

## Orthostatic Hypotension in Parkinson's Disease: Essential Facts for Patients

### What is orthostatic hypotension and how common is it in Parkinson's Disease?

Blood pressure (BP) is one of the most important vital signs. BP may have normal variations. For example, it is often a little higher during day than at night. BP may also increase during stress. When people stand up, their blood pressure may drop slightly for a few seconds. But it usually returns to normal quickly.

When BP doesn't return to normal quickly after standing up, it is referred to as orthostatic, or postural, hypotension. This form of low blood pressure happens in about one third of patients with Parkinson's disease (PD). It is less common early in the disease, but happens more often as the disease progresses.

BP readings have two numbers, for example 120/80mmHg. The top number is the systolic BP. That is the highest pressure when the heart beats and pushes blood through the body. The bottom number is the diastolic BP. That is the lowest pressure when the heart relaxes between beats. Orthostatic hypotension is defined as a drop in the systolic number of at least 20mmHg or in the diastolic number of at least 10mmHg within 3 minutes after standing.

### What are the symptoms of orthostatic hypotension? Are they dangerous?

People with orthostatic hypotension may have a variety of symptoms when they stand up, including:

- Light-headedness
- Dizziness
- Weakness
- Fatigue
- Nausea
- Blurred vision
- Cognitive slowing
- Legs buckling
- Headache or neck pain radiating to the shoulders (so-called coat-hanger pain).

One of the dangers of orthostatic hypotension is that it may cause falls. Sometimes the drop in BP can be severe enough to cause fainting and loss of consciousness (this is called syncope).

Orthostatic hypotension may be more common during the following times:

- In the early morning
- In hot weather
- After a meal (particularly big meals)
- After drinking alcohol
- When urinating or having a bowel movement
- During physical exercise

### Do PD medications cause orthostatic hypotension?

Some PD medications may cause this form of low blood pressure or make it worse. Those medications include levodopa and similar drugs. But even people who don't take PD medications may have orthostatic hypotension. High blood pressure medicine and other drugs may also cause this form of low blood pressure in PD patients.

**What can PD patients do to improve orthostatic hypotension problems?**

PD patients may try the following strategies to help relieve problems with orthostatic hypotension, possibly with their caregiver's help.

- Drink more fluids.
- Drink 250-500 ml of water quickly over a period of 3-4 minutes. Do this first thing upon waking up if symptoms occur when getting out of bed or in the morning.
- Minimize or avoid drinking alcohol.
- Stand up slowly and stand still when feeling dizzy or lightheaded.
- Avoid standing still or laying in a flat position for long periods.
- Avoid too much exposure to hot environments, such as hot baths, saunas, etc.
- Elevate the head of the bed when lying down—try using a wedge under the head of the bed.
- Increase the amount of salt in the diet (if high blood pressure is not a problem).
- Eat smaller, more frequent meals.
- Wear elastic compression stockings or abdominal binders. It is important that compression stockings go all the way up the leg to the hip or over the abdomen.

**Are there medications to treat orthostatic hypotension in PD?**

The PD patient should review all medications with the doctor. Certain medications may need to be stopped or cut back.

Several medications may be helpful in treating orthostatic hypotension in PD patients. These include fludrocortisone, midodrine, and droxidopa. These drugs can be used alone or in combination. Doses can be adjusted to help prevent BP from dropping to very low levels. Care is needed to be sure the BP does not go too high when lying down.

**What should PD patients do when they have orthostatic hypotension symptoms?**

The PD patient should sit or lie down immediately when having orthostatic hypotension symptoms. This should cause symptoms to disappear. Other things the PD patient can do to overcome postural symptoms, are shown below.

