

Medications and Treatment for Parkinson's

Parkinson's is a complex condition and everyone has different needs. The best person to advise on your individual medications and treatments is a doctor with experience or a special interest in Parkinson's.

Medications

Medication is the primary treatment for Parkinson's. The medications used to treat Parkinson's works to restore dopamine in the brain to a more normal level, in order to address the motor symptoms. It is important to take prescribed Parkinson's medications on time, every time!

Levodopa

This is the main treatment for Parkinson's and is considered the gold standard globally. It is the precursor to dopamine and is combined with a decarboxylase inhibitor which supports levodopa to cross into the brain and treat the symptoms of Parkinson's.

This medication starts at a low dose and slowly increases. Levodopa never stops working - the dose will alter as Parkinson's progresses, keeping the level of dopamine topped up.

The medications available in Australia are:

- Sinemet (levodopa and carbidopa) 100/25mg; 250/25mg
- Sinemet CR 200/50 CR – controlled release
- Kinson (levodopa and carbidopa) 100/25mg (generic medication)

- Sinadopa (levodopa and carbidopa) 100/25 mg (generic medication)
- Madopar (levodopa and benserazide) 50/12.5mg; 100/25mg; 200/50mg
- Madopar HBS 100/25mg – long acting
- Madopar Rapid 100/50mg 50/12.5mg

Side effects include nausea, dizziness and sometimes vivid dreams. When you have been taking these medications for some time, you may develop some involuntary movement called dyskinesia. Some people also report hallucinations. Dopamine based medication can cause blood pressure to fluctuate and cause dizziness. Side effects can be treated; always speak to your treating doctor about any concerns.

Dopamine agonists

These medications mimic the effect of dopamine on the dopamine receptors. Initially, they may be used on their own or as an adjunctive medication to dopamine replacement therapy.

The different types of dopamine agonists are:

- Sifrol (pramipexole) 0.125mg; 1mg; 1.5mg
- Sifrol ER (extended release pramipexole) 0.375mg; 0.75 mg; 1.5mg; 2.25mg; 3mg; 3.75mg; 4.5mg Simipex (pramipexole) 0.125mg; 0.25mg; 1 mg (generic medication)
- Neupro (rotigotine) 2mg; 4mg; 6mg; 8mg (transdermal patch)
- Cabaser (cabergoline) 1mg; 2mg Side effects include nausea and blood pressure changes causing dizziness, confusion and sleepiness. This medication can also cause some people

to develop compulsive behaviours such as gambling, compulsive eating or increased sex drive.

In addition to these side effects, Cabaser has an ergotamine base and can cause fibrosis in the lungs, kidneys and retroperitoneal areas. Your treating doctor will screen for fibrosis if you are taking this medication. If you experience a side effect while taking a dopamine agonist you should not stop this medication abruptly - your Neurologist will reduce the dose over time.

Monoamine oxidase type B inhibitors (MAO-B inhibitors)

These medications help your nerve cells make better use of the dopamine in your brain by blocking an enzyme called monoamine oxidase type B which otherwise would break down dopamine.

The different types of MAO-B inhibitors are:

- Selegene, Eldepryl (selegiline hydrochloride) 5mg. This medication is usually taken twice daily. Aim to take both doses before midday to avoid sleep disturbance.
- Azilect (rasagiline) 1mg taken once daily
- Xadago (safinamide) 50-100mg taken once daily

Side effects include indigestion, headaches and depression while sleepiness and insomnia can also occur. These medications may interact with commonly used antidepressants, pethidine, decongestants and cold remedies and also some natural medications such as St John's wort. Check with your pharmacist before taking any new medications, vitamins or supplements.

COMT inhibitors

These medications block the COMT enzyme, making the levodopa last longer. They can be useful to boost levodopa if you are experiencing end-of-dose wearing off. COMT inhibitors come as either a tablet or in a tablet combined with levodopa (Stalevo).

The different types of COMT inhibitors are:

- Comtan (entacapone) 200mg – always taken with a dose of levodopa
- Stalevo (levodopa/carbidopa/entacapone) 50mg; 75mg; 100mg; 125mg; 150mg; 200mg
- Ongentys (Opicapone) 50mg- taken once daily preferably at night one hour before or one hour after levodopa.

