

Treatment Options for Parkinson's disease

Medication is the primary treatment for symptoms of Parkinson's disease (PD). In a few cases, surgery may also be an option. It is very important for you, your family and/or caregivers to develop a solid understanding of the treatment options that may be available.

Exercise, stress management, proper nutrition and other available complimentary therapies should also be part of your treatment plan for living well with PD.

Do I need a Neurologist?

According to the [Canadian Guidelines on Parkinson's Disease](#), people suspected of having Parkinson's should be referred to a neurologist for diagnosis and ongoing care.

A neurologist is a physician who diagnoses and treats disorders of the nervous system. A medical referral by a family physician or a medical specialist is required for a consultation. The neurologist will report findings to the family physician.

Neurologists are located throughout BC, although people living in small towns and rural communities may have to travel some distance for a consultation. Many community neurologists treat a variety of neurological disorders including Parkinson's, but they may not specialize in one specific disorder.

To look for a family doctor or a neurologist in your area, please go to website of the College of Physicians and Surgeons of BC and click on "[Find a Physician](#)" or call them at 1-800-461-3008.

Movement Disorders Specialists are neurologists that specialize in movement disorders, like Parkinson's. There are currently three Parkinson's clinics across BC: Pacific Parkinson's Research Centre (PPRC), located at the University of British Columbia, Okanagan Movement Disorders Program (OKMove), located in Kelowna, and a Neurology Clinic with two Movement Disorder Specialists, located at Jim Pattison Outpatient Care and Surgery Centre in Surrey. You can be treated at one of these clinics with a referral from either a family doctor or a neurologist. Keep in mind that there may be a significant wait list so get your referral in sooner rather than later.

Patients of PPRC and OKMove are eligible for participation in clinical trials and they have access to support from allied healthcare professionals (such as a clinic nurse, social worker, speech-language pathologist and physiotherapist). You do not need to participate in research in order to be a patient at these Centres. Information about clinical trials can be obtained by visiting their website.

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What medications are used to treat Parkinson's?

Parkinson Canada's [Medications to Treat Parkinson's disease booklet](#) mentions medications from six pharmacological classes that are commonly used to treat symptoms of PD:

1. **Dopamine precursors/Levodopa:** cross the blood-brain barrier and convert into dopamine in the brain, and medication of this class include Sinemet IR or CR (Levodopa+Carbidopa Immediate Release (IR) or Controlled Release (CR)), Prolopa (Levodopa+Benserazide), and Duodopa gel (Levodopa+Carbidopa). Sinemet or L-dopa is known to be the gold standard medication to treat symptoms of PD.
2. **Dopamine Agonists:** mimic the action of dopamine in the brain by stimulating brain receptors, and include medications such as Mirapex (Pramipexole), Requip (Ropinirole) and Parlodel (Bromocriptine; caution: side effects may be injurious to heart and lungs), and Neupro patch (Rotigotine). Caution: dopamine agonists may cause impulse control disorders (ICDs), which are usually reversible with dose reduction or discontinuation.
3. **Monoamine-Oxidase (MAO) Inhibitors:** block an enzyme that breaks down levodopa, and include medications such as Azilect (Rasagiline) and Selegiline.
4. **Catecholamine-O-Methyl Transfers (COMT) Inhibitors:** slow or prevent the breakdown of levodopa in peripheral tissues, allowing more levodopa to be available in the brain to be converted into dopamine. Medication include Comtan (Entacapone), Stalevo (Entacapone+Levodopa+Carbidopa), Tasmar (Tolcapone; caution: limited use due to severe risk of liver damage).
5. **Anticholinergic Agents:** correct an imbalance between dopamine and acetylcholine that occurs in PD, and include medications such as Artane (Trihexyphenidyl), Cogentin (Benztropine), Kenadrin (Procyclidine).
6. **N-Nethyl-D-Aspartate (NMDA) Antagonists:** Enhance dopamine release by blocking glutamate, a neuro-transmitter, and include medication like Symmetrel (Amantadine).

