Medications for Parkinson's Disease: Management and Treatment

What are the most common medicines used to treat PD?

Sinemet® (levodopa/carbidopa)

**Levodopa (also called L-dopa) is the most commonly prescribed and most effective medicine for controlling the symptoms of PD, particularly bradykinesia and rigidity.**

Levodopa is a chemical found naturally in our brains. When given as a medicine, it is transported to the nerve cells in the brain that produce dopamine. It is then converted into dopamine for the nerve cells to use as a neurotransmitter.

Sinemet is made up of levodopa and another drug called carbidopa. Levodopa enters the brain and is converted to dopamine while carbidopa prevents or lessens many of the side effects of levodopa, such as nausea, vomiting, and occasional heart rhythm disturbances. It is generally recommended that patients take Sinemet on an empty stomach, at least ½ hour before or one hour after meals.

There are two forms of Sinemet: controlled-release or immediate-release Sinemet. Controlled-release (CR) Sinemet and immediate-release Sinemet are equally effective in treating the symptoms of PD, but some people prefer the controlled release version. Ask your doctor which approach is best for you.
While Sinemet is the most effective medicine and has the fewest short-term side effects, it is associated with high risks of long-term side effects, such as involuntary movements (dyskinesia). Used on a long-term basis, levodopa might also cause restlessness, confusion, or abnormal movements. Changes in the amount or timing of the dose will usually prevent these side effects, but most experts now recommend alternatives to Sinemet, such as the dopamine agonists, and use Sinemet only when the alternatives fail to provide sufficient relief.

**Dopamine agonists**

Dopamine agonists are medicines that activate the dopamine receptor. They mimic or copy the function of dopamine in the brain.

Parlodel®, Requip®, and Mirapex® are all dopamine agonists. These medicines might be taken alone or in combination with Sinemet. Generally, dopamine agonists are prescribed first and levodopa is added if the patient’s symptoms cannot be controlled sufficiently.

Requip and Mirapex are newer medicines, and are safer and more effective than the older drugs, such as Parlodel®. Because the newer dopamine agonists, particularly Requip, are better tolerated and do not have the same risks of long-term complications as levodopa therapy, dopamine agonists are often the first choice of treatment for PD.

However, dopamine agonists do carry a higher risk of short-term side effects such as nausea, vomiting, dizziness, light-headedness, confusion, and hallucinations. Often nausea and vomiting can be controlled when Lodosyn® is also prescribed. In addition, dopamine agonists can rarely cause or worsen impulse control disorders, such as excessive gambling, buying, eating, or sex. This class of drugs may cause sudden sleepiness, so use caution when driving. This is especially true after starting or increasing the dose.

**Symmetrel®**

Symmetrel might be a helpful treatment for people with mild PD, but it often causes significant side-effects including confusion and memory problems. Symmetrel increases the amount of dopamine available for use in the brain, therefore reducing symptoms of PD.
There have been recent reports that Symmetrel might help reduce the involuntary movements (dyskinesia) associated with levodopa therapy.

Anticholinergics (Artane®, Cogentin®)

Anticholinergics are used to restore the balance between the two brain chemicals, dopamine and acetylcholine, by reducing the amount of acetylcholine. This acts to reduce tremor and muscle stiffness in people with PD. These medicines, however, can impair memory and thinking, especially in older people. For this reason, they are rarely used today.

MAO inhibitors

Eldepryl® and deprenyl are two names for the same drug, selegiline. The drug works by helping to conserve the amount of dopamine available by preventing the dopamine from being destroyed. While controversial, there is some evidence that this drug might slow the progression of PD, particularly early in the course of the disease. This drug is well-tolerated by most people, so many experts recommend using it despite the controversies. Common side effects are nausea and vomiting. Another drug in this class is rasagiline.

Eldepryl/deprenyl can interact with other medicines such as Demerol® and many depression medicines. Be sure to talk to your doctor about any other medicine you are taking before taking Eldepryl or deprenyl.

Tasmar®, Comtan® (COMT inhibitors)

When COMT is blocked, dopamine can be retained and used more effectively, reducing PD symptoms. COMT inhibitors can also increase the effectiveness of levodopa.
Medicine guidelines

There is no "cookbook" approach to the successful use of medicines. You and your doctor will have to determine the best treatment approach for you.

Below are general guidelines to taking your medicine. Be sure to ask your doctor or pharmacist for guidelines specific to your treatment.

- Do not split pills or pull capsules apart unless directed by your doctor.
- Drink six to 10 glasses of water a day.
- Warm baths or physical activity might help with digestion and absorption of your medicine.
- Try to know the names of your medicines and how they work. Know the generic and brand names, dosages, and potential side effects. Always keep a list of your medicines and their dosages with you, and exactly how you are taking them. Keep the list with you in your wallet or purse.
- Take your medicines exactly as prescribed by your doctor.
- Do not stop taking or change your medicines unless you talk to your doctor first. Even if you feel good, continue to take your medicines. Stopping your medicines suddenly can make your condition worse.
- Do not double the dose of your medicine.
- Have a routine for taking your medicine. Take your medicine at the same time each day. Get a pillbox that is marked with the days of the week, and fill it at the beginning of the week to make it easier for you to remember.
- Keep a medicine calendar and note every time you take a dose.
- If you miss a dose of your medicine at the scheduled time, don’t panic. Take it as soon as you remember. However, if it is almost time for your next dose, skip the missed dose and return to your regular medicine schedule. Set an alarm clock if necessary.
- Do not keep outdated medicine. Throw old medicines away.
- Store medicines in a dry area away from moisture (unless your doctor or pharmacist tells you the medicine needs to be refrigerated).
- Always keep medicines out of the reach of children.
- Know what side effects to expect from your medicines. Contact your doctor immediately if you experience any unusual or unexpected side effects after taking your medicine.
• Do not share your medicines with others.
• Keep your medicines in your carry-on luggage when you travel. Do not pack your medications in a suitcase that is checked, in case the suitcase is lost.
• Take extra medicine with you when you travel in case your flight is delayed and you need to stay away longer than planned.
• Do not wait until you are completely out of medicine before filling your prescriptions; call the pharmacy at least 48-hours before running out. If you have trouble getting to the pharmacy, have financial concerns, or have other problems that make it difficult for you to get your medicines, let your doctor know. A social worker might be available to help you.

Avoiding interactions with other medicines

• Read all labels carefully.
• Make all health care providers aware of all the medicines you are using.
• Know your drug and food allergies.
• Make a list of your medicines and dosages. Eye drops, skin lotions, and vitamins are considered medicines and should be included on your list. Keep this with you and update it as necessary.
• Review possible drug side effects. Most reactions will occur when a new drug is started, but this is not always the case. Some reactions might be delayed or might occur when a new medicine is added.
• Use one pharmacy if possible. Try to fill all your prescriptions at the same pharmacy, so the pharmacist can monitor for interactions and provide proper dosing and refills.

You have the right and responsibility to know what medicines are being prescribed for you. The more you know about your medicines and how they work, the easier it will be for you to control your symptoms.

You and your doctor are partners in developing, adjusting, and following an effective medicine plan. Make sure that you understand and share the same treatment goals as your doctor. Talk about what you should expect from medicines so that you can know if your treatment plan is working.
Related Institutes & Services

Neurological Institute
The Neurological Institute is a leader in treating and researching the most complex neurological disorders and advancing innovations in neurology.

References:


This information is provided by the Cleveland Clinic and is not intended to replace the medical advice of your doctor or healthcare provider. Please consult your healthcare provider for advice about a specific medical condition. This document was last reviewed on: 10/10/2014