



What Is ADHD?

Attention Deficit Hyperactivity Disorder (ADHD) is a recognized medical condition that often requires medical intervention. Establishing a diagnosis of ADHD is complex and requires information that can be obtained from multiple sources, including parents, physicians and teachers. The criteria for making the diagnosis of ADHD can be found in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV), published by the American Psychiatric Association. Once the diagnosis has been made, seeking treatment for ADHD is the next step. While ADHD cannot be cured, treatment can help manage the symptoms of inattention, hyperactivity and impulsivity.¹

A Total Treatment Program

There are two main approaches for the treatment and management of the symptoms of ADHD:

1. Behaviour modification
2. Medication

When used together, medication and behavioural treatments help leverage the benefits of each other. Medication allows someone with ADHD to focus better and be less impulsive and hyperactive, while behaviour modification helps substitute constructive habits for unwanted ones through a program of monitoring and setting goals and rewards.



Behaviour Modification

Behaviour management techniques are useful for parents and teachers, in home and school settings. Developing consistency across school, home, and community settings and among parents, teachers, and therapists is crucial to the success of behavioural therapy but can be a challenge to achieve. In order to achieve positive results, it is important that anyone who interacts with the child with ADHD (parents, teachers, healthcare professionals, etc.) be actively involved and supportive of the child's behavioural management therapy.



Behaviour management, as part of a total treatment program, is an important type of therapy for ADHD. Some behavioural adjustments may include:

- Asking your child's teacher to move your child to the front of the room
- Establishing daily checklists
- Focusing on success
- Reinforcing your child's self-esteem and good behaviour

Medication

Studies show that children who receive adequate treatment for ADHD have fewer problems with school, peers and substance abuse and show improved overall functioning, compared to those who do not receive treatment.^{2,3,4} Research from a landmark study by the National Institute of Mental Health found that children who received medication, alone or in combination with behavioural therapy, showed significant improvement in their behaviour and schoolwork, as well as better relationships with their classmates and family.³

There are several types of prescription medications available for the treatment of ADHD symptoms. Your doctor can help you decide which medication therapy is best for your child.




The Use of Stimulant Medication in the Treatment of ADHD

Stimulants are the most commonly prescribed medication for the treatment of ADHD and work by increasing certain chemicals in the brain.¹ Research shows that stimulant medications benefit 70 to 90% of people with ADHD in treating the major symptoms of inattention, hyperactivity and impulsivity.¹



How Do Stimulant Medications Work?

You may be wondering why a stimulant medication is effective in treating someone with ADHD. Recent clinical research has shown that certain areas of the brain that are believed to be important for concentration, weighing consequences, inhibiting actions and foresight are under-aroused in people with ADHD.⁵ One theory is that stimulant medications work by arousing these areas of the brain, allowing the person to concentrate better and be less impulsive and hyperactive.⁵



Types of Stimulant Medication

The Canadian Paediatric Society (CPS) recommends that the first principle of medical management for ADHD is to choose a stimulant, most often methylphenidate.⁶ Below are the approved medications for the treatment of ADHD:

- Methylphenidate (e.g. CONCERTA*, RITALIN®, BIPHENTIN®)
- Dextroamphetamine (e.g. DEXEDRINE®)
- Mixed salts of amphetamine (e.g. ADDERALL XR®)

In Canada, methylphenidate is prescribed more often than amphetamines.⁷

Stimulant medications come in three general categories based on their duration of action following a dose:

Short-acting⁸

- DEXEDRINE®
- RITALIN® IR (immediate release)

The recommended dosing for DEXEDRINE® is 2-3 times per day. RITALIN® IR is typically taken 3 times per day.



Intermediate-acting



- DEXEDRINE® SPANSULES®
- RITALIN® SR (slow release)


Intermediate-acting medications are taken 1-2 times per day.

Long-acting

- ADDERALL XR®
- CONCERTA®
- BIPHENTIN®



Long-acting stimulants are taken once a day in the morning, with onset of action within 2 hours, typically lasting 12 hours.⁸

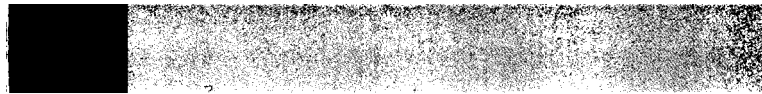




What Are the Most Common Side Effects of Stimulant Medication?

