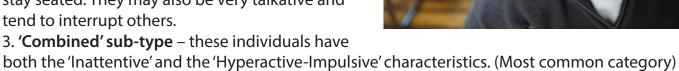


ADHD: What Parents Need to Know

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.



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.

There may be regions in which ADHD is overdiagnosed 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 psychoeducational assessment by a psychologist to rule out other explanations for the symptoms.

HOW DOES HAVING ADHD IMPACT MY YOUNG PERSON?

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 momentto-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'.

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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.



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. Also, because children with ADHD are 'consistently inconsistent' in terms of their performance it can be frustrating to those around them and it can be easy for adults to incorrectly assume that the young person is being lazy, oppositional, or manipulative.

HOW LONG DOES ADHD LAST?

The ADHD symptoms a young person experiences tend to shift as they age. For example, the hyperactive symptoms tend to decrease as a child becomes a young adult but, the problems associated with their attention may worsen as the demands of school work or employment increase.

Approximately two-thirds of young people with ADHD continue to have enough symptoms to meet the criteria for the disorder into adulthood. The extent to which ADHD impacts their life will vary depending on the severity of their symptoms, the supports in their environment, the coping strategies they learn, and the context in which they live (such as being able to find a career that they love).

WHAT ARE THE INCREASED RISKS FOR A YOUNG PERSON WITH ADHD?

Research shows that the impulsivity of young people with ADHD puts them at greater risk for many issues such as substance use, unplanned pregnancies, and driving accidents. As well, a young person with ADHD has an increased chance (compared to young people without ADHD) of being diagnosed with a variety of other problems such as anxiety, depression, learning disorders, eating disorders, and sleep problems. Some of the increased risks may be due to common genetic origins, but it may also be related to the consequences of having ADHD that is not properly treated.

However, it is important to remember that we are talking about an increased *chance* of problems – they are NOT inevitable. Proper diagnosis and treatment of ADHD are important ways to decrease the risks your child will face.



TREATING ADHD

Psycho-education (or learning more about ADHD) is an important way to reduce stress for everyone in your child's life. When teachers, coaches, and caregivers learn about ADHD they are less likely to be frustrated with the young person, while being more likely to have appropriate expectations and implement helpful strategies. A child is less likely to feel bad about themselves if the people around them understand their struggles, as well as the best ways to support them. A young person is also more likely to advocate for themselves (such as request accommodations or use strategies they have been taught) if they understand the disorder.



There are many items (such as supplements and programs) which are marketed to treat ADHD. Unfortunately, most of these options have not yet been supported by sufficient research. There are a few lifestyle factors which have been proven to help to decrease ADHD symptoms, such as: sufficient sleep; omega-3 supplements; and aerobic exercise.

There is no way to "cure" ADHD, but decades of research has shown that there are two forms of treatment that are the most effective are: behavioural interventions and medication.

1. BEHAVIOURAL INTERVENTIONS

'Behavioural interventions' can be very helpful in helping young people manage their ADHD symptoms. The term 'behavioural interventions' generally refers to the adults setting up the child's environment to help them best overcome their challenges and making the rewards and consequences of the young person's behaviour more clear to them. These types of interventions may be referred to as 'behavioural therapy' or 'parent training' approaches.

Sometimes we can feel like we are constantly reacting to our children's behaviour by frequently reprimanding them or losing our temper. Reactive parenting is exhausting and it is generally not very successful in changing the young person's behaviour over time. We are much more likely to be successful if we stop being reactive to our children's behaviour and work at being more proactive by structuring the young person's environment to be most successful.

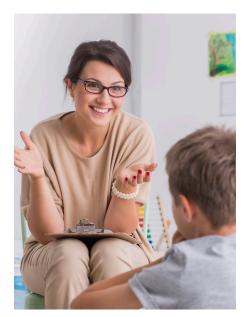
In general, young people with ADHD will learn best by doing (& experiencing natural consequences or rewards), rather than discussing strategies at length.

When we have consistent expectations and routines that are clearly set out and visible (such as a schedule on the wall, or checklists for various times in the day) the young person is much more likely to do what we want them to do. One of the best ways to increase a young person's compliance is to catch them doing well and provide them with specific praise (such as "Wow, I really appreciate that I only had to remind you once to set the table tonight!"). Young people, especially those with ADHD, 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 really important to them and they are used immediately after the behaviour.



One of the implications of ADHD is that the young person may not have the same sense of time or urgency, that others have which can contribute to frustrations in the parent-child relationship. We can help by providing them with warnings about upcoming transitions (such as, "in three minutes we are going to have to stop playing and begin picking up"). There are also many gadgets or apps that we can use to help young people 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 young person to remember transitions and events.

