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## Information on Treating ADHD

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Ministry of  
Children and Family  
Development



BC Mental Health &  
Addiction Services

An agency of the Provincial Health Services Authority

*Developed by the health care professionals  
of Child & Adolescent Mental Health  
Programs and reviewed by the Department  
of Learning and Development.*

## **ADHD: Being Informed**

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common disorders affecting children, adolescents and adults. Those diagnosed with ADHD typically have one or more of the following: *poor attention, hyperactivity, and impulsivity*. They experience these symptoms to a greater extent than what would be expected for someone a similar age and developmental stage. About 4 – 12% of children and 4% of adults have ADHD.

If you or your child has been diagnosed with ADHD, it is important to get a good general understanding of the symptoms and the treatment options. Understanding the condition will help in making informed decisions to successfully manage and overcome the disorder. This handout summarizes some of what we know about ADHD and its treatment. There are many opinions about ADHD. This handout is based on what has been demonstrated by scientific standards of research regarding the symptoms of ADHD and their treatment.

This handout, however, is not intended to tell you what treatment strategy or medication is the “best”. The best treatment for you will depend on your situation, experiences, values and wishes. Depending on the situation, you should talk with your child, your family, and your health care providers to get all of the information possible to make the best treatment decision.

The information in this handout is intended to go with the advice given to you by your doctor, psychologist, nurse and/or pharmacist. Though this handout is filled with important facts for your consideration, there may be some information not provided here that would be of interest to you. Please contact one of your health care providers to discuss any of the issues raised (or not raised) here.

## **Background information on ADHD**

ADHD symptoms begin in childhood and may persist into adulthood. While some children “outgrow” the symptoms of ADHD, up to 65% of people continue to have difficulty caused by continued symptoms as an adult. ADHD affects more boys than girls, but by adulthood the number of males and females is about equal. Boys tend to be more disruptive than girls. About one quarter of patients in the clinic have problems with attention and do not have significant problems with being hyperactive and/or impulsive.

Everyone wants to know what causes ADHD. ADHD tends to occur more commonly in those with a family member affected. In fact, a child of an adult with ADHD has about a 50% chance of having ADHD. You might have heard people say that certain parenting or life circumstances cause ADHD. Though changes in these factors can make ADHD symptoms better or worse, they do not “cause” this complex disorder.

Did you know?...ADHD is one of the best researched disorders in pediatrics and psychiatry.

## Complications of ADHD

ADHD is not a benign condition. There are consequences that can occur if the symptoms of ADHD are not appropriately identified and treated. These include:

- poor academic and work performance
- early school drop-out
- symptoms of depression or an anxiety disorder
- substance abuse
- poor social relationships

However, the good news is that when ADHD is appropriately treated, these complications are often avoided and many individuals can enjoy fulfilling and productive lives. Patients with ADHD are often strong, willing and entrepreneurial which helps them deal with some of their difficulties.

## What are the Main Symptoms of ADHD?

The symptoms of ADHD are divided into 2 categories: attention and hyperactive/impulsive symptoms. These symptoms can be evaluated by “rating scales” completed by the patient or someone who knows them well. Ratings of not at all (0) or sometimes (1) are normal. When the difficulty is pretty much (2) or very much (3) it is a problem. Research has shown that when 6 or more of the symptoms of either inattention or hyperactivity/impulsivity or both are rated 2 or 3 (the last two columns), ADHD may be a problem. The scale also has 8 symptoms that describe problems with being stubborn or oppositional defiant disorder (ODD). These items are included because about 40% of patients with ADHD have difficulty in this area as well. A sample checklist that describes ADHD and its symptoms is included at the end of this handout. This is a way for you to understand what ADHD symptoms are and to monitor if they get better. When ADHD is treated we hope the symptoms will move from being rated with checkmarks in the last two columns to checkmarks that are mostly in the first two columns.

## Evaluating and Diagnosing ADHD

Everyone has some symptoms of ADHD. Diagnosis of the disorder distinguishes normal levels of inattention or hyperactivity from ADHD. This evaluation includes feedback from the patient and others. As part of this evaluation, health professionals identify how many symptoms are present, when the symptoms started and how disabling they are. This is a clinical diagnosis. There is no one “test” for ADHD. An expert clinician in ADHD looks at the history, the symptoms, rating scales, development, behavior in the office, the areas that cause difficulty, the results of any special testing, and reports from different people. Sometimes all these sources of information are consistent and the diagnosis is very clear. Sometimes the diagnosis is less clear. The doctor will help you understand what parts of the assessment suggest or do not suggest problems with ADHD. Up to three quarters of patients with ADHD will also have another problem. The doctor will help you understand if you have another difficulty instead of ADHD, or another problem in addition to ADHD.

