

ADHD: What Educators Need to Know



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The term ADHD stands for Attention Deficit Hyperactivity Disorder and it is a neurodevelopmental disorder that impacts a person's thinking, feelings, and behaviour. ADHD is one of the most common mental health diagnoses in children and adolescents, affecting approximately 5% of young people around the world.

ADHD has three main types of presentations:

1. **'Inattentive'** sub-type: It may seem like the young person does not hear instructions, they have difficulty staying focused on some tasks, they tend to lose things, and they have struggles staying organized.
2. **'Hyperactive-Impulsive'** sub-type: These individuals are easier to spot because they are often moving or fidgeting and find it difficult to stay seated. They may also be very talkative and tend to interrupt others.
3. **'Combined' sub-type** – these individuals have both the 'Inattentive' and the 'Hyperactive-Impulsive' characteristics. (Most common category)



All children have some of these symptoms from time to time, but children with ADHD have many symptoms in several of areas of their lives (such as home, school, and extracurricular activities) to the extent that they begin to interfere with their success and their happiness over an extended period of time.

Medical professionals have identified ADHD for more than one hundred years by a variety of terms and it has been studied extensively for over five decades. The prefrontal cortex (the "brain boss") is not performing at the level we would expect for the individual's age. In fact, we can see some difference between brains with, and without, ADHD through neuroimaging. When we look at pictures of an ADHD brain we can see disparities in size and level of activity in certain areas, compared to a brain of the same age without ADHD.



ADHD is a highly genetic disorder that runs in families. There are also other factors that may play a role in the development of ADHD, such as early injuries to the developing brain or exposure to toxins. ADHD is NOT caused by poor parenting, too much sugar, too much television, not enough exercise, or playing video games.

HOW IS A STUDENT DIAGNOSED WITH ADHD?

There may be regions in which ADHD is over-diagnosed due to poor diagnostic practices. However, there are also many young people with ADHD who do not get identified and, most importantly do not receive treatment. Unfortunately, there is no blood test or other quick way to identify the disorder clearly. To properly diagnose ADHD, a

thorough investigation is necessary. This may include an examination by a medical doctor, the completion of rating scales by parents and teachers, and/or a psycho educational assessment by a psychologist to rule out other explanations for the symptoms.

It is important to note that ADHD does not equate to intelligence; individuals with ADHD may be in the gifted range, in the average range, or lower range of intellectual functioning. However, students diagnosed with ADHD do have an increased chance of also being diagnosed with other disorders, such as: learning disabilities, anxiety, and depression.

HOW IS ADHD TREATED?

There is no way to “cure” ADHD. Research suggests that there are lifestyle choices that may help to improve ADHD symptoms, particularly regular aerobic exercise, omega-3 fatty acid supplements, and sufficient sleep. However, there are two main treatment areas which have received the most research support for decades: behavioural interventions and medication. Not surprisingly, research studies show that a combination of behavioural interventions and medication is the most effective for supporting young people with ADHD to be successful.

Behavioural Interventions

‘Behavioural interventions’ can be very helpful in helping young people manage their ADHD symptoms. The term ‘behavioural interventions’ generally refers to setting up the young person’s environment (at home; school; extracurricular activities; etc...) to help them best overcome their challenges. The goal is to have them engage in strategies that can help them regulate their thoughts, behaviour, and emotions and also to make the rewards and consequences of the young person’s behaviour more clear to them. In schools, teachers need to identify realistic expectations and provide clear, consistent, and predictable guidelines for student behaviour.

Medication

Parents need to determine if medication is the right course of action for their child, but it is important for teachers to know that most kids diagnosed with ADHD do benefit from medication. Of course, the success of medication begins with a proper diagnosis and a knowledgeable prescribing doctor who collaborates with the family and the school to identify the type of medication (e.g., stimulant versus non-stimulant) and dose that provides the young person with the most benefits and the least side effects. For some young people finding the right medication and the right dose is achieved quickly, but for others it can be a more time-consuming process. Medication does not ‘fix’ the brain, however, what it does is allow their brains to slow down, be less reactive, be more receptive to information, and be more likely to develop skills and strategies to meet their goals.



HOW DOES HAVING ADHD IMPACT A STUDENT IN MY CLASSROOM?

ADHD is a “brain boss” problem, as it is essentially a disorder of self-regulation. Young people with ADHD often appear more immature than other kids their age because they have a poor ability to regulate (or control) their behaviour, thinking, and emotions. They may be impulsive in each of these areas, for example, they may be prone to acting without thinking, interrupting others, and/or struggling to control their



feelings. Not surprisingly then, ADHD makes it more difficult for young people to do what is expected of them at home, in school, and in the community.

A young person with ADHD may have the ability to do a certain task, but their performance on that task likely varies from day-to-day or even moment-to-moment. Their performance depends on their interest in the task, how fatigued their brain is, and factors in their environment (such as the amount of structure, the distractions, and the rewards). Thus, one of the hallmarks of ADHD is that the individuals are 'consistently inconsistent'.

