

Using *Risperidone* in Children and Adolescents with Disruptive Behaviour Disorders



Overview

Risperidone (Risperdal® and generic forms) belongs to a group of medications called “atypical antipsychotics” or “second-generation antipsychotics”.

What is *risperidone* used for?

Like many medications used to treat childhood disorders, risperidone has not been approved by Health Canada for use in children and adolescents. Risperidone was originally developed as an antipsychotic medication, used to treat psychotic illnesses such as schizophrenia. In recent years, research has shown that low doses of this medication (approximately 0.5 to 2 mg per day) can help treat children with severe mood dysregulation, aggression, or irritability associated with autism spectrum disorders. When the potential benefits (e.g., reducing your symptoms) of using risperidone outweigh the potential risks (e.g., the side effects), many doctors may prescribe it “off-label” to these problems. Talk with your doctor about why this medication is being prescribed.



How does *risperidone* work?

Like other atypical antipsychotics, risperidone affects the levels of certain chemicals in the brain called dopamine and serotonin. The exact way that antipsychotics improve the symptoms of disruptive behavior disorders is not fully known.

How well does *risperidone* work in children and adolescents?

Currently there is good evidence that the use of risperidone can be helpful in treating children and adolescents with childhood disorders such as disruptive behavior disorders (i.e. AD/HD and conduct disorders), autism spectrum disorders, aggressive behaviors, irritability and several others. Risperidone is approved for the treatment of irritability associated with autism spectrum disorders in children and adolescents in the United States.

In one 8-week trial, behavior improvements (i.e. irritability, hyperactivity) were seen in children with autism given risperidone compared to an inactive pill that looks like the medication (a placebo). Another study showed that risperidone used together with certain stimulants may help treat resistant aggressive behaviors in children with AD/HD. Studies have also shown that in some individuals, risperidone can help to prevent symptoms of disruptive behavior disorders from re-occurring when compared to placebo.

How should *risperidone* be taken?

The doses which are used to help children with these conditions are much lower than the doses that are used to treat schizophrenia and bipolar disorder in adults, and because of this the side effects may be different to what you may read in the leaflet that comes from the pharmacy.

Risperidone is available in several forms such as liquid, and tablets (regular or tablets that dissolve in your mouth (called 'Risperdal M-Tab[®]')).

The tablets and liquid are usually taken once or twice a day with or without food. Risperidone should be taken at the same time each day as directed by your doctor. Try to connect taking it with something you do each day (like eating breakfast or brushing your teeth) so that you don't forget. Try to avoid alcohol while taking risperidone.

If you are taking the liquid form of risperidone, you can mix it with water, orange juice, coffee or low-fat milk. Do not take the liquid with tea or cola beverages.

If you are taking the dissolving tablets (*M-Tab[®]*), follow these directions. Since this medication will be prescribed in a "blister pack" (not a bottle), you have to be careful about taking the medication out of the blister.

1. Use dry hands to peel off the foil from the back of the blister before removing the tablet (wet hands can cause the medication to melt in your hands). Do not push the thin wafer through the foil.
2. Place the tablet on your tongue. The tablet will dissolve quickly and may be swallowed with or without water. Try not to chew the tablet.

Usually, your doctor will start with a low dose of risperidone and may gradually increase this dose over several days or weeks based on how you respond to it. You and your doctor can then discuss the best dosage to stay on based on how the medication is tolerated (how well it helps decrease symptoms and how troublesome are the side effects).



When will *risperidone* start working?

It may take one week before the benefits of risperidone become noticeable. When risperidone is working well, the person taking risperidone and/or his/her family members may notice that he or she is less irritable, less explosive or less angry. While occasionally used on an as needed basis, risperidone is usually prescribed to be taken regularly, to reduce how often disruptive behaviours occur, and the severity of behaviours that do occur. Medications like risperidone do not work for everyone. Talk with your doctor if you find the medication has not been helpful.

How long do I have to take *risperidone*?

This depends on the symptoms you have, how frequently they occur and how long you have had them. Your doctor will discuss the benefits and risks of taking risperidone with you. At this time, you can also discuss how long you might need to take this medication. Risperidone can be stopped abruptly without a problem if you experience side effects that are uncomfortable and are unable to reach your doctor. However, if you are also taking a stimulant medication, you should not abruptly stop stimulant medication and continue taking risperidone or you may get uncomfortable symptoms such as muscle rigidity, eye rolling, and restlessness (this group of side effects are called "extrapyramidal side effects" (EPS)). If these effects happen, remember this side effect will disappear within 30 minutes after taking diphenhydramine 25 mg (Benadryl[®]). You may wish to obtain and keep a small amount of diphenhydramine at home. If EPS occurs, you should contact your doctor as soon as possible.

Is *risperidone* addictive?

No, risperidone is not addictive and you will not have "cravings" for this medication like you might with nicotine or street drugs. If you and your doctor decide it is best to stop using risperidone, your doctor will explain how to safely come off this medication so you don't feel negative effects as your body adjusts to being without it.

What are the side effects of *risperidone* and what should I do if I get them?