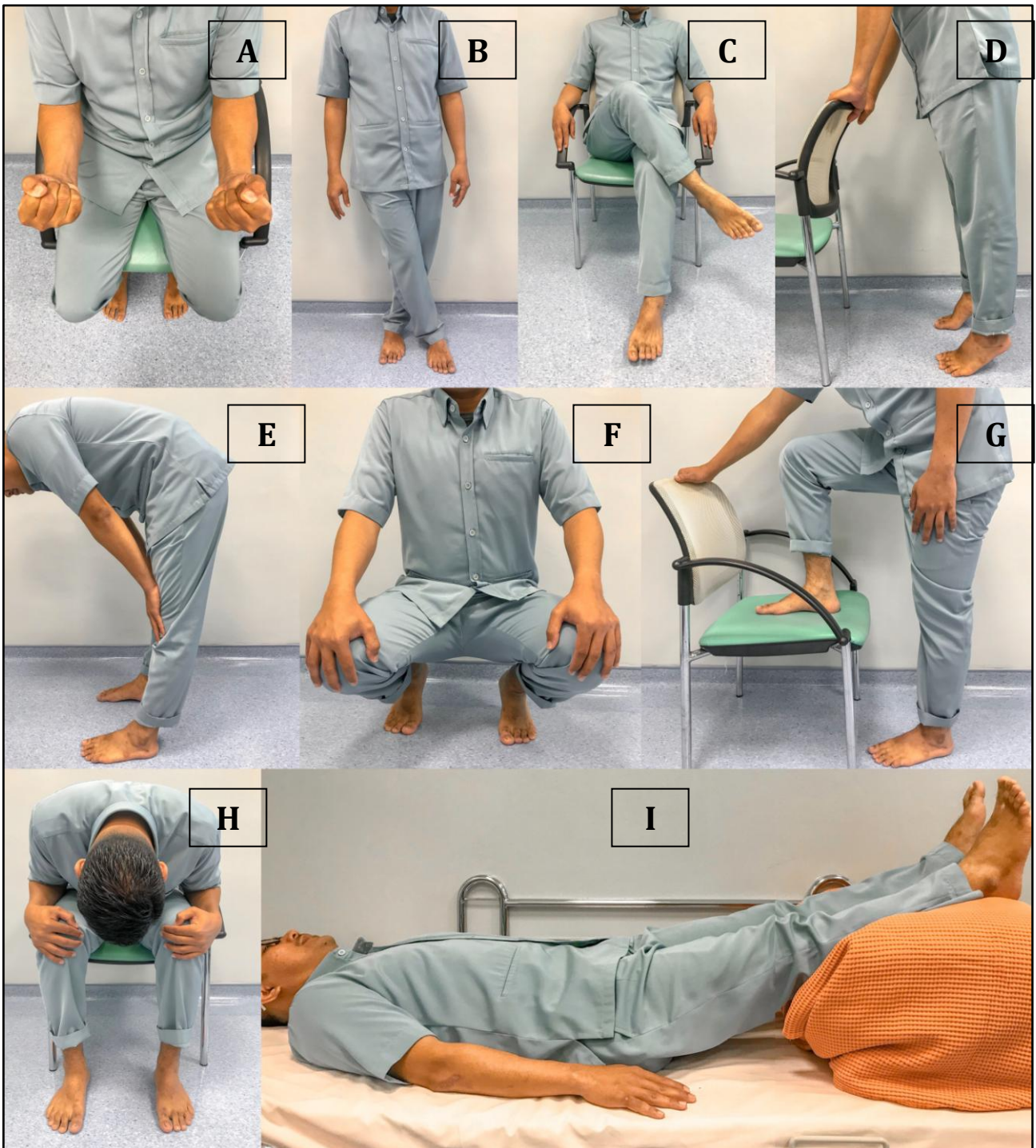


Figure: Things you can do when you are experiencing symptoms of orthostatic hypotension.

- A. Fist clenching
- B. Leg crossing
- C. Sit down with leg crossing
- D. Toes raise
- E. Lean forward
- F. Squat
- G. Place a foot on one stool or chair
- H. Sit in a knee-chest position (crash position)
- I. Lie down with legs raised

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Note: These physical manoeuvres should be tailored according to the patient's ability, with extra caution in those who are at risk of falls.