Sometimes we see them struggle with staying focused on a task, especially one that is difficult for them or one that they think is boring. On the other hand, sometimes we see them focus (or 'hyper-focus') for hours on something that is particularly interesting or rewarding to them, such as video games. The difficulty is in regulating, or shifting, their attention.

Students with ADHD are '*consistently inconsistent*' in terms of their performance. This can be frustrating to teachers and lead them to incorrectly assume that the student is being lazy, oppositional, or manipulative. An individual with ADHD may have the *knowledge* and *ability* to do a certain task, but their *performance* on that task likely varies day-to-day, or even moment-to-moment. Their performance depends on their interest in the task, how fatigued their brain is, and other factors in their environment (such as the amount of structure, the distractions, and the rewards).

Young people with ADHD, particularly those who are not receiving treatment, face daily struggles, and even failures, in many areas of their life which may impact the way they feel about themselves. For example, young people with ADHD may have difficulty getting along with other kids their age because of their impulsivity and immaturity and as a result, feel rejected and lonely.

HOW CAN I SUPPORT STUDENTS WITH ADHD IN MY CLASSROOM?

No two students with ADHD are exactly the same, so teachers will need to experiment with the strategies that are best for each student. Below are eight key principles to keep in mind when working with students with ADHD, along with associated recommendations to try in the classroom.

1. Remember that they are interest-seeking missiles! The brains of students with ADHD are very active, but their ability to control their attention is lagging. Dr. Edward Hallowell refers to this as having a Ferrari engine for a brain, but with bicycle brakes. As a result, their brain is drawn to the most interesting or rewarding things in their environment, and their ability to shift their attention is compromised. In order to get them to concentrate on academic tasks we need to keep tasks manageable (e.g., short and appropriately challenging), as well as interesting (e.g., make it relevant to them) and/or rewarding (e.g., they get recognition for their efforts).

- Whenever possible allow students to set their own pace for task completion.
- Keep instructions short, specific, and direct. Do not give elaborate, multi step directions.



- Use novelty and humour to keep lessons interesting.
- Vary your tone of voice and/or your proximity to them to maintain their attention.
- Make academic assignments brief, or, chunk larger projects into phases.
- Provide opportunities for active involvement with lessons, e.g., let them conduct demonstrations, pass out papers, or help with audio-visual aids.
- Reduce tempting distractions, such as unnecessary electronics, from their sight.
- Engage in direct instruction (teacher directed activities) to improve on-task behaviours.
- On-task behaviours tend to deteriorate over the course of the day, so whenever possible, schedule academic instruction in the mornings.
- Bring their attention to the most important or difficult aspects of a lesson.
- Provide visual reminders and cues about the classroom expectations.

In general, young people with ADHD will learn best by *doing* (& experiencing natural consequences or rewards), rather than *discussing* strategies at length.

2. Fuel their tank. It is cognitively taxing for a student with ADHD to get through a school day. Dr. Russell Barkley refers to this temporary depletion as an individual's limited 'resource pool of effort'. There are numerous evidence-

- based ways to replenish our "resource pool of effort", such as: routine physical exercise; periodic 10 minute breaks; visualizing the rewards or outcomes; periodic small rewards; engaging in self-affirming statements of self-efficacy; experiencing positive emotions; or consuming glucose-rich beverages.
- Regularly provide opportunities for physical movement, such as a delivering a note to the office, sharpening a pencil, going to the water fountain, or water plants.
- Recognize that at times you will need to repeat directions and/or provide reminding cues.
- Give the whole class opportunities for regulation breaks. This could be a guided meditation, jumping jacks, or dancing (e.g., "Go Noodle").
- Create a subtle communication system for when you, or the student, identify that they need an extra regulation break.
- Find ways for students to regularly experience success, e.g., engage in activities they are good at; share items they are proud of; or feel a sense of connection with other students.
- Allow drinks in the classroom.
- Recess is necessary! Don't take it away as a punishment.

3. Let them fidget! Fidgeting actually helps kids with ADHD access their working memory. There is significant scientific evidence demonstrating that individuals with ADHD are able to concentrate better when they are allowed to move. The more difficult the task is for them, the more they may need to move. The brains of students with ADHD are in a constant state of under-arousal, and additional sensory input, (such as movement) can increase the alertness of their brain and support executive functions, particularly their working memory.



- Provide seating that allow student to fidget (e.g., a swivel chair; a wobble cushion; a wobble stool; or an exercise ball).
- Tie a large rubber band across the front legs of their chair for them to push and pull with their legs.
- Allow students to use hand fidgets that are not distracting to other peers (e.g., squeeze balls).
- Encourage doodling.
- Offer background noise or music.
- Allow students to move around at the back of the classroom.
- Provide flexible work locations.
- Let them use chewing gum.



4. Make time more relevant. One of the implications of ADHD is that the student may not have the same sense of time, or urgency, that others have which can contribute to significant frustration. The term “time blind” was coined by Dr. Russell Barkley, as students with ADHD are primarily living in the now. This explains why they are often late or unprepared for expectations.

