

## **CADDRA ADHD INFORMATION AND RESOURCES**

*Adapted for CADDRA with permission, by Dr Annick Vincent, Centre médical L'Hôtrière, Clinique FOCUS, Québec.*

### **Description**

Attention Deficit Hyperactivity Disorder is a neurological condition that leads to difficulty regulating attention, controlling excessive physical activity, and impulsivity.

ADHD affects about one in twenty children and follow-up studies have shown that symptoms persist into adulthood for more than half of these. A recent U.S. study estimated that 4% of adults have ADHD. Adults with ADHD suffer from distractibility and mental restlessness, disorganization and procrastination, leading to difficulties beginning and completing tasks and with time management and impulsivity. These symptoms can be as impairing at work as in a person's private life. At times, people suffering from ADHD also have difficulty regulating their emotional responses. They are referred to as being "thin-skinned" or "hypersensitive" and as having a "short fuse". Often, these individuals deal with their physical restlessness by channelling it into work or sports activities. Some will "self-medicate" by taking stimulants such as caffeine or nicotine or illicit drugs such as cannabis or cocaine.

Due to the impact of their symptoms, many people with ADHD also suffer from poor self esteem and a chronic sense of under-achievement.

### **Causes**

While we do not know the exact cause of ADHD, science shows that in most cases ADHD has been inherited. Occasionally, ADHD can also be caused by a traumatic brain injury, lack of oxygen, neurological damage or infection, prematurity, or prenatal exposure to substances such as alcohol or nicotine.

ADHD is a neurodevelopmental condition. It is not caused by poor parenting or by psychological stress, although raising an ADHD child can be both challenging and stressful. However, environment can impact the expression and progression of ADHD. When ADHD is treated properly, physicians are usually able to decrease the symptoms and improve functioning. Physicians can also recommend adaptations at school, college or in the workplace and empower the patient and/or parents so that they do not feel alone.

Scientific research has revealed some dysfunction in particular information neurotransmitters, such as dopamine and noradrenaline. These chemicals help to carry signals across synapses in the brain. Studies of brain function in persons with ADHD have revealed an impairment of the regions responsible for controlling or inhibiting certain behaviours, such as initiating tasks, being able to stop unwanted behaviour, understanding consequences, holding information in the mind and being able to plan for the future. In ADHD, the information transmission network appears to be somewhat impaired - as if the "go" and "stop" signals are delayed.

## **Why consult a doctor?**

Patients seek medical attention for many different reasons. If a child or adolescent is experiencing difficulties regulating his/her attention or is demonstrating hyperactivity in the classroom, educators may report to the parents on what they are seeing and recommend assessment. Increased media and online information on ADHD has resulted in a rise in self-referral among adults. Once a child is diagnosed, parents may seek out an assessment if they recognize ADHD symptoms in themselves. Whatever way a patient comes to a physician, the first task for the individual will be to explain his/her concerns and problems.

## **Assessment**

Just because a person has difficulty concentrating, or can not sit still, this does not mean that he/she has ADHD. The only way to establish this is through a diagnostic assessment. This takes the form of an interview with the patient or his/her parents where symptoms and impairments are discussed. ADHD is only diagnosed if the symptoms are impairing. If this is the case, the doctor, patient and/or family must decide whether treatment is needed and, if so, what kind. It is essential to also look at any associated problems and conditions in order to establish an effective and personalized treatment plan.

Psychological evaluations can assist in assessing whether any learning and/or social impairments exist. This will help to exclude any other possible diagnoses. However, psychological tests and rating scales alone cannot be used to make a diagnosis without a full medical evaluation. While ADHD is a medical diagnosis, there are no laboratory tests to determine if it is present.

## **Diagnosis**

ADHD treatment begins with the confirmation of the diagnosis. This is followed by an explanation on how the symptoms, which the child, adolescent or adult has been exhibiting, can be explained by the diagnosis. A diagnosis can be bittersweet and acceptance may take time. On one hand, a patient and/or parent is often relieved to know what the problem is and, in the case of parents, that poor parenting is not the cause. However receiving a diagnosis of a chronic condition is generally not perceived as good news.

## **Treatment**

While medication can dramatically improve symptoms, medication alone is never enough. In the case of a child or adolescent, the parents, child and school must work together to understand that a diagnosis is not “an excuse” but will require the implementation of learning strategies and new parenting methods. Work place accommodations may be required for adults. Access to resources, such as parent training or (for adults) cognitive behavioural therapy, is slowly becoming more available through the public health care system.

When a person continues to be incapacitated by their ADHD symptoms, medication may be helpful and a medication trial should be initiated. A trial of more than one medication and more than one dose may be required in order to find the optimal one. Medication must be evaluated at least twice a year, so no medication decision is forever.