When someone has only mild symptoms which do not interfere with their quality of life (or activities of daily living, such as dressing, eating, bathing), they may decide, together with their physician, to postpone drug treatment until symptoms worsen. During that time, they may decide to rely on a healthy lifestyle by focusing on exercise, stress management and diet.

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Medications can, however, provide relief or a significant decrease in symptoms. Increasing the amount of dopamine can alleviate the symptoms, but does not slow the progression of Parkinson's. As the symptoms worsen, more medication may be needed.

As Parkinson's is a very individual condition, medication is prescribed and adapted to individual needs and can help to achieve good symptom control. Response to medication varies from person to person and not every medication will be considered suitable for everyone.

Ask your physician and/or pharmacist for information about PD medications and possible side effects. If side effects are experienced, they should be reported to the physician as soon as possible.

Medication Timing is Everything!

Taking medication on time is a crucial part of treatment.

It is very important for the person with Parkinson's and their family and friends to understand the actions and side effects of medications and what improvement can be reasonably expected.

If you are taking medications to treat Parkinson's, **timing of your doses of medication is extremely important**. If you are recently diagnosed, you may not notice any difference in your mobility or your symptoms when you forget to take a dose. As the disease progresses, however, the timing of your medication becomes critical. This is primarily due to the nature of the medication and how your brain uses it.

Why is timing so important?

- Medications must be taken on time to maximize normal functioning and symptom control. If you delay taking your medication it can decrease its effectiveness and interrupt your symptom control. A delay may also increase anxiety.
- A regular schedule may help delay the development of motor fluctuations ("ON" and "OFF" periods) down the road.
- When a medication routine is interrupted, it may take hours or days to return to optimal functioning.

Some people with Parkinson's experience heightened anxiety when they are "off", that is, when their medications are wearing off or not working. For maximum physical and emotional comfort, take your pills on time. For more information, have a look at our Aware in Care resources on our website – www.parkinson.bc.ca.

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Are generic medications as effective as brand-name medications?

As brand-name drugs get older, they cease to be protected by the patent held by the pharmaceutical company that developed the drug. Once this happens, the drug can be 'copied' and produced more cost-effectively. This copied medication is called the generic version.

The generic medications are, in most cases, identical to the brand-name drug and most people using them are satisfied with them. In some instances, however, people using the generic medication find that it is not as effective as the brand-name drug. Some people with Parkinson's have found this to be the case with the brand name of levodopa/carbidopa, Sinemet.

Many drug insurance plans will only pay for the generic version of a medication and the purchase of the brand-name drug can become a financial burden to the patient. If you find that the generic version is not as effective, talk to your doctor about obtaining "Special Authorization" from BC Pharmacare for coverage of the brand-name product.

Your doctor can complete a Special Authorization form and submit it to Pharmacare on your behalf, describing the need for the brand-name medication. The form can be downloaded from the BC Ministry of Health Services website - www2.gov.bc.ca/assets/gov/health/forms/5328fil.pdf.

Across Canada there are patient payment assistance programs that are run by brand name pharmaceutical manufacturers to provide savings on brand name prescription medicines. Sometimes, these patient payment programs can be challenging to find so there are organizations which can help connect you to the pharmaceutical payment assistance programs, free of charge. RxHelp.ca and innoviCares are two examples of such organizations. You may also wish to review the Parkinson Society British Columbia Advocacy webpage to learn about our activities relating to healthcare and medication availability in BC - www.parkinson.bc.ca/about-us/advocacy/.

Do the medications have side effects? If so, how are they handled?

All pharmacological agents (medication, vitamins, and supplements) can cause side effects. Drugs used to treat Parkinson's are no exception but this does not mean they should be avoided. Side effects for all of the common medications for Parkinson's may be reversed by lowering the dosage or discontinuing treatment.

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In addition, there are simple measures to control most of them. The more common side effects include:

Nausea

If you are feeling nauseated in spite of taking medications after food, speak to your doctor. Your doctor may be able to prescribe a medication for you to control the nausea. In some cases the nausea medication may only be needed for the first weeks or months of treatment, after which time the Parkinson's medication may be tolerated more effectively by your system. See [Parkinson's Disease: Understanding and Moving Forward](#) for more tips.

