

ORTHOSTATIC HYPOTENSION

Written by: **MICHELLE L. LANGE**, OTR/L, ABDA, ATP/SMS

Orthostatic hypotension is low blood pressure that typically occurs upon standing from a sitting or lying position. Therefore, the condition is also referred to as postural hypotension. Hypotension can cause a person to feel dizzy, lightheaded, have blurry vision, hear roaring in the ears, feel nauseous, be confused or even faint. The condition is more likely if a person is dehydrated, has low blood sugar, is overheated, or has been on prolonged bed rest. People with certain chronic health conditions are more likely to experience orthostatic hypotension.

When we stand up, gravity can cause more blood to remain in the lower body rather than circulating back to the heart, leading to low blood pressure. Baroreceptors sense low blood pressure and signal the brain which cues the heart to pump more blood. When this process is interrupted, orthostatic hypotension may occur.

Certain nervous system disorders can affect the normal blood pressure regulation system. This includes Parkinson's disease, multiple sclerosis, and spinal cord injuries. In spinal cord injuries, nervous system control, which typically keeps blood pressure stable, is damaged and loss of muscle tone reduces the ability of the body to return blood to the heart. Orthostatic hypotension is more common during acute recovery and in people with higher level injuries.

When a client using a wheelchair experiences orthostatic hypotension, it is critical to have them lay down immediately to restore normal blood pressure. It may not be possible to transfer this person to a lying position quickly (i.e., out in the community) and so recline can be used to remediate this condition. The client should return to upright sitting slowly to maintain stable blood pressure. In the morning, the client should also slowly raise the head of the bed to accommodate before transferring into the wheelchair. It is also helpful to be well hydrated. Abdominal binders and compression socks may be used to minimize hypotension upon positional changes.

Orthostatic hypotension is a serious medical condition that can lead to fainting. If a client is already sitting upright in their wheelchair when this occurs, the brain may not receive enough blood supply and brain damage could occur. It is critical that the client can independently recline and do so quickly before fainting occurs. If a client experiences a sudden worsening of hypotension symptoms, they should

return to their doctor to determine the cause. An infection can sometimes trigger orthostatic hypotension.

CONTACT THE AUTHOR

Michelle may be reached at

MICHELLELANGE1@OUTLOOK.COM.

REFERENCES:

1. ORTHOSTATIC HYPOTENSION, MAYO CLINIC. [HTTPS://WWW.MAYOCLINIC.ORG/DISEASES-CONDITIONS/ORTHOSTATIC-HYPOTENSION/SYMPTOMS-CAUSES/SYC-20352548](https://www.mayoclinic.org/diseases-conditions/orthostatic-hypotension/symptoms-causes/syc-20352548).
2. SHIRLEY RYAN ABILITY LAB. [HTTPS://WWW.SRALAB.ORG/LIFECENTER/RESOURCES/SPINAL-CORD-INJURY-COMPLICATIONS-ORTHOSTATIC-HYPOTENSION](https://www.sralab.org/lifecenter/resources/spinal-cord-injury-complications-orthostatic-hypotension).

Michelle Lange is an occupational therapist with 30 years of experience and has been in private practice, Access to Independence, for more than 10 years. She is a well-respected lecturer, both nationally and internationally, and has written numerous texts, chapters and articles. She is the co-editor of Seating and Wheeled Mobility: a clinical resource guide; editor of Fundamentals in Assistive Technology, 4th ed.; NRRTS Continuing Education Curriculum Coordinator and Clinical Editor of DIRECTIONS magazine. Lange is on the teaching faculty of RESNA and is a member of the Clinician Task Force. She is a certified ATP, certified SMS and is a Senior Disability Analyst of the ABDA.

