BMJ Best Practice

Patient information from BMJ

Last published: Aug 04, 2021

Parkinson's disease: what treatments work?

It can come as a surprise to find out that you or someone close to you has Parkinson's. You may be worried about what it will mean for the future. But your symptoms may not bother you very much for several years. When they do, there are treatments that can help.

What treatments are available?

Parkinson's affects how you are able to move. An early sign is often a slight trembling in one hand. Over time you start doing things more and more slowly as your muscles become stiff. You may lose your balance more easily.

Parkinson's happens when your brain stops making enough of a chemical called **dopamine**. Brain cells need dopamine to send messages around the brain, and to nerves and muscles throughout your body.

There's no cure for Parkinson's, but **medicines** can help control your symptoms. **Exercise**, **physiotherapy**, and other types of therapy can also help you cope with your symptoms. If your Parkinson's is more advanced a type of surgery called deep brain stimulation might be an option.

Medicines

The most effective medicine for Parkinson's symptoms is called **levodopa**. But this might not be the first medicine you are prescribed. This is because levodopa can cause serious side effects. So doctors often try other treatments first.

Medicines your doctor might prescribe before levodopa include:

- **monoamine oxidase-B (MAO-B) inhibitors**. Taking one of these drugs can help you move more easily and reduce stiffness and shaking. However, they can cause side effects, including dizziness and feeling anxious
- **dopamine agonists**. Dopamine agonists work in a similar way to dopamine in the brain, which can help reduce the symptoms of Parkinson's. Possible side effects include nausea, vomiting, and sleep problems

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- **amantadine** is a medicine that was originally developed to treat flu but was later found to help with Parkinson's symptoms. Possible side effects include nausea, vomiting, and sleep problems
- **anticholinergic drugs**. These are some of the oldest medicines used to treat Parkinson's. Possible side effects include problems with your vision, a dry mouth, bladder problems, and constipation.

These medicines are sometimes used together, or combined with levodopa and another drug called **carbidopa**, which helps levodopa to work better.

Your doctor might also prescribe other medicines to help with the side effects of these treatments, or to improve your symptoms as your Parkinson's becomes more advanced.

You take most medicines for Parkinson's as tablets and capsules, although some come as skin patches, injections, and soluble tablets.

Most people treated for Parkinson's take **levodopa** at some point. This treatment can work so well that your symptoms might clear up for a while.

Levodopa is changed into dopamine in your body. This replaces the dopamine in your brain that is lost if you have Parkinson's.

However, you might get **side effects**. Nausea, vomiting, and sleep problems are the most common. Also, after taking levodopa for several years it can stop working so well, with your symptoms coming back between doses.

Most people also get more serious side effects after five years of taking levodopa. The main problem is abnormal movements that you can't control, such as head nodding, jerking, and twitches. These are called **dyskinesias**.

For these reasons, doctors often prescribe other medicines before levodopa, especially when people are younger and will most likely live many years with Parkinson's.

If your symptoms are mild your doctor might also recommend holding off on taking any medicine until your symptoms become more severe and start to affect your quality of life.

Exercise and other types of therapy

Research has found that **regular exercise** can be helpful for people with any stage of Parkinson's, improving their movements and what they can do physically. Strengthening exercises that use gradually increasing weights seem to be especially helpful.

You might hear this called **progressive resistance exercise**. Other types of exercise, such as Tai Chi and dance, have also been found to be safe and helpful for people with Parkinson's.

You might also benefit from working with therapists who are trained to treat people with Parkinson's.

- A **physiotherapist** can advise you about exercises to help you move more easily.
- An **occupational therapist** can help you to carry on doing things that become harder because of Parkinson's. For example, you might get advice on how to cope around the house or how to continue taking part in leisure activities that you enjoy.
- A **speech and language therapist** can help if you have problems with your voice, speaking, or swallowing. These problems are more likely in advanced Parkinson's.

Deep brain stimulation

A type of surgery called deep brain stimulation might be an option if you have had Parkinson's for a long time and are no longer helped enough by drug treatments.

It can ease some of your symptoms, especially stiff muscles, shaking, and movements you can't control. But how long the benefits of surgery will last varies from person to person. It might be a year or two, or it could be much longer.

Deep brain stimulation involves having a device fitted in your chest. Wires from the device are fixed into a part of your brain affected by Parkinson's. Electrical pulses from the device stimulate this part of the brain to reduce your symptoms.

You can talk to your doctor about whether surgery would be a good option for you. But it's important to remember that surgery cannot cure Parkinson's. And it won't stop your symptoms progressing. You'll probably need to keep taking drugs for Parkinson's after surgery.

What will happen to me?

No one can say for sure what will happen to you if you have Parkinson's. Everyone is different, and the way the conditions affects you might be different from the way it affects someone else.

Some people hardly notice their symptoms in the early stages of Parkinson's and lead a full life for many years. But symptoms usually get worse as time goes by and the brain makes less and less dopamine.

Some people also get other problems related to their Parkinson's, such as depression, fatigue, sleep problems, constipation, and reduced mental ability. Be sure to discuss any problems with your doctor, as there might be treatments that can help.

It's important to stay positive if you can. Take regular exercise and carry on doing the things you enjoy. You might also want to join a support group for people with Parkinson's. All these things can help you cope with your condition.

If you're caring for someone with Parkinson's, you might need support, too. If you feel you can't cope or you become depressed, your doctor or another health professional might be able to put you in touch with local support groups and organisations that offer help.

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