YOUR GUIDE TO

# Treatments FOR Parkinson's disease

You have been diagnosed with *Parkinson's disease*, a medical condition of the nervous system. Parkinson's is a disease that has been extensively studied, described and defined, but how it is experienced is different for every individual. The way your symptoms progress and the way you respond to treatment will only become clearer as you and your doctor become more familiar with your unique situation.

**Your doctor** may ask you to try different types of treatments to help find the one that will help reduce your motor symptoms, improve your quality of life, while reducing the possibility of side effects. You can be involved in this discovery process by getting informed. Knowing the current treatment options available will help you to make the right decisions with your doctor about your medical care.

This brochure is here to provide some answers to questions you may have about Parkinson's disease. It summarizes the *treatment options* available in Canada and suggests therapies you may come across. This brochure can also serve as a starting point for talking to your doctor, so that you can decide together which treatment is best for you as an individual.

> Educating yourself about Parkinson's disease can empower you and your loved ones to live well with Parkinson's disease

## What is Parkinson's disease?

Parkinson's disease is a disease of the central nervous system that affects the way a person moves their body. Movement is controlled by a chemical in the brain called dopamine. In Parkinson's disease, the level of dopamine in certain brain regions is too low, resulting in motor symptoms. Although each person's experience may be different, there are four main symptoms of Parkinson's disease:

- Tremor (shaking or trembling of your hands, arms or legs)
- Stiff muscles
- Slow movements
- Problems with balance or walking

There is currently no medication that cures Parkinson's disease or modifies the progression of the disease. Current treatments provide some symptom control and aim to improve quality of life. Generally, most treatments do so by temporarily imitating, restoring or "normalizing" dopamine levels in brain regions that control body movements. Different classes of drugs exist that can temporarily replenish low dopamine levels. Drugs that temporarily replenish low dopamine do so by various ways such as replacing dopamine, imitating dopamine or preventing the breakdown of dopamine in the brain.

## How is Parkinson's disease treated?

Right now in Canada, there are different ways to treat Parkinson's disease. Your doctor may decide to use several of these different approaches when treating your symptoms to find the right combination for you.

- 1. Oral medications
- 2. A transdermal system (a "patch")
- 3. An intestinal gel
- 4. Deep brain stimulation
- 5. Alternative treatment options

The most widely used treatment for Parkinson's disease is drug therapy. There are many different options. Oral medications are effective for early treatment; there is also a transdermal system (a "patch"), which delivers medication through the skin. At a later stage, as the disease progresses, it is possible that the motor symptoms (including involuntary movements that a person with Parkinson's can't control, called dyskinesia) are severe, disabling and can no longer be controlled with available oral/patch medications. At that time, treatment options may include an injectable medicine, or an interventional therapy. Interventional therapies involve a surgical procedure as a way of managing later Parkinson's disease.

Drug therapies are not the only approach. There are also alternative treatment options available for the treatment of Parkinson's disease that may be used in combination with drug therapy, or used alone in early Parkinson's. For example, exercise and balance training, music therapy, and physiotherapy may be used in combination with drugs or devices as complementary therapy, or may be used alone in the early treatment phase.



# Which medication is right for me?

Not all treatment options are appropriate for every patient. Each treatment has its own benefits and drawbacks, and choosing one treatment over the other is based on careful consideration of several factors. Together, you and your doctor will discuss your treatment options and decide what's best for you.

Here are some of the things you and your doctor will consider:

- Your age
- Vour symptoms (e.g., more stiffness or tremor)
- Your lifestyle (whether you are working or retired; what kind of leisure activities you enjoy)
- Your overall physical health
- Whether you have balance problems with walking
- Whether you have changes in intellectual abilities
- Vour own attitude towards taking medication

#### Starting a new treatment

Starting treatment or changing treatments is a big step, and knowing what your options are can help you feel more in control of your treatment experience.

The goal of therapy is to reduce motor symptoms and improve quality of life without causing too many side effects. Because Parkinson's disease can progress at a different rate for each person, your symptoms, and how they are treated, may change over time. Your doctor will adjust your medication, or try different treatments to help manage your symptoms. It is important to tell your doctor how you are responding to your treatment, so that you get the care that's most suitable as your condition changes.

The following pages include a summary of the current treatment options in Canada for early Parkinson's disease.

