

## Compression Garments Improve Balance For Those With hEDS

A randomized, controlled trial in France found that compression garments improve balance in hypermobile Ehlers-Danlos Syndrome (hEDS) patients. Balance problems are common with hEDS, likely due to a combination of unstable ankles and poor proprioception (the sense of where you are and how you are moving in space). The study was conducted at an EDS clinic and recruited 36 adult hEDS patients who were randomly divided into two groups. The first group participated in supervised physical therapy three times a week for four weeks aimed at improving lower body strength, balance, and posture. The second group also participated in physical therapy sessions but in addition were custom fitted with compression leggings, socks, and a vest. The group was told to wear the garments at least 8 hours per day for the entire study period.

Balance for both groups was assessed at the start of the study and four weeks later using a force plate which could calculate how much and how fast each subject swayed under different conditions, such as standing still eyes open and standing still eyes closed. Note, the compression group was assessed at the beginning both with and without the compression garments on.

The researchers found that the compression garments had an immediate, positive effect on balance. In other words, subjects in the compression group performed better on the balance tests right after putting on the compression clothing. In addition, the compression group saw larger balance improvements over the four weeks than the physical therapy group. Both groups reported an improvement in joint pain, but there was no difference between the groups in this regard.

The authors believe that the compression garments improve balance by mechanically triggering receptors involved in proprioception. In fact, they point out that some studies have found that compression garments improve balance in healthy controls and athletes as well.

It could not be determined from this study if the positive effects of the compression garments on balance would continue if the participants stopped wearing them or if balance would improve even more after a longer period of wear. Although additional studies are needed to answer these questions, this initial work does provide hope to hEDS patients struggling with balance issues.

**Source:** Effects of compression garments on balance in hypermobile Ehlers-Danlos syndrome: a randomized controlled trial. Benistan K, Foy M, Gillas F, Genet F, Kane M, Barbot F, Vaugier I, Bonnyaud C, Gader N. *Disabil Rehabil*. 2023 May 17:1-10. doi: 10.1080/09638288.2023.2209742. Online ahead of print. PMID: 37194618

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