Some stimulant medications for ADHD have been studied for over 30 years.⁹ Side effects do exist with stimulants, with the most common ones being insomnia, decreased appetite, stomach ache, headache, and excessive jitteriness.¹⁰





Another Medication¹⁶

- Another medication that was recently approved for use in Canada in the treatment of ADHD is STRATTERA® (atomoxetine). STRATTERA is a selective norepinephrine reuptake inhibitor (SNRI) and is a relatively new medication.

 is typically taken 1-2 times per day.

Clinical studies have shown that STRATTERA is effective in treating the symptoms of ADHD. The most common side effects in children and adolescents are: decreased appetite, dizziness, tiredness, irritability, indigestion, nausea and vomiting.

How Can I Tell If the Medication Is Working?

Medications should improve the ability to focus and attend to tasks, and improve disruptive and hyperactive behaviours.¹ Be sure to monitor any and all changes in your child's symptoms and report them to your doctor. Also remember to discuss with your doctor possible side effects and any other medication that your child is taking. This information will help your doctor make any necessary adjustments in medication.¹





Working Towards Treatment Goals

For best results in treating ADHD, a total treatment program is recommended, which includes implementing supportive parenting and teaching techniques and finding the right medication.¹⁷



The goal is to achieve “functional remission” – in other words, the individual while on medication demonstrates only very mild symptoms of ADHD.¹⁸ If remission is achieved, it is important that treatment be continued for the remission of symptoms to continue. The best way to work toward your treatment goals is to consistently collaborate with your healthcare professional team and your child’s teachers.

Working towards treatment goals is important since individuals with ADHD are at risk of repeating a grade, not finishing high school, substance abuse, serious car accidents, and being fired from a job.^{19,20,21}



Other Interventions

Many parents are concerned about giving their child medication, so they may turn to complementary and alternative medications.¹¹ There are a number of other interventions for ADHD, including dietary replacement (exclusion or supplementation); various vitamin, mineral or herbal regimens; biofeedback; perceptual stimulation and other methods.¹² Dietary interventions are the most popular alternative therapy in ADHD¹³ and indeed, individualized dietary management may be effective in a small, select group of children, specifically in relation to allergic symptoms or migraine headaches.¹⁴ However, while some of the above interventions have been studied, they have not shown any consistent results and there are no clinical data to support these interventions.¹⁴

Your doctor can provide balanced advice on a range of treatment options, including all benefits and risks of each of the different types of therapies.



ADHD and Comorbid Disorders

One of the difficulties in diagnosing and treating ADHD is that it is often accompanied by other coexisting conditions.¹ For example, some people with ADHD may also have one or more of the following disorders:¹⁵

- conduct disorder (CD)
- oppositional defiant disorder (ODD)
- anxiety disorders
- mood disorders
- learning disabilities
- other disorders (including Tourette's syndrome, mental retardation, and borderline personality disorder)

These children may require different interventions to help treat the coexisting disorder as well as the symptoms of ADHD. Talk to your doctor if you are concerned that your child with ADHD may also have a coexisting disorder.

Talking to Your Doctor

To assess your child's current ADHD therapy, consider these questions and then talk to your doctor about developing the most effective total treatment program for your child.

Questions to Ask Your Doctor

Asking the following questions may help you get the most out of the next visit with your child's doctor.

- Is my child on the best total treatment program to address ADHD symptoms?
- How can I improve my child's ADHD symptom management?
- What is the proper medication dose for my child and should we expect to change the dosage to find what's most effective?
- Can you suggest any strategies to help me better measure my child's progress in ADHD symptom management?
- How can I communicate that progress in a way that is useful to you?



Before You See Your Doctor...


Does your child's current treatment program meet his/her needs?

- Is there room for improvement in how your child's treatment program helps to manage the symptoms of ADHD?
- If your child needs to take medication more than once per day, does this present any problems?
- Does your child require a specialized education program?
- Are your child's symptoms worse when he or she comes home from school?
- Does your child need to take ADHD medication at school? Does this present any problems?
- Are the behavioural modification techniques helping your child?
- Do the effects of your child's ADHD medication last long enough?

Children with ADHD differ in their needs and should not be subjected to a one-size-fits-all solution. That is why it is so important that parents, children, and healthcare professionals have access to a full range of medications and treatment options to deal with ADHD. Talk to your doctor about what treatment options would best suit your child.

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