Medication for ADHD can work somewhat like glasses for those with vision problems. It can help improve the brain’s ability to focus. It improves the flow of signals along synapses allowing better information transmission.

There are many different types of medication available. The most common are stimulants of which there are two types, methylphenidate and amphetamines. Each of these medications comes in short-, intermediate- and long-acting forms. The most common side effects of stimulants are decreased appetite, trouble sleeping and becoming quiet, sad or irritable when the medication wears off.

The second type of medication is called a “nonstimulant”. It works by a completely different mechanism. This medication becomes effective once a certain level is reached in the blood stream. If, after a month of taking the medication at the full dose level, there is a 25% improvement in symptoms, the patient will probably respond well. However, the medication will continue to improve symptom control for up to four months. Your doctor will start all medication at a low dose and slowly increase the dose until maximum symptom control is experienced with the minimum amount of side effects. At this time another evaluation should be carried out to decide if added interventions are required.

Any co-existing mood or anxiety disorder must be taken into account in a treatment plan. Stimulant medication can sometimes aggravate certain anxiety disorders. Several antidepressants act on noradrenaline or dopamine and can also assist with ADHD symptoms but clinical studies have not yet studied the effects of these products specifically on ADHD. When ADHD and depression or anxiety disorder exist together, the doctor may begin treatment with a medication used to treat these disorders before implementing an ADHD-specific treatment. Ideally, the final treatment or treatments will consist of a single medication or a mix of medications that will provide the utmost symptom control with the least number of adverse effects.

ADHD medications have an effective rate of 50% to 70%. Although generally well tolerated, all drugs can produce side effects. Discuss any treatment being considered beforehand with your doctor and pharmacist. Although your doctor will provide you with research-based information on treatment options, the only way to determine the impact on your child or yourself is to go through a supervised medication trial.

Additional information on ADHD medications is available on the CADDAC website ([www.caddac.ca](http://www.caddac.ca)). Select the “ADHD Subjects” tab along the top menu and scroll down to “Treatments” for information on children and adolescent or adult medications.

## **List of Resources on ADHD**

### **Support Groups**

Look for support groups in your area on the CADDAC website ([www.caddac.ca](http://www.caddac.ca)) under Resources.

### **Websites**

Canadian ADHD Resource Alliance (CADDRA) – [www.caddra.ca](http://www.caddra.ca)

Centre for ADD/ADHD Advocacy, Canada (CADDAC) – [www.caddac.ca](http://www.caddac.ca)

Attention Deficit Disorder Association (ADDA) - [www.add.org](http://www.add.org)

Answers to your questions about ADHD (Patricia O. Quinn, MD and Kathleen Nadeau, PhD) - [www.ADDvance.com](http://www.ADDvance.com)

Online catalogue of ADHD resources – [www.addwarehouse.com](http://www.addwarehouse.com)

Quebec-based Dr Annick Vincent's ADHD website - [www.attentiondeficit-info.com](http://www.attentiondeficit-info.com)

Children and Adults with Attention Deficit Hyperactivity Disorder – [www.chadd.org](http://www.chadd.org)

Connecting doctors, parents and teachers – [www.myadhd.com](http://www.myadhd.com)

Online planner - [www.skoach.com](http://www.skoach.com)

Totally ADD – [www.totallyadd.com](http://www.totallyadd.com)

### **Canadian DVDs on ADHD**

*Portrait of Attention Deficit / Hyperactivity Disorder* Dr. Annick Vincent and the educational department of ISMQ (2007); Quebec City (418-663-5146)

*ADHD Across The Lifespan*, Timothy S. Bilkey, Ontario; [www.bilkeyadhdclinic.com](http://www.bilkeyadhdclinic.com)

*Various DVDs for patients, parents and educators* CADDAC, Toronto: [www.caddac.ca](http://www.caddac.ca)

## Books

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- Kutscher, M. L. ( 2003) *ADHD Book: Living Right Now!* White Plains, New York: Neurology Press
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- Nadeau, K. (1998) *Help4ADD@High School*. Silver Spring : Advantage Books
- Nadeau, K.G. (2006) *Survival Guide for College Students with ADHD or LD*. New York: Magination Press
- Pera G. (2008) *Is it You, Me, or Adult ADD? Stopping the Roller Coaster When Your Partner has -- Surprise! -- Attention Deficit Disorder*, San Francisco, 1201 Alarm Press.
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- Pinsky, S. C. (2006) *Organizing Solutions for People with Attention Deficit Disorder-Tips and Tools to Help you Take Charge of Your Life and Get Organized*, Glouchester, Fair Winds Press.
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