- Avoid lectures about what they should do. They probably already know, but the problem is the regulating of their attention to focus on the task in the expected timeframe. They will learn much more from timely contingencies (rewards and consequences) for their behaviour.
- Provide them with warnings about upcoming transitions (such as, “in three minutes we are going to have to stop playing and go back to our desks”).
- Help students experiment with strategies and tools that might work for them. There are many gadgets or apps that we can use to help students have a better sense of timing, such as a count-down clock they can see which gives them a visual representation of how much time is left to perform an activity. As well, smartphone alarms can be very helpful for the student to remember transitions and events.

5. Be proactive. Sometimes we can feel like we are constantly reacting to a student’s behaviour giving lectures about why they should have done something, or giving punishments. Being reactive is exhausting and it is generally not very successful in changing a student’s behaviour over time. We can anticipate struggles students with ADHD will have, and carefully construct the classroom in a predictable and consistent way to address these.

- Have realistic expectations and set standards of success that are achievable for the student.
- Have consistent structure and routines that are clearly set out and visible (such as a schedule on the wall, or checklists for various times in the day).
- Don’t just tell them what you don’t want them to do, tell them exactly what you do want.
- Make sure that you truly have their attention before you start speaking and then have them repeat back what we said to ensure they heard and understood the request.
- Provide expectations in a portable format, for



example, a short list on a small white board that they can carry with them.

- Be a coach! Predict the most difficult parts of a task (e.g., transitions or unstructured social time) and be there to provide in-the-moment coaching to support their success.

6. Use reinforcement programs wisely. Students with ADHD really need to experience the results of their choices in a timely manner in order to learn. The purposeful use of contingencies (rewards and consequences) allows us to reinforce appropriate or desired behaviours and, discourage inappropriate or undesired behaviours.

- Students are far more likely to respond to rewards (such as, a sticker on a chart to earn a prize or special opportunity) and consequences (such as, the loss of a privilege) if these things are something that is meaningful to them. Involving students in developing such plans is the best way to make it relevant to them.
- Rewards and consequences are best when they are delivered: immediately; frequently; and consistently. When teachers build rewarding opportunities (such as free reading or “tech time”) into each school day it provides a natural consequence or reward if the students are able to attain the opportunity.
- Ensure that reinforcement programs are realistic and the student is able to experience success each day.
- Ensure that the student is not embarrassed or demeaned by the contingencies.
- Periodically re-assess the plans you are implementing. Behavioural interventions need to evolve as the student grows, new challenges appear, or the novelty of a plan fades.



7. Be a positive connection in their life. Relationships with caring adults are especially valuable to students with ADHD. When a student’s ability to self-regulate is compromised they often struggle to feel good about themselves since they experience negative feedback from adults and peers all day long. When you take the time to foster a sense of understanding and connection with a student they see their value through your eyes. The student will feel better about themselves, and they will be more receptive to constructive feedback from a teacher they feel connected to.

- Explore the interests, strengths, and joys of the student.
- Find a point of connection that you share with the student, e.g., a favourite sport, animal, or superhero.



- Give specific praise and recognition whenever appropriate.
- Remember and celebrate their special occasions and/or accomplishments.
- Give them an important responsibility in the classroom.
- Keep track of the ratio of positive to negative feedback you provide the student, and aim for a 3 to 1 ratio.
- Don’t forget the profound value of giving a struggling student eye contact and a genuine smile.

8. Teach them about their brains. Educating students about their brain is an important way to help them not feel bad about themselves and the challenges they face. All students have strengths and weaknesses in their cognitive profile. A student with ADHD needs to understand how the disorder impacts them, while also recognizing that the diagnosis is only a small part of who they are. A young person is more likely to advocate for themselves (such as, request accommodations or use strategies they have been taught) if they understand the disorder. As well, other students in the classroom are more likely to have empathy for a student with ADHD if they understand each other's learning differences.

- Have the entire class watch age-appropriate videos on how the brain works.
- Create a 'menu' of strategies for the student to try in different circumstances.
- Work together with the student to identify a list strategies that work best for them.
- Support and scaffold their self-advocacy skills overtime.
- Help them see and embrace their strengths (academic, social, artistic, and/or athletic).



The challenges of ADHD will not be completely eliminated for students. However, with proper classroom supports over time, students will be able to feel successful and take increasing ownership for their learning as they develop new skills.

FOR FURTHER INFORMATION:

- Foothills Academy:
 - * Online Professional Development and Parent Education courses [FoothillsAcademyOutreach.org](https://www.foothillsacademy.org/outreach)
 - * Community Services programs and services - [FoothillsAcademy.org](https://www.foothillsacademy.org)
- Centre for ADHD Awareness Canada (CADDAC) - caddac.ca/adhd
- Canadian ADHD Resource Alliance (CADDRA) - caddra.ca/
- Understood - [understood.org](https://www.understood.org)

This information was prepared by Dr. Karen MacMillan (Registered Psychologist), Executive Co-Director of Foothills Academy, a full-time school program and Community Services.

Community Services at Foothills Academy assists individuals of all ages with Learning Disabilities and/or ADHD in the Calgary community and well beyond. We are open year-round and have a wide-range of financially accessible services and programs. Our goal in Community Services is to offer wrap-around support to individuals and families (whether they are in our school or not) in order to help them thrive in the face of LD and ADHD!



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