



# ADD and ADHD: Differences, Diagnosis & Treatments

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- ❖ Symptoms
- ❖ ADD vs. ADHD
- ❖ Diagnosis
- ❖ Treatment



ADD is a term that is sometimes used for one of the presentations of attention-deficit/hyperactivity disorder (ADHD). ADHD is a neurological disorder that causes a range of behaviour problems such as difficulties with attending to instruction, focusing on schoolwork, keeping up with assignments, following instructions, completing tasks, and social interaction.

In the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), this condition is officially known as "attentional deficit/hyperactivity disorder, predominantly inattentive presentation."

While the term ADD is technically outdated, it is still sometimes used colloquially to refer to someone who has difficulty staying focused but does not experience symptoms of hyperactivity.

# Symptoms of ADD (Inattentive Type ADHD)

- ❖ People with the inattentive type of ADHD struggle to pay attention or stay focused for long periods of time. Some of the symptoms of this type of ADHD include:
  - ❖ Being easily distracted
  - ❖ Difficulty following directions
  - ❖ Difficulty staying on task
  - ❖ Forgetfulness
  - ❖ Losing personal items such as keys or books
  - ❖ Not paying attention to details
  - ❖ Problems staying organized
  - ❖ Short attention span

- Children with ADHD without the hyperactivity component may appear to be bored or disinterested in classroom activities. They may be prone to daydreaming or forgetfulness, work at a slow pace, and turn in incomplete work.
- Their assignments may look disorganized as well as their desks and locker spaces. They may lose materials at school and at home or misplace schoolwork and fail to turn in assignments. This can frustrate teachers and parents and result in the child earning poor marks in class.
- Behaviour intervention may counter the child's forgetfulness.

# ADD vs. ADHD: What's the Difference?

While many people continue to use the terms ADD and ADHD interchangeably, it is important to recognize that they are not the same. Here are some key points to be aware of:

- ❖ ADD is an older term for what is now known as the inattentive type of ADHD.
- ❖ The term ADHD has been used to describe both inattentive and hyperactive types since the mid-1990s.
- ❖ However, some people continue to use the term ADD as a way to indicate that the condition does not include hyperactivity as a symptom.
- ❖ The DSM-5 currently recognizes three subtypes of ADHD: inattentive type, hyperactive/impulsive type, and combined type.

□ Inattentive type ADHD does not manifest itself in the same way that predominantly hyperactive-impulsive type or combined type do.

- Children with these presentations have different symptoms.
- Children with the other two presentations of ADHD, for example, tend to act out or exhibit behaviour problems in class.
- Children with inattentive type ADHD are generally not disruptive in school.
- They may even sit in class quietly, but that doesn't mean their disorder isn't a problem and that they're not struggling to focus.
- In addition, not all children with inattentive type ADHD are alike.

# Diagnosis

- If you suspect your child has ADHD, talk to your child's school counsellor, teacher, or physician about appropriate treatment. If you have any concerns, begin these discussions today. Earlier intervention can ensure that your child experiences fewer disruptions as a result of their condition.
- Your paediatrician may recommend seeing a child psychologist who can do formal testing to see if your child fits the criteria for ADHD and where they happen to be on the spectrum. Not only can this testing help differentiate ADHD from other issues that may be causing difficulty with schoolwork, but it can be used to follow a child's response to interventions over time.
- Depending on your child's symptoms, they may be diagnosed with inattentive type ADHD, impulsive/hyperactive type ADHD, or combined type ADHD.

# Treatment

- There is no cure for ADHD, but treatment can help children manage their symptoms and improve daily functioning. Treatment for ADHD often involves medications, behavioural interventions, or a combination of the two. The type of treatment chosen depends on the child's symptoms and needs.

## □ Medications

- ADHD may be treated with stimulant medications or non-stimulant medications. These medications can help students with inattentive type ADHD stay on task and focused.
- Stimulant medications include Ritalin (methylphenidate) and Adderall (amphetamine). Non-stimulant medications can be helpful for those who experience unwanted side effects from stimulants and include Strattera (atomoxetine) and Intuniv (guanfacine).

## □ Behaviour Management

- Whether or not parents choose medication as a treatment option, most physicians and child psychologists suggest that a behaviour intervention plan should be developed to help teach kids adaptive behaviour skills and reduce off-task and inattentive behaviours. Behavioural interventions may include behaviour modification, parent training, social skills training, and school interventions.
- There may be an advantage of behaviour intervention plans in the long term, as these adaptations may result in lasting improvements in concentration skills that medication cannot provide.

# Sources

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# Facts about Down Syndrome

- What is Down Syndrome?
- Down syndrome is a condition in which a person has an extra chromosome.
- Chromosomes are small “packages” of genes in the body. They determine how a baby’s body forms and functions as it grows during pregnancy and after birth.
- Typically, a baby is born with 46 chromosomes. Babies with Down syndrome have an extra copy of one of these chromosomes, chromosome 21. A medical term for having an extra copy of a chromosome is ‘trisomy.’ Down syndrome is also referred to as Trisomy 21. This extra copy changes how the baby’s body and brain develop, which can cause both mental and physical challenges for the baby.