**TIP:** It is useful to also complete these rating scales a month (or two) after starting treatment to see how the treatment may have affected the symptoms of ADHD.



## Treating ADHD

The treatment of ADHD often requires combining several options together. This is sometimes called a “multimodal” approach. The management of ADHD should be tailored to the specific needs of each patient and their situation. Treatment options usually consist of:

- **Education about the diagnosis and treatment of ADHD** (*hence this handout*)
- **Good communication between the school (or work), home and the treatment team**
- **Behavioural management strategies & psychological interventions**
- **Medications**

## Behavioural Management Strategies & Psychological interventions

Behavioural interventions are a major part of the treatment of ADHD. They help provide structure and make clear expectations for all those affected by ADHD. They also help develop appropriate social interactions and improve self esteem. For mild ADHD, this may be all that is required. Some of the important and helpful strategies include:

- Reward good behavior; natural consequences for negative behaviors
- Consistency, structure, routine
- Teaching problem-solving techniques

Success in school and work may benefit by changing the environment to be more ADHD friendly. This may include coping strategies or accommodations such as reminders, use of the computer, a schedule, decreased course load, a spare block in high school, extra time on tests, an environment that facilitates concentration.

## Treating ADHD with Medications:

Similar to using behavioural strategies, medications are an important part of the management of ADHD. The ideal medication would work right away in everyone, cure all the symptoms of ADHD and have no side effects – except making everyone feel great! Unfortunately, there is no such “ideal” medication.

The standard medications currently used do not cure ADHD. The ultimate goal with medication is to improve functioning by reducing the core symptoms of ADHD (inattention, hyperactivity and impulsivity). Medications work relatively quickly but have several side effects and risks. The various medications used to treat ADHD include:

- Stimulant Medications
- Nonstimulant Medications
  - Atomoxetine (Strattera®)
  - Modafinil (Alertec®, Provigil®)

Sometimes antidepressants are used to help with ADHD. Sometimes problems with anger, explosiveness, poor sleep and appetite and severe disruptiveness are treated with low doses of drugs like risperidone.

Some of these medications are better researched than others. The benefits and risks to each of these medications are the main considerations when deciding which medication(s) is/are most appropriate for your child.

## Stimulants

Stimulants are the best researched and the most commonly used medications for the treatment ADHD. Generally, there are two different stimulants that can be prescribed. **Methylphenidate** (more commonly known as “Ritalin”) and an amphetamines, such as **dextroamphetamine** (also called “Dexedrine”) and **mixed amphetamine salts**. In Canada, these stimulants are available in short and long-acting preparations (see table below).

Main Ingredient	Short and Intermediate-Acting:	Long-Acting
Methylphenidate	Ritalin <sup>®</sup> ; Ritalin SR <sup>®</sup> ; generic formulations	Concerta <sup>®</sup> , Biphentin <sup>®</sup> .
Dextroamphetamine	Dexedrine <sup>®</sup>	Dexedrine Spansule <sup>®</sup>
Mixed Amphetamine Salts		Adderall XR <sup>®</sup>

Did you know?...Though some patients may respond better to one or the other stimulant, both methylphenidate and dextroamphetamine are considered to have similar benefits and side effects.

The short-term effects of stimulants are well known in children six years of age and older. In general, **about two thirds of patients show improvement in ADHD symptoms when taking a stimulant.** For some, the benefits are very clear and life changing. While for others, the benefits are more modest. Each patient needs to see if the benefits from medication outweigh the side effects and inconvenience.

## What are the benefits associated with stimulants?



Benefits that you could expect to see from stimulants include:

- a noticeable improvement in attention span
- impulse control
- decreased hyperactivity.

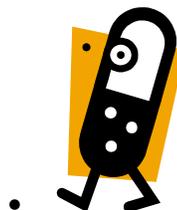
Some of these benefits are noticeable in the first couple days of starting stimulants. There may also be improvements in frustration tolerance as well as social and peer relationships.

