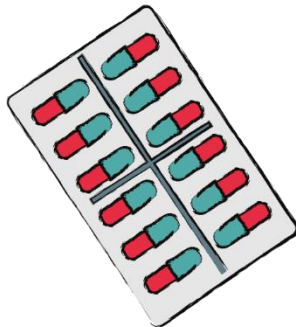




جامعة الإمام عبد الرحمن بن فيصل  
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

مستشفى الملك فهد الجامعي  
King Fahad Hospital The University

# Treatment of Parkinson Disease



## **What is the treatment for Parkinson's disease?**

Parkinson's disease is currently incurable. 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 is the way to alleviate the symptoms of Parkinson's disease?**

### 1. Supportive therapies:

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



# What is the way to alleviate the symptoms of Parkinson's disease?

These may include

- **Physiotherapy:** for muscle stiffness and joint pain relief.
- **Occupational Therapy:** Occupational therapists can identify areas of difficulty in a patient's daily life, such as **getting dressed** or **going to the local store**.

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 is the way to alleviate the symptoms of Parkinson's disease?

## Parkinson's disease?

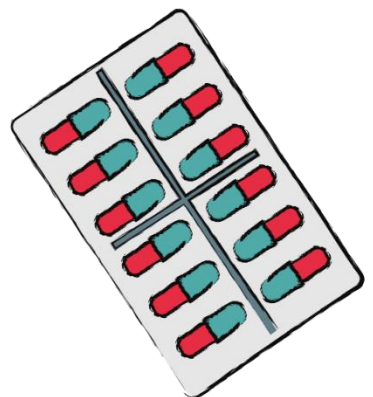
### 2. Medications:

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 primary classes of drugs that are often prescribed are:

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



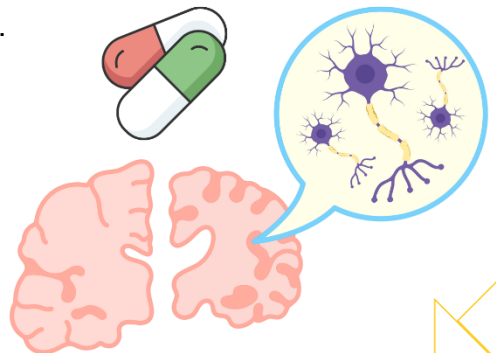
# What is the way to alleviate the symptoms of Parkinson's disease?

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 brain's nerve cells, facilitating communication between brain regions and nerves that control movement.



# What is the way to alleviate the symptoms of Parkinson's disease?

## Parkinson's disease?

Levodopa:

To prevent delayed or decreased absorption, levodopa is given orally and should be taken either **one hour before or after a meal**. Typical adverse effects consist of gastrointestinal complaints such as:

- Nausea
- Vomiting
- Anorexia
- Constipation



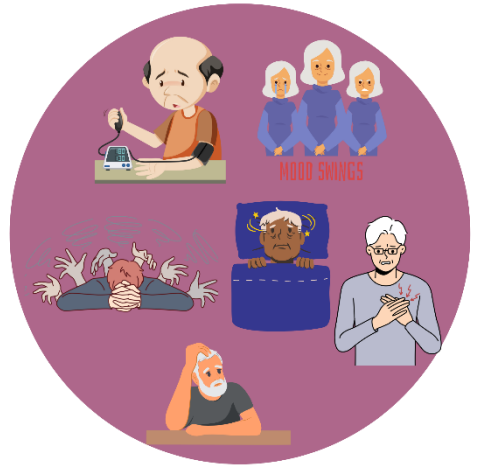
In the initial stages of treatment, which typically subside after two to three weeks.

# What is the way to alleviate the symptoms of Parkinson's disease?

## Parkinson's disease?

Less common adverse effects may include:

- Tachycardia
- Orthostatic hypotension
- Anxiety
- Sleep disturbances
- Mood changes
- Hallucination



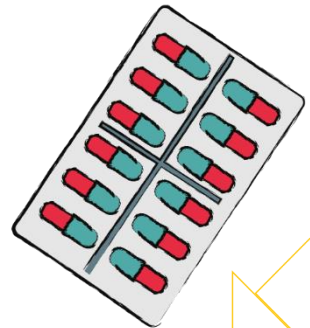
Initially, levodopa can provide significant symptom relief, but its effectiveness may decrease over time due to the loss of nerve cells in the brain, necessitating occasional dose adjustments.

# What is the way to alleviate the symptoms of Parkinson's disease?

Prolonged usage of levodopa may result in issues like:

- Involuntary, abrupt muscle movements referred to as dyskinesias.
- "On-off" effects: where individuals experience rapid shifts between mobility (on) and immobility (off).
- Dopamine agonists:

Function as a less potent alternative to dopamine within 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**.





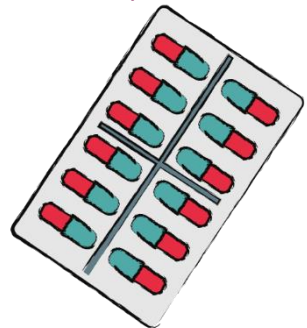
# What is the way to alleviate the symptoms of Parkinson's disease?

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

Can be used as a substitute for levodopa in the early stages of Parkinson's disease treatment. They increase dopamine levels by blocking an enzyme in the brain.

While effective, their impact is less than levodopa. These can be utilized in conjunction with levodopa or dopamine agonists. MAO-B inhibitors are generally well received but can sometimes result in side effects such as

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



# What are the surgical treatment methods 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 linked to a gadget implanted 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 methods 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

CONTINUUM: Lifelong Learning in Neurology

### Review and audit:

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

**Department of Neurology**  
**Health Awareness Unit**  
**IAU-24-567**



**جامعة الإمام عبد الرحمن بن فيصل**  
**IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY**

**مستشفى الملك فهد الجامعي**  
**King Fahad Hospital The University**