Parkinson’s Disease and Apokyn® (apomorphine hydrochloride) Injection

What is Parkinson’s disease?¹,²

Parkinson’s disease is a slowly progressive condition that affects your movement, muscle control, and balance. Patients with Parkinson’s disease have damaged or destroyed nerve cells (called neurons). Nerve cells produce dopamine, which is a chemical that controls muscle movement. Low levels of dopamine along with other chemicals in your brain, such as acetylcholine, lead to symptoms of Parkinson’s disease.

Although Parkinson’s disease generally affects older people, it may also affect younger people. Men are more likely to have Parkinson’s disease than women.

What causes Parkinson’s disease?¹,²

The cause of Parkinson’s disease is still unknown. It may be linked to genes passed down from your parents or from toxins found in the environment.

What are the symptoms of Parkinson’s disease?¹,²

Parkinson’s disease affects everyone differently. Typically, the signs and symptoms of Parkinson’s disease start on one side of the body and will eventually affect both sides.

Main signs and symptoms

- Tremor: Involuntary shaking or trembling of the hands, arms, or legs that is more noticeable at rest. Tremor may be the first symptom that you notice, and it is the most common symptom of Parkinson’s disease.
- Rigidity: Muscle stiffness that causes you to have trouble swallowing or swinging your arms when you walk, and it may cause you to have aches and pain. As your condition progresses, you may have blank or fixed expression, also known as a “masked face.”
- Slow muscle movement that makes tasks such as walking more difficult. You may take shorter steps, or drag your feet more when you walk.
- Difficulty maintaining balance or walking that may lead to increased falls. Poor balance occurs in the later stages of Parkinson’s disease.
Other symptoms may include:

- Tiredness
- Weakness
- Inability to concentrate
- Trouble sleeping
- Foot cramps
- Problems with memory and/or mental clarity
- Softness of voice
- Lack of interest in everyday activities
- Stooped posture
- Depression
- Anxiety
- Loss of hand movement and cramped handwriting

What is an “off” episode?²

An “off” episode occurs when your Parkinson symptoms still exist, even though you take medicines to control them. Symptoms may include muscle stiffness, slow movements, and having difficulty starting a muscle movement. After years of treatment, your medicines’ effect on your symptoms may wear off before the next dose.

How can I care for myself?²

Below are some tips to help you take care of yourself when you have Parkinson’s disease.

General care

- Take your medicine as directed by your doctor
- Use a cane or walker when walking
- Join a support group
- Find ways to manage stress
- Work with a speech therapist to help you improve your speech quality
- Talk to your doctor if you have signs of depression, such as having trouble sleeping, eating too little or too much, or feel sad all the time

Diet and exercise

- Eat healthy and balanced meals
- Talk to you doctor if you have problems swallowing
- Drink plenty of water and eat a high-fiber diet to prevent constipation
- Exercise everyday, or as much as you can

What treatments are available for Parkinson’s disease?³

Although there is no cure for Parkinson’s disease, there are medicines that treat the symptoms. Table 1 lists medicines that are currently available for Parkinson’s disease.
Table 1: Medicines for Parkinson's disease

<table>
<thead>
<tr>
<th>CLASS</th>
<th>MEDICINE</th>
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<tbody>
<tr>
<td>Dopamine Precursor</td>
<td>• Parcopa®, Sinemet®, Sinemet CR® (levodopa/carbidopa)</td>
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<tr>
<td>Monoamine Oxidase-Type B (MAO-B) Inhibitors</td>
<td>• Azilect® (rasagiline)</td>
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<td>• Eldepryl®, Zelapar® (selegiline)</td>
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<tr>
<td>Dopamine Agonist</td>
<td>• Apokyn® (apomorphine hydrochloride) injection</td>
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<tr>
<td></td>
<td>• Mirapex® (pramipexole)</td>
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<tr>
<td></td>
<td>• Parlodel® (bromocriptine)</td>
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<td></td>
<td>• Permax® (pergolide)</td>
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<td></td>
<td>• Requip® (ropinirole)</td>
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<tr>
<td>COMT Inhibitors</td>
<td>• Comtan® (entacapone)</td>
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<tr>
<td></td>
<td>• Tasmar® (tolcapone)</td>
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<tr>
<td></td>
<td>• Stalevo® (carbidopa/levodopa and entacapone)</td>
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<tr>
<td>Anticholinergics</td>
<td>• Artane® (trihexyphenidyl)</td>
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<tr>
<td></td>
<td>• Cogentin® (benztropine)</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>• Symmetrel® (amantadine)</td>
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What is Apokyn (apomorphine hydrochloride)?