Common side effects include diarrhoea, discoloration of urine, hallucinations and headaches. Also, involuntary and uncontrollable, difficult or painful body movements. Serious side effects include hallucinations, shortness of breath, fainting and increased levels of the enzyme (creatine kinase) in your blood. Many of these side effects can be managed by your doctor adjusting your other medicines.

These medications will boost levodopa which may cause involuntary movement or dyskinesia.

Amantadine

This medication is a glutamate antagonist and antiviral agent. It is not fully known how this drug works for Parkinson's; however, it does have an anti-Parkinson's effect. It is particularly beneficial for reducing dyskinesia

There is only one type available:

- Symmetryl (amantadine hydrochloride) 100 mg

Side effects can include feelings of anxiety, insomnia, confusion and a mottled rash on the legs.

Anticholinergic medication

These medications block the action of acetylcholine, a brain chemical which sends messages from the nerves to the muscles. They are not commonly used however may reduce tremor and muscle stiffness.

The different types of anticholinergics are:

- Artane (benzhexol hydrochloride) 2 mg; 5 mg
- Benztrop (benzhexol hydrochloride) 2 mg
- Cogentin (benztropine hydrochloride) 2 mg

Side effects can include dry mouth, blurred vision, constipation, urinary retention, confusion and memory loss.

Infused medication and other treatments

Duodopa

This medication is a gel form of levodopa that is administered through a tube placed in the stomach with a smaller tube extending into the duodenum. The gel form of levodopa is administered as a constant infusion smoothing the highs and lows of dopamine which cause motor fluctuations. This medication requires a small operation to place the tube into your stomach.

- Levodopa 20mg/ml carbidopa 5mg/ml as gel solution.

Side effects are the same as levodopa tablets. Problems with the tube, including blockage, infection and pain have also been reported.

Apomorphine

This medication is a powerful dopamine agonist mimicking the effect of dopamine. It is given as an injection or more commonly as an infusion delivered by a needle placed under the skin into the fatty tissues. When given as an infusion, apomorphine will help reduce motor fluctuations and dyskinesia.

The different types available are:

- Movapo (Apomorphine Hydrochloride) 20 mg/2 ml and 50 mg/5 ml solution for infusion
50 mg/10 ml pen fill syringe for intermittent injection
- Apomine (Apomorphine Hydrochloride) 50 mg /10 ml and 100 mg in 20 ml solution for infusion

Side effects are the same as other dopamine agonists, however as it is given as an infusion or injection, skin nodules can form at the injection sites. The injection materials used to inject Apomorphine need to be purchased by the individual. The injection materials also cannot be interchanged between Movapo and Apomine.

Surgery for Parkinson's

Deep Brain Stimulation (DBS) is a surgery that involves placing electrodes into the part of the brain impacted by Parkinson's. Electrical impulses are delivered through these electrodes, stimulating the brain and returning its electrical activity to a more normal state to reduce the motor symptoms of Parkinson's.

Not all people with Parkinson's require DBS. It can be considered as a treatment at any stage of Parkinson's, however increasingly it is being considered around 2-3 years post diagnosis. A good response to levodopa-based medications is a key criterion for suitability for DBS.

Medications to be avoided or used with caution

Parkinson's and its treatment can be complex. Some commonly used medications may worsen Parkinson's symptoms by blocking the action of dopamine or interact in ways that cause additional symptoms.

Commonly prescribed medications to be avoided:

- Maxolon, Pramin (metoclopramide) - used to prevent nausea, these medications block the uptake of dopamine
- Stemetil (prochlorperazine) - used to prevent nausea, these medications block the uptake of dopamine
- Phenergan, Avomine (promethazine) - used for colds and hay fever
- Haldol, Serenace (haloperidol) - used for mood disturbance, these medications block the uptake of dopamine
- SSRI/SNRI/St John's wort - interacts with Azliect and may cause serotonin syndrome

Always check with your pharmacist for any interaction between prescribed, over the counter and complementary, naturopathic, Chinese or herbal medications.

Fight Parkinson's is a leading source of specialised health information and advice services. Through research, education and support, we strive to improve the lives of people living with Parkinson's, PSP, MSA and CBS.

Any medial information provided is for general information purposes only. You should always talk to your treating doctor and qualified healthcare providers for personal medical and health-related instructions.

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