. Repeating certain words or phrases is a complex vocal tic.
- Simple tics are quick, repeated movements that only involve a few muscle groups. Shoulder shrugging is a simple motor tic. Sniffing is a simple vocal tic.

TOURETTE'S SYNDROME SYMPTOMS

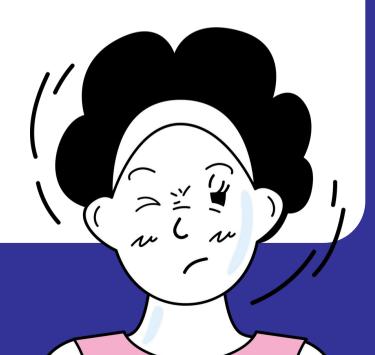


Motor Tics

- Arm Jerking
- Bending at the waist
- Eye Blinking
- Head Jerking or **Twisting**
- Hopping
- Jaw Movements
- Twisted or Distorted **Facial Expressions**

Vocal Tics

- Barking
- Grunting
- Shouting
- Sniffing
- Throat Clearing



ARE TICS EVER HARMFUL?



"Some tics are harmful, such as motor tics that cause someone to hit themselves in the face. A vocal tic called coprolalia leads to swearing or inappropriate language."

"This type of tic can make someone seem purposefully disruptive or offensive, even though it's an uncontrollable impulse. Children with coprolalia might receive unwarranted punishment at school or at home."

"Mild tics that don't affect everyday activities might not need treatment. However, severe tics can make it hard to function at work, school or in social situations. Some tics even lead to self-injury. In these cases,

medication or

behavioral

help."

therapy may

TICS AND OTHER OCCURRING CONDITIONS



Most people with Tourette's have other health conditions. These are usually mental or behavioral health disorders, including:

- Anxiety disorders.
- Attention deficit hyperactivity disorder (ADHD).
- Autism spectrum disorder (ASD).
- **Depression**.
- Learning disabilities.
- Obsessive-compulsive disorder (OCD).
- Oppositional defiant disorder (ODD).



WHAT IS CHILDHOOD APRAXIA OF SPEECH (CAS)?



"Childhood apraxia of speech (CAS) is a motor speech neurological (brain) condition that affects some young children as they learn to speak."

"Children with CAS know what they want to say, but are unable to form the words."

"Childhood apraxia of speech is a rare condition that affects an estimated 1-2 out of every 1,000 children in the U.S."

CAUSES OF CHILDHOOD APRAXIA OF SPEECH (CAS)?



"Childhood apraxia of speech occurs because of difficulty programming the movements needed for articulation (speech) to occur. The exact cause is unknown."

"There is also evidence that genetic conditions can lead to a CAS diagnosis. Studies show that a mutation of the FOXP2 gene leads to a severe form of CAS, along with other neurodevelopmental conditions like <u>autism</u>, <u>attention-deficit/hyperactivity disorder</u> and <u>epilepsy</u>. Research is ongoing to pinpoint the direct cause of CAS."

"Weakness or paralysis of the muscles involved in speech, including those of the lips, jaw and tongue, are not a cause of CAS."

SYMPTOMS OF CHILDHOOD APRAXIA OF SPEECH (CAS)?



Before 3 years of age

- Not make babbling or cooing sounds.
- Use only a few different sounds.
- Have trouble putting sounds together.
- Take long pauses between sounds.
- Say words differently each time.
- etc.

After 3 years of age

- Have difficulty saying longer words clearly.
- Have trouble imitating what other people say.
- Be hard to understand, especially for people who don't know the child.
- Have a flat or choppy speech pattern.

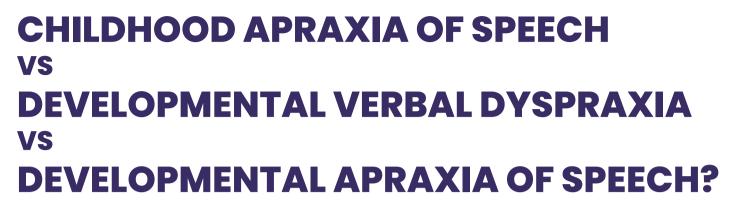
SEE FULL SET OF SYMPTOMS

WHAT DOES CHILDHOOD **APRAXIA OF SPEECH AFFECT?**



Children may be more likely to have this condition if:

- A child's language skills are stronger than their expressive communication and speech skills or if a child has limited to no speech.
- A child has difficulties chewing foods, using a straw or drinking from a cup and processing what they feel in their mouth.
- A child has difficulties with the development of reading, writing and spelling when they are school-aged.
- A child has trouble with fine motor skills. For example, the child may have difficulty drawing or picking up small things.





"Childhood apraxia of speech, developmental verbal dyspraxia and developmental apraxia of speech refer to the same condition."

"Apraxia means that you completely lose the ability to do something. Dyspraxia means that you partially lose the ability to do something with accuracy. The difference between the two terms is severity, with apraxia being the most severe."

"You will see all three terms interchangeably used by different healthcare providers."

NEURODIVERGENT RESOURCES IN BRIDGEPORT



Bureau of Rehabilitation Services of CT

1057 Broad Street

Bridgeport, CT 06604

Phone: 203-683-0500



MORE INFO:

<u>bridgeportct.gov/socialservices</u> <u>ADHD Aware UK</u>





- **Greater Bridgeport Community** Mental Health Center [GBCMHC]
- **Southwest Community Health**
- **Optimus Healthcare Behavioral Health**
- <u>Liberation Program</u>



MORE INFO:

<u>bridgeportct.gov/socialservices</u> <u>ADHD Aware UK</u>