

What is neurogenic orthostatic hypotension (nOH)?

nOH is a subset of orthostatic hypotension and is prevalent in patients with autonomic dysfunction.¹⁻³ In these patients, there is insufficient compensatory peripheral release of norepinephrine, the major neurotransmitter responsible for blood pressure maintenance, upon standing or following postural change.^{2,4,5} Due to this norepinephrine deficiency, there is inadequate vasoconstriction to maintain blood pressure or cerebral blood flow.^{1,5,6} This may lead to symptoms of nOH, which may increase the risk of falls and lead to serious consequences.^{7,8}

Symptoms can manifest after a patient with nOH stands up and improve when a patient sits down.^{1,10}



What are the symptoms of nOH?

The cardinal symptoms of nOH include dizziness and lightheadedness.^{6,9,10} Other symptoms include^{6,9}:

- Syncope
- Generalized weakness
- Fatigue
- Blurred vision
- Cognitive slowing
- Coat-hanger (neck and shoulder) pain
- Orthostatic dyspnea
- Orthostatic angina

A patient's medical history may help determine risk

Patient groups at risk for nOH include^{2,3,8,11}:

- Patients with a pre-existing neurodegenerative disorder such as Parkinson's disease, multiple system atrophy, or pure autonomic failure
- Patients with unexplained syncope
- Patients with autonomic neuropathy
- Patients experiencing postural dizziness or nonspecific symptoms that only occur upon standing and diminish upon sitting or lying down
- Elderly patients

Patients may struggle to manage nOH symptoms

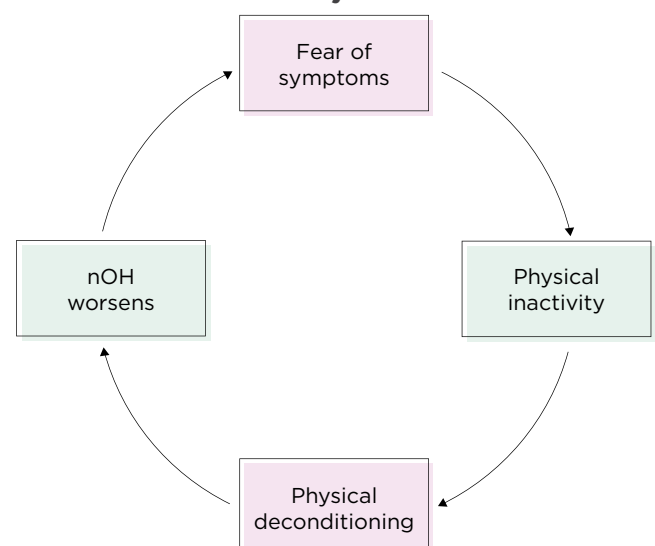
Patients with nOH may experience symptoms that can make daily tasks a challenge.^{1,4,6,12,13}

The frequency and severity of symptomatic episodes can be unpredictable.^{1,4,6} This unpredictability of events contributes to a vicious cycle of nOH.

Unpredictable symptoms contribute to the vicious cycle of nOH

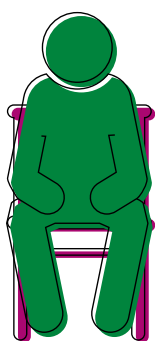
In this cycle, fear of symptomatic events and falls may lead patients to reduce physical activity, which can lead to physical deconditioning and the worsening of nOH symptoms.^{1,4,6}

The vicious cycle of nOH^{1,4,6}



What are some diagnostic considerations for nOH?

<p>In-clinic monitoring—Measuring orthostatic blood pressure and heart rate after patient is supine for 5 minutes and again after standing or sitting for a few minutes may help identify nOH.^{14,15}</p>	<p>At-home monitoring—Orthostatic blood pressure measurements taken at home may help confirm nOH in patients with delayed symptomatic episodes.^{3,4,14,16}</p>
<p>Excluding other causes—There may be other causes for unexplained symptomatic episodes besides nOH.^{3,8,14}</p>	<p>Specialty testing—Specialty tests, including 24-hour ambulatory blood pressure monitoring and the tilt-table test, may help identify nOH in symptomatic patients.^{3,4,6}</p>



How can I help my patients manage their nOH symptoms?

If your patient feels dizzy, experiences syncope, or has other symptoms that occur upon standing and improve upon sitting, consider recommending the following lifestyle adjustments^{3,6}:

Changes in diet

- Drinking a minimum of 2 L of water daily
- Increasing salt intake
- Eating smaller and more frequent meals, low in carbohydrates

Physical adjustments

- Exercising in the recumbent position (eg, stationary bicycle, rowing machine)
- Avoiding increased core body temperature
- Elevating head of bed 6 to 9 inches
- Wearing compression stockings or abdominal binder

In addition to lifestyle adjustments, there are pharmacologic options that may help a patient manage symptoms of nOH.⁶

A diagnosis could make a difference.⁴

For more information about nOH, visit [nOHmattersHCP.com](https://www.nOHmattersHCP.com).

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