



The Medical **Bulletin**

In Hypertension

In Assessing Patients for Orthostatic Hypotension, Start with Supine Blood Pressure Measurements

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Going from supine to standing is more sensitive than going from sitting to standing.

When you assess patients for orthostatic hypotension (OH), do you have them go from supine to standing, or from seated to standing? Researchers compared the two methods, using data collected in a previously published trial of vitamin D and falls in older adults (age, ≥ 70) who were at above-average risk for falls (NEJM JW Gen Med Feb 1 2021 and Ann Intern Med 2021; 174:145). For 534 participants, both supine-to-standing and seated-to-standing orthostatic blood pressure measurements were obtained as many as 4 times during the 2-year study. For both protocols, measurements were done several times during the 3 minutes after standing. Two thirds of patients had hypertension, managed with one or more antihypertensive drugs.

OH (systolic drop of ≥ 20 mm Hg or diastolic drop ≥ 10 mm Hg) was documented more commonly with the supine than with the seated protocol (15% vs. 2%). Supine (but not seated) systolic OH was associated significantly with having a fall during follow-up. Moreover, supine (but not seated) OH was associated with patient-reported fainting and presyncopal symptoms during the previous 30 days. COMMENT I was pleased to see this study, because it corroborates my longstanding preference for using the supine approach. Supine-to-standing blood pressure measurement was more sensitive for detecting OH, and the increased sensitivity was clinically relevant because supine OH was associated with falls and orthostatic symptoms. Another way to enhance detection of OH is to check standing blood pressures for as long as 10 minutes in selected patients: Although most clinically important OH occurs soon after standing, delayed OH is a well-documented entity that sometimes explains orthostatic symptoms noted by patients only after standing for several minutes (NEJM JW Gen Med Dec 1 2015 and Neurology 2015; 85:1362).

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