Ultimately, it is expected that your child’s overall functioning will improve substantially. For those children who do not see substantial improvements with reasonable doses of the first stimulant tried, up to 30% will respond to another stimulant. Pre-school children (under the age of six years old), however, have a lower probability of significantly improving and a higher incidence of side effects.

## If I agree that we should try a stimulant, how we decide which one to use?

Since all the stimulants, on average, work equally well, the choice of which stimulant to use often depends on many factors that will depend on your lifestyle and preference. These factors include:

- desired duration of action (4 – 12 hours)
- previous medications tried
- cost
- personal preference
- family history
- time course of greatest effectiveness
- potential for side effects



## Methylphenidate

**Ritalin<sup>®</sup>**, **Ritalin SR<sup>®</sup>**, (sustained release), **Biphentin<sup>®</sup>** and **Concerta<sup>®</sup>** are all brand names for various methylphenidate medications. In addition, there are several short-acting generic formulations available (like PMS-methylphenidate and Ratio-methylphenidate). Generic methylphenidate formulations cost less than brand name products but may need to be dosed differently in some patients.

While all these formulations contain methylphenidate as the active ingredient, there are differences in how long these medications will have an effect on symptoms over the course of the day. Ritalin lasts about 3.5 hours, Ritalin SR 6 hours, and Concerta and Biphentin last about 10 – 12 hours. Concerta releases more of the medication in the afternoon and Biphentin releases about equal amounts over the course of the day. Ritalin SR comes in 20 mg tablets. Concerta comes in four strengths: 18, 27, 36, and 54 mgs. Biphentin comes in strengths of 10, 15, 20, 30, 40, 50 and 60 mgs. Biphentin can be sprinkled and taken with food for children who cannot swallow pills or who need very fine or very low dosing. For all these medications the doctor will start with a low dose and increase the medication slowly finding the dose that provides the most benefit on symptoms with the least side effects. An average dose is 1 mg/kg but some patients need less and some need more.

Even though all these medications contain methylphenidate they have some important differences and some children will do better on one than on another. Children also may respond to these medications better as they approach the age of nine. If your child does not respond at a younger age, it does not mean that he/she will not respond to later on.

## Amphetamines

### **Dextroamphetamine**

Dextroamphetamine is sold in Canada under the brand name of **Dexedrine<sup>®</sup>** and **Dexedrine Spansule<sup>®</sup>**. There are no generic preparations available. Dexedrine<sup>®</sup> is a short-acting preparation (works for about 5 hours) that is available as 5 mg triangular shaped tablets. Dexedrine Spansules are a longer-acting formulation (works for about 8 hours) available in 10 mg and 15 mg capsules, Dexedrine Spansules lasts longer than Ritalin SR, but not as long as Concerta<sup>®</sup> and Adderall XR<sup>®</sup>.

The dose of dextroamphetamine is about half that of methylphenidate.

### **Mixed Amphetamine Salts: (Adderall XR<sup>®</sup>)**

Adderall XR<sup>®</sup> contains short- and long-acting beads which allow the medication to keep working for 10-12 hours. This preparation allows for once-daily dosing. Its side effects are generally similar to other long-acting stimulants.



## **Differences between Short- and Long-Acting Stimulants**

Since short-acting methylphenidate preparations are helpful for up to 4 hours, they are usually taken at least twice daily. These medications are like glasses: they only work while you wear them. This means some children take the medication in the morning and at lunch for school and others take another dose after school to help with homework and activities.

Ritalin SR<sup>®</sup> is effective for about 6 hours, while others (like Dexedrine Spansule<sup>®</sup>) are effective for about 8 hours. The newer preparations, such as Biphentin<sup>®</sup>, Concerta<sup>®</sup> and Adderall XR<sup>®</sup>, can mostly be used once a day as they are effective for about 10-12 hours.

The benefits of the longer-acting medications include not needing to take a dose at school, potentially fewer “wearing off side effects” (see the side effect section below), fewer missed doses, and less risk of abuse (overuse of the medication).

Some long-acting brand name preparations (like Concerta<sup>®</sup> and Adderall XR<sup>®</sup>) can be expensive and are not covered by pharmacare but are covered by most insurance plans. A table with the prices of all the medications and more information about the medications is available at Canadian ADHD Resource Alliance website at [www.caddra.ca](http://www.caddra.ca).