- Apokyn is a medicine that is used to treat “off” episodes in advanced Parkinson’s disease
- Apokyn should not replace your current medicines for Parkinson’s disease
- Apokyn should be used only as directed by your doctor

Who should not take Apokyn?

Do not take Apokyn if you are:
- Allergic to sulfite (metabisulfite): Sulfite is an ingredient that is found in Apokyn. Sulfite may cause severe and life-threatening allergic reactions, especially if you have asthma.
- Treated with certain medicines for nausea and vomiting or irritable bowel syndrome. Some of these medicines may cause you to have severely low blood pressure, or you may lose consciousness (blackout). These medicines include:
  - Anti-nausea: Anzemet® (dolasetron), Aloxi® (palonosetron), Kytril® (granisetron), and Zofran® (ondansetron)
  - Irritable bowel syndrome: Lotronex® (alosetron)
- Do not give Apokyn to children.
What are some of the side effects of Apokyn?4

Some side effects may include:

- Yawning
- Falls
- Severe nausea and/or vomiting
- Swelling of your hands, arms, legs, and feet
- Runny nose
- Injection site reaction
- Sleepiness, or falling asleep during the day
- Sudden uncontrolled movements (dyskinesia) that is worsened with the use of Apokyn
- Dizziness or fainting
- Headache
- Intense urges, such as gambling or increased sexual urges

Contact your doctor right away if any of the following side effects occur:

- Heart problems: Shortness of breath, fast heartbeat, or chest pain
- Severe nausea and vomiting
- Hallucinations (seeing or hearing things that are not real), confusion, agitation, aggressive behavior, delusional beliefs (believing things that are not real), or disorganized thinking
- Depression

How do I take Apokyn?4

- Your doctor will teach you and your caregiver the proper way to inject Apokyn before starting the medicine
- Do not inject into the vein
- Change your site of injection each time you use Apokyn to lower your chances of getting an injection site reaction
- Do not inject Apokyn into an area of skin that is red, sore, or infected
- Always use a fresh needle for each injection
- Only inject Apokyn if the solution is clear and colorless
  - Do not use if the solution is cloudy, green, or contains any particles

What should I avoid while taking Apokyn?4

- Do not drink alcohol
- Do not take medicines that make you sleepy
- Do not drive cars, operate machinery, or do anything that might put you at risk for getting hurt
• Do not change your body position too fast, get up slowly after you have been sitting or lying down

**How should I store Apokyn?**

Store Apokyn cartridges at room temperature, 77°F (25°C). When traveling, keep the cartridges at 59°F to 86°F (15°C to 30°C). Keep Apokyn out of the reach of children.

**What other resources are available?**

For more information on Parkinson’s disease, please contact the following resources:

**American Parkinson Disease Association, INC.**
Phone: **1-800-223-2732**
Website: www.apdaparkinson.org

**National Parkinson Foundation, INC.**
Phone: **1-800-327-4545**
Website: www.parkinson.org

**Apokyn Circle of Care™**
Phone: **1-877-7APOKYN (1-877-727-6596)**, select Option 2
Website: www.apokyn.com

**References:**


The information in this educational handout doesn’t substitute the medical advice, diagnosis, or treatment provided by your doctor. Always seek the help of your doctor or a qualified health provider for any questions about your medical condition.