Dizziness

This is often caused by low blood pressure (hypotension). Dizziness most often occurs in the early stages of treatment and during periods of hot weather, but it often responds to simple measures and may wear off over time. However, if your balance is poor and you feel dizzy, you may fall and this can lead to a fracture with serious consequences. See our [Low Blood Pressure help sheet](#) for more information.

Impulsive Behaviour

Dopamine Agonists may contribute to behavioural changes in people with Parkinson's disease. Examples include risk-taking, excessive gambling, cleaning, shopping or obsessive interest in sex. When this behaviour is excessive it can damage relationships and cause great financial and personal hardship. It is vital for changes in behaviour to be reported to the family physician or specialist even though this may be embarrassing. These impulsive behaviours can disappear once dopamine agonists are changed or substituted for a different class of drug.

Sleepiness

Some people find that their anti-Parkinson's drugs make them suddenly very sleepy. If you sleep well at night but still have excessive daytime sleepiness you should talk to your physician who may recommend adjusting your medication, or adding another medication commonly used to alleviate some of the daytime sleepiness.

Dyskinesia

Dyskinesia refers to the uncontrolled movements, often of the upper body, that are a common side effect of high dosages of levodopa. If you are concerned about dyskinesia, talk to your doctor about possibly reducing the dosage of levodopa.

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Are there medications I should not take while taking Parkinson's medications?

Yes, there are medications that are strictly contraindicated (must not be taken) with Parkinson's medications, including:

- **All Neuroleptics** (a class of drugs used mainly in the treatment psychiatric conditions), except "Atypicals" (a limited number of medications with properties unlike the standard neuroleptics)
- **All conventional antipsychotic medications**, such as "Haloperidol", "Risperidone", and "Olanzapine"
- **Major tranquilizers** (a class of drugs used to treat symptoms such as severe agitation and anxiety)
- **Certain drugs for nausea** including "Prochlorperazine" (Compazine) and "Metoclopramide" (Reglan and Maxeran)
- **Demerol** (must be used with caution)

Never assume that a medical professional is aware that you take Parkinson's medication and, further, is aware of the contraindications. You must inform all of your doctors about these critical restrictions. This is particularly important in an emergency situation, surgery or hospitalization when you may be seen by a physician who is unfamiliar with your situation.

Contact PSBC to obtain your very own Aware in Care kit, which contains various printed and portable resources, as well as information about these restricted drugs, and carry it with you at all times. For more information, visit www.parkinson.bc.ca/resources-services/aware-in-care/.

What about surgery for Parkinson's?

Deep Brain Stimulation (DBS) is a form of surgical therapy for the treatment of Parkinson's disease and essential tremor. It involves placing a metal wire into a specific site in the brain and stimulation of the site with electrical impulses. DBS has shown to be beneficial for certain select patients by helping the motor symptoms as well as some of the non-motor symptoms of Parkinson's. See our [Deep Brain Stimulation](#) help sheet for more information on DBS.

DUODOPA® is another surgical treatment that is used to treat patients with advanced Parkinson's disease who have severe and disabling motor symptoms that cannot be well controlled with available combinations of medications. It is a levodopa and carbidopa drug combination delivered in the form of a gel through an intestinal pump. For more information, please contact Parkinson Society British Columbia.

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Surgery is NOT a standard treatment for everyone with Parkinson's and is not an alternative to drug therapy. It is considered only when all medical options have been exhausted. In a limited number of cases, surgery can be effective. The best candidates for surgery meet criteria addressing the length of time since diagnosis, the kind of symptoms, reaction to medications, overall physical health, and overall mental health and stability.

What else can help in the management of symptoms?

Exercise

Exercise can maintain flexibility of joints, muscle strength, improve circulation to the heart and lungs and aid digestion. It also has a positive psychological effect, helping to deal with day-to-day stress and giving the person a sense of control over the condition. It does not alter the fact that a person has Parkinson's but it can help how they feel about it.