- Even though people with Down syndrome might act and look similar, each person has different abilities.
- People with Down syndrome usually have an IQ (a measure of intelligence) in the mildly-to-moderately low range and are slower to speak than other children.

# Some common physical features of Down syndrome include:

- ✓ A flattened face, especially the bridge of the nose
- ✓ Almond-shaped eyes that slant up
- ✓ A short neck
- ✓ Small ears
- ✓ A tongue that tends to stick out of the mouth
- ✓ Tiny white spots on the iris (coloured part) of the eye
- ✓ Small hands and feet
- ✓ A single line across the palm of the hand (palmar crease)
- ✓ Small pinky fingers that sometimes curve toward the thumb
- ✓ Poor muscle tone or loose joints
- ✓ Shorter in height as children and adults

# Types of Down Syndrome

- There are three types of Down syndrome. People often can't tell the difference between each type without looking at the chromosomes because the physical features and behaviours are similar.
- **Trisomy 21:** About 95% of people with Down syndrome have Trisomy 21. With this type of Down syndrome, each cell in the body has 3 separate copies of chromosome 21 instead of the usual 2 copies.

- **Translocation Down syndrome:** This type accounts for a small percentage of people with Down syndrome (about 3%). This occurs when an extra part or a whole extra chromosome 21 is present, but it is attached or “trans-located” to a different chromosome rather than being a separate chromosome 21.
- **Mosaic Down syndrome:** This type affects about 2% of the people with Down syndrome. Mosaic means mixture or combination. For children with mosaic Down syndrome, some of their cells have 3 copies of chromosome 21, but other cells have the typical two copies of chromosome 21. Children with mosaic Down syndrome may have the same features as other children with Down syndrome. However, they may have fewer features of the condition due to the presence of some (or many) cells with a typical number of chromosomes.

# Causes and Risk Factors

- The extra chromosome 21 leads to the physical features and developmental challenges that can occur among people with Down syndrome. Researchers know that Down syndrome is caused by an extra chromosome, but no one knows for sure why Down syndrome occurs or how many different factors play a role.
- One factor that increases the risk for having a baby with Down syndrome is the mother's age. Women who are 35 years or older when they become pregnant are more likely to have a pregnancy affected by Down syndrome than women who become pregnant at a younger age.
- However, the majority of babies with Down syndrome are born to mothers less than 35 years old, because there are many more births among younger women.

# Diagnosis

- There are two basic types of tests available to detect Down syndrome during pregnancy: screening tests and diagnostic tests.
- A screening test can tell a woman and her healthcare provider whether her pregnancy has a lower or higher chance of having Down syndrome. Screening tests do not provide an absolute diagnosis, but they are safer for the mother and the developing baby.
- Diagnostic tests can typically detect whether or not a baby will have Down syndrome, but they can be more risky for the mother and developing baby. Neither screening nor diagnostic tests can predict the full impact of Down syndrome on a baby; no one can predict this.

# Screening Tests

- Screening tests often include a combination of a blood test, which measures the amount of various substances in the mother's blood (e.g., MS-AFP, Triple Screen, Quad-screen), and an ultrasound, which creates a picture of the baby. During an ultrasound, one of the things the technician looks at is the fluid behind the baby's neck. Extra fluid in this region could indicate a genetic problem.
- These screening tests can help determine the baby's risk of Down syndrome. Rarely, screening tests can give an abnormal result even when there is nothing wrong with the baby. Sometimes, the test results are normal and yet they miss a problem that does exist.

# Diagnostic Tests

- Diagnostic tests are usually performed after a positive screening test in order to confirm a Down syndrome diagnosis. Types of diagnostic tests include:
- Chorionic villus sampling (CVS)—examines material from the placenta
- Amniocentesis—examines the amniotic fluid (the fluid from the sac surrounding the baby)
- Percutaneous umbilical blood sampling (PUBS)—examines blood from the umbilical cord
- These tests look for changes in the chromosomes that would indicate a Down syndrome diagnosis.

# Other Health Problems

- Many people with Down syndrome have the common facial features and no other major birth defects. However, some people with Down syndrome might have one or more major birth defects or other medical problems. Some of the more common health problems among children with Down syndrome are listed below.
- Hearing loss
- Obstructive sleep apnea, which is a condition where the person's breathing temporarily stops while asleep
- Ear infections
- Eye diseases
- Heart defects present at birth
- Health care providers routinely monitor children with Down syndrome for these conditions.

# Treatments

- Down syndrome is a lifelong condition. Services early in life will often help babies and children with Down syndrome to improve their physical and intellectual abilities. Most of these services focus on helping children with Down syndrome develop to their full potential. These services include speech, occupational, and physical therapy, and they are typically offered through early intervention programs in each state. Children with Down syndrome may also need extra help or attention in school, although many children are included in regular classes.



Each person  
with Down  
syndrome has  
different talents  
and the ability  
to thrive.



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