## **How does my doctor know what dose to use?**

There is no guaranteed way of knowing the most beneficial and best tolerated (how well the medicine is working and how your child is doing with side effects of the medicine) dose for any child. Some children are very sensitive to the effects of stimulants at low doses while others require higher doses to see an effect. Therefore, most doctors usually start at a low dose and increase it slowly over time. The specific dose and timing of the stimulant must be determined for each child based on their needs.

**Tip:** The best dose is the one that provides a significant benefit to for child with the least amount of side effects.

The timing of the dosing is also important. Those with ADHD should have sufficient levels of the medication in their system during key subjects in school (like math), during the times of day when they have most difficulty and during transition periods (like recess or driving home). In order to do this it may be necessary to change:

- the timing or frequency of medication administration (when the dose is given)
- the dose of medication
- to a longer-acting formulation

For example, if a child is receiving tutoring it is helpful for them to be on medication during these sessions. If an adolescent is getting into trouble after school with impulsive behaviours, it would be useful to take the stimulant later in the day. If an adult has trouble paying the bills or helping their child with homework in the evening they need to be on medication at that time.

If you or your child is starting a stimulant, it should be taken everyday (7 days a week). This lets helps the body get used to the medication, and helps determine if and when the medication is working in different settings and as observed by different people.

## **Side Effects and ‘Potential Risks’ Associated with Stimulants:**

As with most medications, there are side effects and risks associated with taking stimulants. The majority of side effects are manageable and almost always decrease over time. Using lower doses initially helps

lower the number and severity of side effects. However, it is possible for children to have a side effect that they feel is serious or long lasting. If this occurs, please inform your doctor and ask about appropriate management of these side effects.

Some stimulant side effects occur when the medication is at its peak in the body (e.g., loss of appetite and a headache), while others (e.g., emotional changes, aggression) may occur when the effects of the stimulant are “wearing off” [sometimes called “stimulant rebound”]. Therefore, it is important to record the timing of when the side effect happened.

**Did you know?...Two of the most common side effects from stimulants are reduced appetite and difficulty falling asleep.**

**Tip:** Some items listed as “side effects” can occur in those not taking stimulants. Therefore, before starting any stimulant, check to see if your child already has any of these “side effects”. Often the difficulties that children have before starting medication (i.e. headaches, not eating, trouble sleeping) are most prone to getting worse while on medication.

**Tip:** Some side effects are emotional. Some patients may feel “zombied”, nervous, irritable, angry or slightly depressed on medication. If this happens to you make sure to talk with your doctor about whether this is a side effect or another problem.

**Common stimulant side effects** (e.g., those that occur in more than 5% of individuals) include:

- loss of appetite
- difficulty sleeping (insomnia)
- energized feelings
- nervousness
- dry mouth
- stomach aches
- nausea
- headaches
- irritability
- increase in heart rate
- drowsiness and a withdrawn (or “zombie-like” state)

It is important to discuss these with your child’s doctor at your next appointment as there are several strategies that can be used to decrease these side effects. For example, if someone has lost their appetite because of stimulants, they could try eating larger meals closer to bedtime or in the morning before they take their medication. They may also eat smaller meals throughout the day or try higher caloric diets.

**Uncommon side effects** (e.g., those that occur in less than 5% of patients) include:

- emergence/worsening of vocal or motor tics (such as shrugging, blinking, head turning, muscle twitches)
- growth delay
- persistent head throbbing
- skin rash
- psychiatric effects (agitation, hallucinations)

Recently there has been a change in the information put out by the government advising parents and doctors that stimulants may increase the risk for heart problems in children who have a heart defect or who undergo extreme exercise. If the patient has any of these risk factors, please tell the doctor:

- family history of early heart disease
- problems with fainting, dizziness, chest pain or irregular heart beat
- increased blood pressure
- extreme exercise demands

It is important to consider the impact of adding a stimulant in those with a history of tics or Tourette's syndrome. Up to half of the children with Tourette's syndrome may also have symptoms of ADHD; sometimes the ADHD is identified first. For those with a history of tics who are diagnosed with ADHD, treatment for ADHD may still be important and helpful, and tics do not always get worse and with some medications may improve.

### **Who should avoid taking stimulants?**

On **May 26, 2006 and September 21, 2006**, Health Canada issued a warning to the public and health professionals informing them of concerns regarding the risk for rare, though significant, heart related complications and even death associated with the use of various stimulants and atomoxetine and rare cases of psychiatric adverse effects such as agitation and hallucinations.

