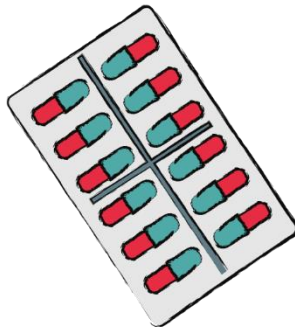




جامعة الإمام عبد الرحمن بن فيصل
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Treatment of Parkinson Disease



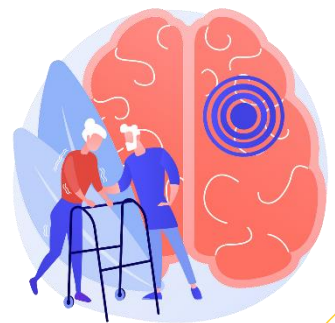
What is the treatment for Parkinson's disease?

Parkinson's disease has no cure at present. But there are ways to help ease its symptoms, such as Supportive therapies, medications, or surgery. Treatments aim to improve the patient's life quality, ease suffering, manage symptoms, and slow disease progression.

What methods help relieve the symptoms of Parkinson's disease?

1. Supportive therapies:

Supportive therapies can assist in managing Parkinson's symptoms and daily challenges.



What methods help relieve the symptoms of Parkinson's disease?

These may include

- **Physiotherapy:** for muscle stiffness and joint pain relief.
- **Occupational therapy:** an occupational therapist can identify areas of difficulty in patient everyday life, such as **dressing** or **getting to the local shops**.

Such as:

- Speech and language therapy teaches
- Exercises to improve swallowing and speech difficulties.
- Dietitians can suggest dietary changes to alleviate certain symptoms for some individuals with Parkinson's.

What methods help relieve the symptoms of Parkinson's disease?

Parkinson's disease?

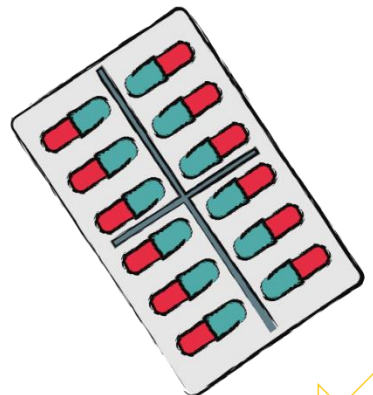
2. Medications:

Medications can help alleviate Parkinson's symptoms like tremor and movement issues.

Note: Not all medications work for everyone, and each has different short- and long-term effects.

The three main types of medications commonly used:

- levodopa
- dopamine agonists
- Monoamine oxidase-B inhibitors.



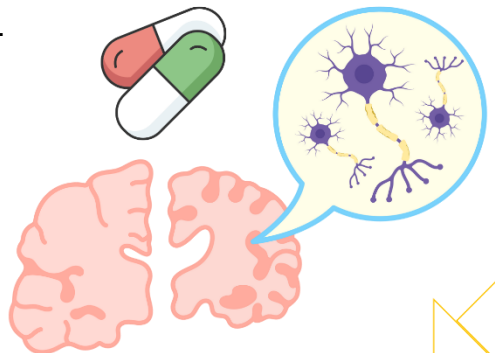
What methods help relieve the symptoms of Parkinson's disease?

Patients with Parkinson's lack sufficient dopamine in their basal ganglia.

Treatment involves providing dopamine replacement through **levodopa**.

- **Levodopa:**

Is the most commonly used medication in patients with Parkinson's the mechanism of action is that levodopa is converted into dopamine by nerve cells in the brain, facilitating communication between brain regions and nerves that control movement.



What methods help relieve the symptoms of Parkinson's disease?

Parkinson's disease?

- Levodopa:

Levodopa is administered orally and should be taken either **one hour before or after a meal** to avoid prolonged or reduced absorption. Common side effects include gastrointestinal symptoms like:

- nausea
- vomiting
- anorexia
- constipation



In the initial stages of treatment, which typically subside after two to three weeks.

What methods help relieve the symptoms of Parkinson's disease?

Parkinson's disease?

Less common side effects may include:

- tachycardia
- orthostatic hypotension
- anxiety
- sleep disturbances
- mood changes
- hallucination



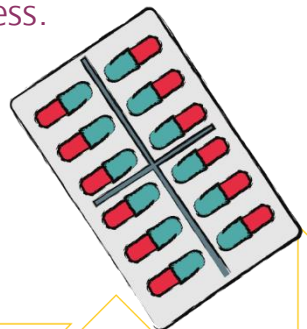
Initially, levodopa can provide significant symptom relief, but its effectiveness may decrease over time due to the loss of nerve cells in the brain, necessitating occasional dose adjustments.

What methods help relieve the symptoms of Parkinson's disease?

Long-term use of levodopa can lead to complications such as:

- uncontrollable, jerky muscle movements known as dyskinesias.
- "On-off" effects: where individuals experience rapid shifts between mobility (on) and immobility (off).
- Dopamine agonists:

Act as a milder substitute for dopamine in the brain, available as tablets or skin patches (like rotigotine). They may be used alongside levodopa and can cause side effects like nausea, fatigue, and dizziness.

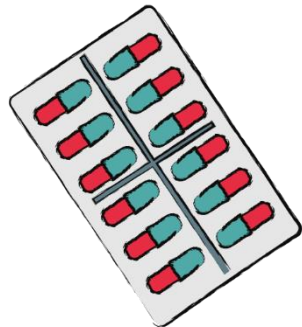


What methods help relieve the symptoms of Parkinson's disease?

- Monoamine oxidase-B (MAO-B) inhibitors:

Are an alternative to levodopa for early Parkinson's treatment. They increase dopamine levels by blocking an enzyme in the brain. While effective, their impact is less than levodopa. They can be used with levodopa or dopamine agonists. MAO-B inhibitors are usually well tolerated but may occasionally lead to side effects such as

- Nausea and headaches.
- Abdominal pain, or fluctuations in blood pressure.



What are the surgical treatment method for Parkinson's disease patients?

There are several surgical procedures that are resorted to in the event that treatment becomes frequent several times a day and to solve the problem of motor fluctuations, the most important of which are:

1. **Deep brain stimulation**, which is a device that is implanted in the brain and connected to a device in the chest to send electrical pulses to specific areas of the brain to control the reduction of tremors, stiffness, and slow movement.
2. **Doudopa pump**, which is a treatment with levodopa/carbidopa in the form of a gel that is pumped through a tube connected to the intestine. It helps reduce motor fluctuations in patients.



What are the surgical treatment method for Parkinson's disease patients?

Note:

Either procedure is chosen by the specialist after conducting several tests, including a memory and mood test, a levodopa test, and other tests.



Sources and References:

All pictures used from [canva.com](https://www.canva.com)

CONTINUUM: Lifelong Learning in Neurology

Review and audit:

The content of this booklet was reviewed by consultants of the Department of Neurology at King Fahd University.

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