Common side effects

Side effects are usually more common when starting a medication or after a dose increase. If any of these side effects is troublesome for you, please discuss them with your doctor, nurse or pharmacist.

- Dizziness (*try getting up slowly from a sitting or lying down position*)
- Drowsiness (*try taking the dose at bedtime*)
- Fast and irregular heart beat (*this effect may be temporary and go away over time*)
- Headache (*try using a pain reliever like acetaminophen (plain Tylenol®)*)
- Increase in appetite and weight gain (*If this is troublesome, avoid high calorie foods & increase your exercise*)
- Stomach ache (*try taking the medication with food*)

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



Contact your doctor IMMEDIATELY if you have any of these side effects:

- Muscle spasms or stiff muscles (*usually relieved by diphenhydramine (Benadryl®) 25mg; call your doctor*)
- Agitation and feelings of restlessness (*avoid caffeine from energy drinks, colas, coffee and some teas*)
- Difficulty swallowing
- Breast tenderness or breast discharge
- Unexplained fever or confusion (*This may be a warning sign of a rare, serious side effect*)

Risperidone and drugs like it have been associated with an increased risk for metabolic syndrome (which includes several medical disorders), diabetes, or increased lipids (such as cholesterol and triglycerides), as well as an increased level of prolactin (a hormone). These effects may be less likely in children with normal blood pressure, who are thin to normal weight, and who have normal blood work and are at low risk for developing diabetes. High levels of prolactin (a hormone) have also been found in children and adults taking risperidone for various conditions. Although a risk exists, these effects may occur at lower rates with risperidone when used at low doses in children and adolescents with disruptive behavior disorders, than seen with other psychiatric conditions. In children with problems falling asleep, the side effect of increased drowsiness at night may be helpful.

Another possible delayed/long-term side effect of risperidone is called *tardive dyskinesia*, which is a disorder characterized by abnormal movements. Tardive dyskinesia may occur in adults with schizophrenia who take with higher doses over long periods of time. For children with AD/HD who take low doses of risperidone, in one study, the incidence of tardive dyskinesia after one year of continuous use was 2 cases out of 737. In both of these cases, tardive dyskinesia disappeared when the medication was stopped. The risk of tardive dyskinesia in children taking relatively higher doses of risperidone than are typically prescribed for disruptive behaviour disorders was 1 in approximately 370 persons (0.27%) per year of risperidone usage.

What precautions should my doctor and I be aware of when taking risperidone?

Tell your doctor or pharmacist if you:

- Have any allergies or have experienced a reaction to a medication.
- Are taking, or plan to start taking any other prescription or non-prescription medications (including herbal products). Many medications can interact with risperidone, such as carbamazepine (Tegretol®), heart medications, antidepressants, antibiotics, stomach medications and several others. Your doctor may need to change the doses of your medication(s) or monitor you carefully for side effects if you are taking medications that interact with risperidone.
- Have a history of heart disease, kidney or liver disease, a bowel obstruction, diabetes (or a family history of diabetes) or glaucoma.
- Miss a period, are pregnant (or are planning to become pregnant) or are breast-feeding. Tell your doctor if you become pregnant while taking risperidone.
- Are currently using alcohol or street drugs. Combining risperidone with these substances can decrease how well risperidone works for you and/or make you feel excessively sleepy.



If your child is sleepy during the day and this is interfering with school or activities, notify the doctor so he/she may change the dose or time that it is taken. If your child is old enough to drive, he/she should not drive if risperidone is making him/her sleepy.

What special instructions should I follow while using risperidone?

- Keep all appointments with your doctor and the laboratory. At this time, it is recommended that your doctor order certain lab tests (a blood test which may include checking blood glucose, insulin and prolactin levels, cholesterol and triglyceride levels, and liver tests) before risperidone is prescribed. Your doctor will decide with you how often this testing needs to be repeated (usually once a year at minimum) in order to check how you are responding to risperidone.
- In addition to the laboratory testing above, measurement of height, weight and waist circumference before starting risperidone and at regular intervals is recommended.
- Do not allow anyone else to use your medication.
- If you experience any abnormal movements in your arms, legs, body or face, tell your doctor immediately.

What should I do if I forget to take a dose of risperidone?

If you take risperidone only at bedtime and you forget to take it, skip the missed dose and continue with your regular schedule the next day. **DO NOT** double your next dose. If you take it more than once a day, take the missed dose as soon as possible. However, if it is almost time for your next dose (e.g., within 4 hours), do NOT take the missed dose or double up on your next dose. Instead, continue with your regular dosing schedule.



What storage conditions are needed for risperidone?

- Keep this medication in the original container, stored at room temperature away from moisture and heat (e.g., not in the bathroom or kitchen) and protected from light.
- Store dissolving tablets in the original sealed packaging and use immediately once opened.
- Keep this medication out of reach and sight of children.

You may wish to share this information with your family members to help them to understand your treatment options. Since every person's needs are different, it is important that you follow the advice provided to you by your own doctor, nurse and/or pharmacist and speak to them if you have any questions about this medication.

*Developed by the health care professionals of
Child & Adolescent Mental Health Program and
reviewed by the staff of the Kelty Resource Centre.*