These warnings suggested that stimulants and atomoxetine should be avoided in anyone (children or adults) with a history of significant heart related problems such as high blood pressure, heart disease or abnormalities (like an irregular or rapid heart beat, angina or "cardiomyopathy"), hardening of the arteries or in those with overactive thyroid glands.

The research so far on growth suggests that children on these medications may grow more slowly for a few years, but do not end up much shorter than they otherwise would have been. However, if your child has a problem with growth or is very small, this may be a significant concern.

Stimulants should also be avoided in those with a history of psychosis. If your child is taking other medications (including over the counter medications, asthma medications, cold medications and herbal products), be sure to tell you doctor and/or pharmacist as some medications can interact with stimulants.



Patients with a history of other serious problems such as conduct disorder, mood disorders, Asperger's, autism, anxiety disorders may benefit from stimulant treatment but the outcome will still also be affected by the other problems.

Stimulants should not be sold, given to someone else. They should be taken exactly as prescribed. If you use street drugs – tell your doctor so you both can discuss if stimulants will be a safe choice for you.

### **If my child uses a stimulant, will they become addicted to it or be more likely to abuse other street drugs?**

Stimulants are not addictive. In fact, patients often want to try to discontinue them at some point in time to see if they are still needed. Interestingly, those with ADHD are at a greater risk than the general population for abusing drugs. By treating the ADHD adequately, they are actually less likely to end up abusing drugs than those with ADHD who are untreated. In other words, it appears that stimulants protect children from becoming a "drug abuser" later in life. However, this does not mean that if you have a problem with drug use or misuse now that treatment of the ADHD will fix the problem with substance

dependence.

## **Is there a way to confirm if the stimulant is helping or if a side effect is due to the stimulant?**

It is usually pretty clear whether or not a stimulant is working. If not there are some easy ways to find out. You can ask your child's teachers or someone at work if he/she is better, worse or the same. If you do not tell your child's teachers or your spouse when you are/are not taking medication then they can give you an objective opinion. Pharmacists can also prepare medication and placebo medication and parents can compare a month "on" to a month "off" without knowing which month the child actually had medication. The best measure of improvement is how the patient feels, whether they function better, and whether others can see the change in symptoms.



## **How do the benefits of stimulants compare with using behavioural therapies alone?**

There has been some good research comparing stimulant therapy to behaviour strategies as well as the combination of the two in children. One research study (Multimodal Treatment of ADHD or MTA) found that children treated with stimulants (in a carefully managed way) as well as those who received both stimulants and behavioral treatment together had the best outcomes with respect to improvement of ADHD symptoms. There was no difference between medication alone and medication plus behavioral treatment overall for most children. Children who received stimulants with or without behaviour management did better than children who did not receive stimulants. Children who had ADHD and problems with anxiety and oppositional symptoms did benefit more from medication plus psychological treatment as opposed to taking medication without additional psychological treatment.

## **Atomoxetine (Strattera®)**

Atomoxetine, known by its brand name Strattera®, is a relatively new medication shown to be helpful for treating ADHD. It is the first (and only) "nonstimulant" to be approved by Health Canada for use in children (over 6 years old), adolescents and adults who have ADHD. It requires a doctor's prescription, but it is not considered a controlled substance (like stimulants) and is not a drug that is "abused".

Reports suggest that the beneficial effects of this medication are often not seen until the patient has been taking atomoxetine regularly for 1 to 2 months. This medication can usually be taken just once a day (in the morning), so there is no need for taking it at school.

## **Compared to stimulants, how well does atomoxetine work and what are its side effects?**

Atomoxetine works about as well as stimulants. Patients who do not respond to stimulants may respond to atomoxetine and vice versa.

The most common side effects include:

- drowsiness (which can help with insomnia)
- dizziness
- headaches
- decreased appetite
- stomach upset
- fast heart rate
- potential for irritability.

Atomoxetine has been shown to be effective for tics and anxiety. The best way to deal with drowsiness is to take the medication after supper. The best way to deal with stomach ache and nausea is to be sure to

take the medication on a full stomach. It also helps to give the child some time before driving so that nausea is not made worse by car sickness. Adults may have other side effects such as erectile dysfunction, trouble sleeping, or increase in blood pressure and pulse.

