



## What is this medication used for?

Health Canada has approved methylphenidate for use in children and adolescents age 6 years and older. It can help improve mental and behavioural symptoms of attention-deficit/ hyperactivity disorder (ADHD), including difficulties paying attention, impulsive behaviour and hyperactivity.

Sometimes, methylphenidate is also used for other reasons. When potential benefits outweigh risks, methylphenidate may be prescribed "off-label." Learn more about off-label medication use:



<http://bit.ly/KMH-off-label-use>

## Tell your doctor or pharmacist if you:

- Have allergies or bad reactions to a medication
- Take (or plan to take) other prescription or non-prescription medications, including over-the-counter and natural medicines). Some medications interact with methylphenidate. Your doctor may adjust medication doses or monitor for side effects
- Have a history (or family history) of heart disease, heart abnormalities or irregular heartbeat
- Have a history (or family history) of seizures, anxiety, bipolar disorder, thyroid disease or glaucoma
- Miss a menstrual period, are pregnant, breast-feeding or planning a pregnancy
- Use alcohol or drugs. Taking methylphenidate together with certain substances may cause a bad reaction. Learn more at [www.DrugCocktails.ca](http://www.DrugCocktails.ca)



## When will the medication start to work?

You (or your family members) may notice improvements within the first couple of days of starting methylphenidate. However, symptoms of ADHD will only improve when there is enough medication in the body. Once the medication wears off at the end of a dose or at the end of the day, ADHD symptoms can return.

You and your doctor may have to adjust the timing of doses according to your needs. For example, a dose may be timed so that there is enough medication in your body for an important class or activity.



## Possible common or serious side effects:

Side effects may be more common when first starting a medication or after a dose increase. Talk to your doctor, nurse or pharmacist if any side effect concerns you.

- Loss of appetite or weight loss
- Nausea, vomiting, stomach ache or constipation
- Dry mouth
- Trouble sleeping
- Irritation, nervousness or feelings of agitation
- Headaches
- Increased heart rate or an uncomfortable awareness of your heartbeat



**When used properly, this medication is not addictive, and doesn't increase the risk of substance misuse.**

## Contact your doctor immediately if you experience:

- Thoughts of hurting yourself, hostility or suicide
- Unusual changes in mood such as ongoing sadness or seeing, hearing or feeling things that are not there
- Worsening vocal or motor tics such as shrugging, blinking, head turning, muscle twitches or throat clearing
- Skin rash
- Prolonged (more than 4 hours), inappropriate and/or painful erection of the penis



## How do I take this medication?

Biphentin® is a long-acting form of methylphenidate and is available as controlled-release capsules that are taken by mouth. Biphentin® should be taken first thing in the morning. If you wake up late, you may have to skip your dose. Avoid taking Biphentin® later in the day, in the evening or at night unless specifically directed by your doctor as it can cause difficulty sleeping. Usually, you will start with a low dose and slowly increase this dose over several days to weeks, based on how you tolerate it.

Biphentin® capsules should be swallowed whole with fluid. Alternatively, you may sprinkle the entire contents of the capsule(s) on a small amount of soft food (such as applesauce). Swallow immediately without chewing, then drink some fluids to make sure the contents are completely swallowed. The capsules and the beads inside should not be divided, crushed, chewed or placed in water.

# Methylphenidate (Biphentin®)



## What precautions should my doctor and I be aware of when taking this medication?

- Methylphenidate can mask symptoms of extreme tiredness. Do not drive a car or operate heavy machinery when you have not had sufficient rest, even if you feel awake and alert.
- This medication (and medications like it) can cause a rare side effect called “serotonin syndrome,” especially when used in combination with other serotonergic drugs such as MAO inhibitors, triptans used for treatment of migraine and most antidepressants. Symptoms include diarrhea, sweating, increased heart rate, tremors, severe muscle stiffness and increased agitation.
- Methylphenidate can cause a temporary slowing of growth rate in children and adolescents, with an average decrease of 2cm in height and 2.7kg in weight following 3 years of continuous treatment. Some children may experience a more significant impact on growth. While taking methylphenidate, your growth should be monitored regularly.



## How does this medication work?

Like other stimulants, methylphenidate increases levels of the brain chemicals dopamine and to a lesser extent, norepinephrine. These brain chemicals activate areas of the brain that control impulsive actions, attention and body movements, thereby improving symptoms of ADHD. Biphentin® capsules release 40% of the dose right away and the rest of the dose later in the day. Biphentin® usually last up to 10-12 hours.



## How well does the medication work in children and adolescents?

Methylphenidate has been studied and found to improve core symptoms of ADHD (impulsive behaviour, inattention and hyperactivity) in approximately 75% of children and adolescents. It is expected that you may experience functional improvements, including how you handle frustrations and engage in social and peer relationships. If you do not experience a significant improvement with methylphenidate at a younger age, this does not mean that it will not work for you later in life. Whenever possible, the addition of behavioral management strategies (such as rewarding good behaviour and teaching problem-solving techniques) can increase the potential for benefit.



## How long should I take the medication for?

Different people take methylphenidate for different lengths of time. From time to time, your doctor should evaluate whether you need ongoing treatment with this medication. Some people only require methylphenidate treatment during particular times of their life such as when they are in school. Other people benefit from ongoing treatment for many years.

Your doctor may suggest that you take a “drug holiday” from the methylphenidate treatment for holidays or a period of time in the summer to see if you still need this medication, to allow for growth and to reduce the chance of your body adapting to the effects of this medication and getting reduced benefit from it over time.



## What special instructions should I follow while using this medication?

- Keep all appointments with your doctor and the lab.
- Your doctor may order physical exams, or assessments such as ADHD rating scales and reports from your teachers, before or after starting methylphenidate. This is to make sure it is working well for you and monitor for side effects.
- Do not allow anyone else to use your medication.



## What should I do if I forget to take a dose of this medication?

If you forget to take a dose of Biphentin®, take the missed dose as soon as you remember. However, if it is more than 4 hours after your scheduled dose, skip the missed dose and continue with your regular schedule. DO NOT double your next dose to try to ‘catch up’.



## How do I store this medication?

Keep methylphenidate in the original container, stored at room temperature away from moisture and heat and protected from light. Keep methylphenidate out of reach and sight of children.



**TIP:** Review the Kelty Mental Health *Managing Stimulant Medications in Children and Adolescents* to help manage potential side effects of this medication. <https://bit.ly/stimulant-medications>