Exercise in combination with good drug therapy can help a person to remain active and enhance the quality of life. Stretching exercise, aerobic exercise and strengthening exercises are important. Many people with Parkinson's find that yoga, Tai Chi or Qui Gong (gentle form of Tai Chi) are helpful along with walking and swimming.

Safety, joint protection and balance are important considerations when exercising. Start slowly and consult your physician before starting a new activity.

Physiotherapy

Physiotherapy is a treatment that uses physical means to relieve pain, regain range of movement, restore muscle strength and return patients to the normal activities of daily living. People with Parkinson's can benefit from an assessment by a physiotherapist as a way of identifying and treating specific areas of the body where weakness or stiffness is a concern. Physical therapists can recommend exercises to address specific concerns.

If you are a patient at Pacific Parkinson's Research Centre or Jim Pattison Outpatient Care and Surgery Centre, you can also make an appointment with their physiotherapist who can assess you and refer you to a community therapist.

To find a physical therapist, go to the [Physiotherapists Association of BC](#) and click on "Find a Physio" or contact us 1-800-668-3330 to help you find one in your local area.

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Speech & Swallowing Therapy

Many people with Parkinson's develop some degree of speech and swallowing difficulties. Changes in speech and swallowing may occur at any stage of PD, and as a result of decreased coordination or reduced movements of the muscles involved in breathing, swallowing, voice, pronunciation, and prosody (rhythm, intonation, and speaking rate). Often the first change noted in speech is loss of volume resulting in a soft or fading voice. The first indication may be frequent requests by family and friends to repeat what has been said. A Speech-Language Pathologist (SLP) can evaluate speech and swallowing problems, provide information and recommend a program.

A particular form of speech therapy that is helpful for people with Parkinson's is called Lee Silverman Voice Therapy (LSVT). You may wish to contact the B.C. Association of Speech/Language Pathologists & Audiologists for general information about speech therapy or to locate one trained in LSVT, visit www.lsvtglobal.com.

Diet and Nutrition

Nutrition can help to maintain your best level of health if you have Parkinson's. If you have nutrition-related questions or develop problems such as weight change, poor appetite, difficulty chewing or swallowing, or constipation, consultation with a registered dietician may be helpful.

There is no special diet for people with Parkinson's, but it is thought a Mediterranean diet is best. Eat a variety of foods each day from the four food groups as indicated by the [Canada Food Guide](#) to obtain all nutrients needed for good health. Some people with Parkinson's may notice that their medications do not work as well when they take them with protein. In these cases, people may wish to take their medication either an hour before, or an hour after, meals with protein. It is not recommended that people with Parkinson's remove protein from their diet - rather, they may need to have it at different times in the day. For more information, please see our help sheet on [Levodopa, Protein and Medication](#).

Counselling

Need an understanding ear or someone to talk to? Parkinson Society British Columbia offers free, short-term, confidential and non-judgmental counselling services for people touched by Parkinson's disease. Counselling will provide you with a safe and structured environment to discuss challenges, process emotions and provide you with the extra support you and your loved one(s) may need.

Our clinical counsellors have experience working with people living with Parkinson's and their loved ones. They are able to help in dealing with any combination of issues including: coping with a diagnosis, life transitions, grief/loss, depression, and anxiety. Call today to learn more about our counselling program at 1-800-668-3330.

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Are there alternative treatments that can be beneficial?

After the diagnosis of Parkinson's, sometimes people search for different methods of treating the symptoms. Presently, there is considerable interest in alternative treatments.

When investigating alternative treatments, consider the following:

- **What is the evidence of the effectiveness?** The best evidence appears in peer-reviewed scientific journals. Treatments which have not been put through the rigors of scientific evaluation should be approached with caution.
- **What is the cost of the treatment?** The cost of some treatments is exorbitant and it is not uncommon for a person, desperate for relief, to pour considerable savings into a treatment that is speculative at best.
- **Can the treatment do harm?** The risks associated with any treatment must be clearly explained and completely understood. Of particular concern, is whether or not any supplement or other pills dangerously interact with Parkinson's medication.
- **What is the source of supplement** and how is the potency regulated?

Use extreme caution when undertaking an alternative treatment. Inform your physician before embarking on any alternative treatment.

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