# Treatment options in early Parkinson's disease

		EARLY PARKINSON'S	DISEASE
		ORALS	
DRUG CLASS	Levodopa	COMT inhibitors and combination with levodopa/carbidopa	MAO B inhibitors
WHAT IT DOES	Levodopa is converted to dopamine in the brain then stored in nerve cells to replace depleted dopamine	COMT inhibitors can improve the duration of levodopa by blocking an enzyme responsible for breaking it down before it reaches the brain	Enhances the effect of dopamine by preventing its breakdown
EXAMPLES	Levodopa/carbidopa immediate release ( <sup>Pr</sup> Sinemet <sup>®</sup> )	Entacapone ( <sup>p</sup> rComtan <sup>®</sup> )	Rasagiline ( <sup>Pr</sup> Azilect®)
	Levodopa/carbidopa controlled release ( <sup>Pr</sup> Sinemet <sup>®</sup> CR) 521 Levodopa/benserazide immediate release ( <sup>Pr</sup> Prolopa <sup>®</sup> )	Levodopa/ carbidopa/ entacapone ( <sup>Pr</sup> Stalevo <sup>®</sup> )	Selegiline <sup>†</sup>
COMMON SIDE EFFECTS <sup>†</sup>	Abnormal movements, nausea	Uncontrollable movements (dyskinesias), nausea, discoloration of urine, sweat and saliva, diarrhea, muscle and/or joint pain	Headache, flu-like symptoms, musculoskeletal pain, joint pain, depression, urinary urgency, indigestion, falls

<sup>+</sup> Generics, pill images not available.

‡ Not a complete list of side effects. Refer to the respective Product Monographs for more information.

Treatments aimed at temporarily restoring dopamine in the brain may help to relieve the motor symptoms of Parkinson's disease. It is important to take your Parkinson's treatment exactly as prescribed by your doctor.

All medications cause side effects, but they do not necessarily affect all people. It is recommended to discuss any questions you have about the side effects with your doctor.

			РАТСН
Dopamine agonists	Amantadine	Anticholinergics	Dopamine agonists
Mimics the action of dopamine	Enhances dopamine release and blocks another brain chemical called glutamate	Corrects an imbalance of dopamine and another brain chemical called acetylcholine	Mimics the action of dopamine
Pramipexole ( <sup>pr</sup> Mirapex®) © Bromocriptine <sup>+</sup>	Amantadine⁺	Benztropine <sup>†</sup> Ethopropazine <sup>†</sup> Procyclidine <sup>†</sup> Trihexyphenidyl <sup>†</sup>	Rotigotine ( <sup>Pr</sup> Neupro®)
Nausea, stomach ache, constipation, dizziness, sleepiness, compulsive disorders	Nausea, dizziness, insomnia	Blurred vision, nervousness, listlessness, agitation, constipation	Skin irritation under the patch, nausea, headache, sleepiness

# It is important to find the right balance between the medication's benefits and side effects

#### Later stage of Parkinson's disease

At a later stage, it is possible the medications you've been taking are no longer providing adequate relief from severe and disabling motor symptoms. At this time, there are interventional treatment options that may be considered: intestinal gel medication and deep brain stimulation (DBS). Interventional treatment strategies involve a surgical procedure and are usually only considered after oral medications have been tried. There is also an injectable option that is used "as needed" (i.e., as a "rescue medication"), which is taken along with other oral medication, to treat sudden loss of control of body movements.

#### Additional treatment options in later Parkinson's disease

	LATER PARKINSON'S DISEASE
	APOMORPHINE INJECTION
DRUG CLASS	Dopamine agonist
WHAT IT DOES	Mimics the action of dopamine
ADMINISTRATION	Injection under the skin (subcutaneous injection)
EXAMPLE	PrMovapo™
COMMON SIDE EFFECTS	Drowsiness or sleepiness, sudden uncontrolled movements (dyskinesia), dizziness

<sup>+</sup> Not a complete list of side effects. Refer to the Product Monograph for more information.



INTESTINAL GEL MEDICATION	DEEP BRAIN STIMULATION	
Levodopa/carbidopa	Not applicable	
Levodopa is converted into dopamine in the brain. Carbidopa is used together with levodopa to improve the effect of levodopa and reduce the unwanted effects of levodopa	DBS changes the electrical signals in the brain that cause symptoms of Parkinson's disease	
A gel is pumped continuously throughout the day, until bedtime, directly into the small intestine through a tube called a percutaneous endoscopic gastrostomy- jejunal, or PEG-J, tube	Electrodes are implanted within certain areas of the brain and are connected by wires to a type of pacemaker device implanted under the skin in the upper chest. The electrodes produce electrical impulses that help regulate abnormal impulses	
Levodopa/carbidopa ( <sup>pr</sup> DUODOPA®)	Not applicable	
Side effects of the medication: Upset stomach, vomiting, involuntary movements	Possible complications of the surgery: Bleeding in the brain, stroke, infection	
Problems related to the surgery: Pain in the abdomen, redness and swelling around the surgical wound, excessive tissue growing	Possible side effects after surgery: Seizure, infection, headache Possible side effects of stimulation: Numbness	
around the surgical wound Problems related to the tubing: Dislocation of the tubing, blockage in the intestine	or tingling sensations, muscle tightness of the face or arm, speech problems	

# Alternative treatment options in Parkinson's disease

Treating Parkinson's disease may include complementary forms of therapy that can be considered in addition to your standard treatment. These approaches may also be used alone in the early treatment phase of Parkinson's disease. These therapies include:

- Physical exercise
- Speech and language therapy
- Relaxation exercises
- Cognitive exercises
- Physiotherapy
- Massage therapy
- Nutrition

Like conventional medicines, no type of alternative therapy has been found to stop the progression of Parkinson's disease. If you're interested in using alternative medicine as part of your Parkinson's disease treatment program, talk to your doctor about which alternative therapies might be helpful for you.