Young people with ADHD often become distracted or sidetracked, as they are working towards a goal. If we are giving the young person instructions, we need to make sure that we truly have their attention before we start speaking and then have them repeat back what we said to ensure they heard and understood the request. Information is most likely remembered if we provide only small, concise amounts at a time and reduce the distractions in their environment. We can also help them by making the information particularly memorable through visuals (chart, list), a joke, a rhyme, or song. In general, young people with ADHD will learn best by *doing* (& experiencing natural consequences or rewards), rather than *discussing* strategies at length.



As parents, we need to periodically re-assess the plans we are implementing. Unfortunately, sometimes a reward program or other intervention works really well for a period of time and then seems to become less effective. Behavioural interventions need to evolve as the young person grows, new challenges appear, or the novelty of a plan fades. We also need to advocate for our child, and teach them how to advocate for themselves; to incorporate strategies in other areas of their lives, such as school and extracurricular activities.

It takes a lot of effort and planning, but when we consistently use behavioural interventions, we parent in more proactive ways so the young person is more likely to experience success and we are less likely to feel frustrated with them.

It is important for parents to know that 'talk therapy' may be valuable for young people with ADHD if they have also developed another problem such as excessive worries, and/or feelings of depression, which are most likely to respond to Cognitive-Behavioural Therapy (or CBT). CBT involves working on both changing behaviours AND the combatting unhelpful thought processes that the young person may have.

2. MEDICATION

As a parent, deciding whether or not to put your child on medication can be very difficult, especially with so much contradictory information in the media. Parents need 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 you and your child's school to identify the medication and dose that provides the young person with the most benefits and the least side effects.

The two main categories of ADHD medication are stimulants and non-stimulants. First, lets discuss stimulant medication, which is the most widely known. There are two types of stimulants: Methylphenidate-based medications (such as Ritalin, Concerta, and Biphentin) and Amphetamine-based medications (such as Dexedrine, Adderall, and Vyvanse). Each of these medications aims to "stimulate" the parts of the brain that are under-active in people with ADHD. Some young people may respond better to one type of stimulants than the other. Each medication is available in different doses (or amounts) and different formulas, such as immediate-release (which last a

short period of time) or extended-release (which can last up to 14 hours). Stimulants have been prescribed for over 50 years and many, many studies have been conducted during that time which demonstrates their effectiveness and safety in treating the symptoms of ADHD.

What are the side effects of stimulant medications?

Common side effects are a decrease in appetite and sleep, both of which may lessen over time. Other side effects could include tics, headaches, or changes in mood. Side effects vary from person to person, and they are also related to the specific form of medication and dosage. The appropriate dose is not necessarily related to the young person's age, weight, or even severity of symptoms. Identifying the right dose for your child will likely require some gradual experimentation under the supervision of the prescribing doctor. The general approach is to start with a low dose and slowly increase as needed. Of course, any concerning changes in the amount of worries or



sadness your child demonstrates should be reported to your doctor right away!

Recent long-term research has shown that even though taking stimulant medication may slow down your child's growth, the differences are primarily in the first couple of years of use and that overtime most young people catch up with their peers who were not taking medication.

Can taking stimulant medication lead to substance abuse?

While young people with ADHD do seem to be at a higher risk for substance abuse than other kids, the risk is because of the disorder, not taking medication. There is no evidence that using stimulant medication to treat ADHD leads to substance abuse.

Does taking stimulant medication have long-term effects on my child?

Stimulants act quickly and the effects (both the benefits and any side-effects) are out of the individual's system by the following day. Studies that follow youth with ADHD over a long period of time do not show a negative impact on mental health or other types of important functioning for young people taking medication, compared to those who are not.

Some studies using brain scans do suggest that with the on-going use of stimulants the brain may adapt to the effects of the medication which would explain why, for some individuals, the medication does not seem to work as well over time. However, we also know that there are significant risks to not treating ADHD (such as higher rates of school failure, conflict with authorities, and dangerous behaviours). As parents we have to ask ourselves - even if stimulant medication does become ineffective after a couple of years, does that mean we shouldn't use it to decrease our child's risks now?

The second category of ADHD medication is non-stimulants (such as, Atomoxetine or Guanfacine) which are relatively new. Initial research seems to show that the effectiveness of non-stimulants may not be quite as strong as it is for stimulants, but this category of medication could be the best choice for some young people, such as those with anxiety disorders.

There are a small percentage of young people who do not seem to improve or experience too many side effects. However, the majority of young people with ADHD do benefit from medication. 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 trial & error process.

In summary, medication does not directly teach young people needed skills (such as self-regulation skills), however, what it does is allow their brains to slow down, be less reactive, be more receptive to information, and be more likely to focus on their goals. 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 over time.



FOR FURTHER INFORMATION:

- Centre for ADHD Awareness Canada (CADDAC) http://caddac.ca/adhd/
- Canadian ADHD Resource Alliance (CADDRA) https://www.caddra.ca/
- Understood 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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