### **How does my doctor know what dose to use?**

The dose most doctors start with depends on the weight of the person with ADHD. Your doctor will likely try to give a small dose (about 0.5mg per kg per day) for the first week. For example, a child that weighs about 40 kg (about 88 lbs) would get an 18 mg capsule a day. To prevent some stomach upset side effects, most children get this dose for about 7-10 days. Then, if they are tolerating it, the doctor will increase the dose again. After another 7-10 days the doctor may increase the dose yet again (to about 1 mg per kg per day) unless there are side effects. Most people will see a benefit at these doses. So, back to our example, the child weighing 40 kg would likely get a 40 mg capsule/day.

If your child is prescribed atomoxetine, he/she needs to use this medication every day. Your child should not skip doses on the weekend or on holidays. It is available in several capsule sizes (10mg, 18mg, 25mg, 40mg, and 60mg). This medication needs to be swallowed whole, it should not be chewed. Different patients respond to different doses. However, the usual guidelines for children and adults are:

0.5 mg/kg x 10 days; 0.8 mg/kg x 10 days; then 1.0 -1.2 mg/kg thereafter. It takes a month to usually get to the right dose and another month to observe the effect. The side effects such as decreased appetite are usually evident right away. The maximum dose is 100 mg/day.

### **Are there any serious side effects associated with atomoxetine?**

Atomoxetine has recently been associated with one case of liver inflammation out of the 4 million patients who have taken the drug. If you see signs of liver disease (yellowish skin, yellow eyes, significant rash/itchiness, dark colored urine, pain in the upper right part of the abdomen) then stop the medicine and call your doctor.

Also, in research trials looking at children between the ages of 7-12 years old who received atomoxetine, a small percentage of children (about 1 in 200 cases) experienced thoughts of harming themselves. **It is important to report any changes in irritability, mood or thoughts of self harm to your doctor.**

### **General Considerations for Using Medications for ADHD**

- Most medications used to manage ADHD symptoms increase heart rate and pulse. There have been 25 deaths of patients treated with medication for ADHD, but this is not more than would be expected in the population who did not take medications. We therefore do not know if stimulant medication contributed to the death of these patients or not and the majority of them had other risk factors.
- Medications should be stored in a place where young children cannot get at them.
- Any changes in mood or thoughts of self harm should be reported to your doctor.
- Do not chew, crush or open Strattera<sup>®</sup> or Concerta<sup>®</sup>. Biphentin<sup>®</sup> and Adderall XR<sup>®</sup> are the drugs of choice in someone who cannot swallow pills because they can both be sprinkled.
- Several medications can interact with those used to treat ADHD. Before your child begins taking any other new medication (prescription or non-prescription), check with your doctor or pharmacist.
- If the patient becomes pregnant, stop the medication and call the doctor.

## **If I choose to start a medication for ADHD, how long might I have to take it?**

If your child is doing well on medication, the doctor may stop it in the summer to see if it is still needed and if it is helping or causing side effects. Whether or not your child needs medication should be re-evaluated each year. Some people continue to benefit from medication for many years. Some people only require it during particular times of their life such as when they are in school. The decision to try medication is relatively risk free. You do not need to fear that if you try medication, this means they you are committing to it forever. Most adults with ADHD figure out after a while exactly what medication can and cannot help them with and when they do or do not need it.

### **Other medications:**

Patients with ADHD may have other problems as well, in which case it is possible that the doctor will suggest a trial of some other medications. Below is a brief list of some difficulties commonly seen in those who have ADHD and the medications that may be used to help.

**Sleep:** Melatonin 3 mg given a half hour before bedtime can help many children and adults fall asleep more easily with minimal side effects

**Anger, rages, and severe disruptive behaviour:** There are studies of risperidone (Risperdal<sup>®</sup>), an atypical antipsychotic (see handout on risperidone) in children with developmental delay, autism or severe disruptive behaviours. These studies have shown that low doses of risperidone (0.25 mg – 2 mg/day) may help with anger management and other troublesome behaviours. on average, these children maintained their improvements without worsening of side effects for the two year study period.

Side effects of low dose risperidone may include: increased appetite, weight gain, drowsiness, and muscled stiffness. No serious side effects have emerged in this population. If you are at risk for diabetes then risperidone may increase that risk. Patients who have severe problems with appetite, sleep, anger, anxiety and mood sometimes find that low doses of risperidone helps with these problems. There are other drugs that have not been as well researched as risperidone but are felt to have similar effects. These include quetiapine (Seroquel<sup>®</sup>) and olanzapine (Zyprexa<sup>®</sup>).