### Preparing for your next doctor's appointment

It can be helpful to ask yourself some questions prior to your next medical appointment, and to prepare a list of questions for your doctor. This may help you get the answers you need and make your visit as helpful as possible. Here are some questions to consider if you are starting treatment or changing treatments; you may have additional questions that pertain to your unique situation.

#### Questions about your treatment:

- Am I satisfied with my current treatment for Parkinson's disease?
- Do I experience side effects? Does it seem like my medicine is working or not?
- What would be the next step if this treatment stops working?

#### Questions about your symptoms:

- Have I experienced new symptoms or a worsening of my condition since my last doctor's visit?
- Are all of my symptoms relieved by my current treatment? Which symptoms are still present?
- Do I have difficulty managing the timing of my food with my medication?
- Are there alternatives to drugs that might help manage my particular symptoms (e.g., exercise, psychological support, etc.)?

#### Questions about your quality of life:

- Am I still able to take care of myself or do I need help with things like dressing, feeding, personal hygiene or walking?
- Do I still participate in my favorite activities? Do I feel more anxious or am I losing interest in them since my last doctor's appointment?
- Where can I find support for Parkinson's (e.g., a patient association)?

### Preparing for a doctor's appointment? Please refer to the next page for tips about tracking your symptoms

# Keeping track of your symptoms

Keeping a symptom diary is a good way to keep track of your Parkinson's symptoms. The diary will help you and your doctor understand which symptoms you experience, if they change from day to day, and the impact on you. There are many different formats a diary can take - use whatever works best for you. The diary below is an example of how your diary could look.

The important thing is to note your symptoms (describe them to the best of your ability), the time of day they occur, and how long they last. If you are unsure how to describe your symptoms, it might help to review the symptom brochure called, A short guide to symptoms in Parkinson's *disease* to learn more. This brochure is available at:

#### http://www.abbvie.ca/en/community/education-tools-resources.html

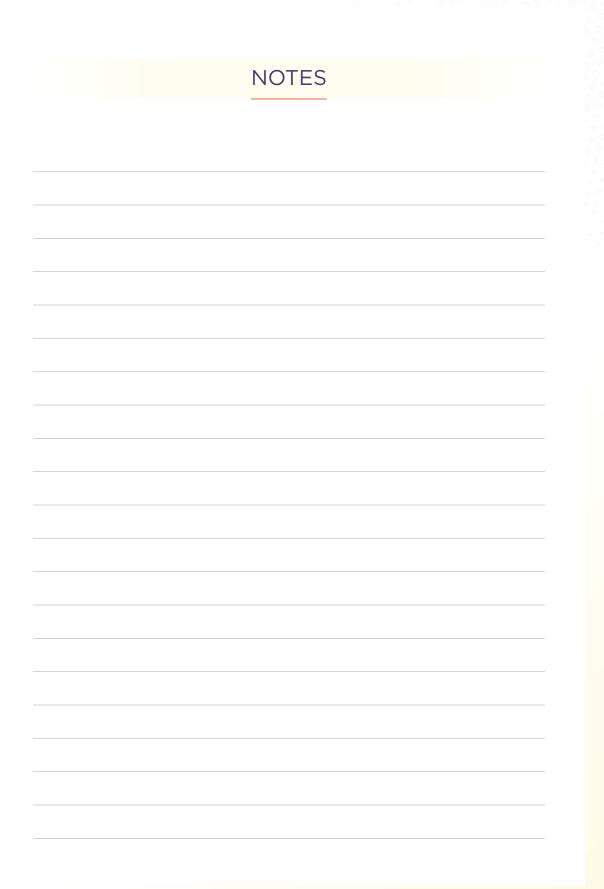
Remember to bring your symptom diary with you when visiting your doctor. It can help you have a productive discussion with your doctor.

woke ı	up at: 7:00 am
	nedication at these times (list all): n; 2:00 pm; 10:00 pm
Time	Record symptoms or side effects you experience throughout the day
7:00	
8:00	
10:00	
12:00	

#### **REMEMBER!**

Speak to your doctor if you are concerned about how much time you are experiencing symptoms





Throughout your experience with Parkinson's disease, talk to your doctor to make sure you understand which treatment is right for you



Contact **Parkinson Society British Columbia** for support, information and resources.



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