## Where can I get more information?

1.	<a href="http://ADHD.com">ADHD.com</a> Reviews ADHD treatment options including behavior modification techniques and medications.
2.	<a href="http://www.aacap.org">www.aacap.org</a> American Academy of Child and Adolescent Psychiatry lists lots of information for health professionals to patients.
3.	<a href="http://www.newideas.net/attention_deficit/index.html">http://www.newideas.net/attention_deficit/index.html</a> ADHD Information Library lists various treatment options for ADHD including medications, counseling options, biofeedback, and dietary therapies.
4.	<a href="http://www.edutechsbs.com/adhd/">http://www.edutechsbs.com/adhd/</a> ADHD Owner's Manual provides lists a variety of resources to help understand medication and treatment alternatives, educational theories, and information about the disorder.
5.	<a href="http://www.add.org/articles/index.html#treatment">http://www.add.org/articles/index.html#treatment</a> Attention Deficit Disorder Association archives articles and studies on treatment options available for ADD -- including medical therapies, neurofeedback, and diet modification.
6.	<a href="http://www.CADDRA.ca">http://www.CADDRA.ca</a> The Canadian ADHD Resource Alliance is a national independent association that advocates for the interests of those suffering from ADHD. Lots of useful resources and Canadian practice guidelines.
7.	<a href="http://www.chadd.org/">http://www.chadd.org/</a> Several resources to help those suffering from ADHD assess the safety and efficacy of different "interventions".
8.	<a href="http://www.pbs.org/wgbh/pages/frontline/shows/medicating/">http://www.pbs.org/wgbh/pages/frontline/shows/medicating/</a> Medicating Kids is a PBS special report on how to make sense of the diagnosis of ADHD -- with five video chapters available for online viewing.
9.	<a href="http://www.nimh.nih.gov/publicat/adhd.cfm">http://www.nimh.nih.gov/publicat/adhd.cfm</a> National Institute of Mental Health offers an online booklet describing the symptoms, causes, and treatments of ADHD.
10.	<a href="http://www.help4adhd.org/en/treatment/guides">http://www.help4adhd.org/en/treatment/guides</a> National Resource Center on ADHD publishes treatment guidelines to provide parents and medical professionals with a road map for dealing with ADD/ADHD.
11.	<a href="http://www.cmeonADHD.com">www.cmeonADHD.com</a> Reviews recent information on ADHD and lectures in Canada.
12.	<a href="#">Prefer a video on ADHD?</a> Call ODIN Books (1-604-739-8804) or The ADD WareHouse (1-954-792-8944 Florida, USA). They provide a wide range of resource material including books, workbooks, materials for children, and videos. The National Film Board has an excellent video was called "Struggle for Control" that you can order from this website: <a href="http://www.nfb.ca">www.nfb.ca</a>

### Recommended books:

*Taking Charge of ADHD* by Russell Barkley, Guilford Press

*Scattered Minds, Hope and Help for Adults with ADHD* by Lenard Adler

**Weiss Symptom Screener**

Name of Patient	Age	Gender
School/Occupation	Date	Name of the person completing this form

The following is a list of different kind of problems. Everyone has some of these difficulties. Please tell us if and how much of a problem these things are for you or the person you are describing. You are comparing with people of the same age. Not all of these problems are going to be relevant for different ages. If this problem is not applicable tick "Not at all."

		Not at all	A little	Pretty Much	Very Much
<i>IA</i>	<b>Attention to details</b>				
<i>6/9</i>	<b>Careless mistakes</b>				
	<b>Staying focused</b>				
	<b>Trouble listening</b>				
	<b>Not finishing things</b>				
	<b>Disorganized</b>				
	<b>Losing things</b>				
	<b>Distractible</b>				
	<b>Forgetful</b>				
<i>HI</i>	<b>Fidgets</b>				
<i>6/9</i>	<b>Restless</b>				
	<b>Hyperactive</b>				
	<b>Trouble relaxing quietly</b>				
	<b>Always on the go</b>				
	<b>Talks too much</b>				
	<b>Fidgets</b>				
	<b>Talks out of turn</b>				
	<b>Cannot wait</b>				
	<b>Interrupting</b>				
<i>ODD</i>	<b>Loses temper</b>				
<i>4/8</i>	<b>Argues</b>				
	<b>Defiant</b>				
	<b>Annoys people</b>				
	<b>Blames others</b>				
	<b>Touchy</b>				
	<b>Angry</b>				
	<b>Mean</b>				