

Better benefits from home-based walking than supervised facility exercise in PAD patients

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Research led by the Feinberg School of Medicine, Northwestern University, Illinois, found that home-based walking exercise regimens

outperformed supervised treadmill physical therapy in patients with lower extremity peripheral artery disease.

In a paper, "Home-Based Walking Exercise and Supervised Treadmill Exercise in Patients With Peripheral Artery Disease: An Individual Participant Data Meta-Analysis," published in *JAMA Network Open*, the research team compared data from five [randomized clinical trials](#) on [exercise therapy](#) for [peripheral artery disease](#) (PAD) from 2009 to 2022.

Three trials compared supervised [treadmill exercise](#) to a [control group](#) (N = 370). Two trials compared effective home-based walking exercise to a control group (N = 349). All participants performed a 6-Minute Walk (6MW) test, which recorded the distance walked in six minutes.

The 6MW test is often used to assess the functional capacity of individuals with various medical conditions, including cardiovascular and respiratory diseases. It provides insight into a person's ability to perform regular daily activities involving walking. Participants are given standardized instructions and encouraged to walk back and forth in a designated corridor for six minutes. They can stop and rest if needed but are encouraged to continue walking once they feel able.

Home-based walking exercise improved 6MW distance by 50.7 meters, while supervised treadmill exercise improved it by 32.9 meters, compared to the non-exercise control group.

Interestingly, while the supervised treadmill exercise resulted in much lower performance on the actual walking test, there was a significantly greater improvement in maximum treadmill walking distance. This may suggest that gains seen in [treadmill](#) performance do not translate as well into gains in regular walking activities, though they could have advantages in other cardiopulmonary areas.

Supervised exercise sessions can be challenging for some patients to participate in as they require travel to a facility for each exercise session, co-payments under most health insurance plans, and limited availability of treatment locations, all resulting in low participation rates.

Home-based exercise programs are conducted by individuals in or around their own homes. These programs do not require the physical presence of an exercise physiologist or a coach during each exercise session and remove the burdens of cost and travel.

The findings support home-based walking exercise as a better alternative to supervised sessions but a first-line therapy for walking limitations in PAD.

More information: Neela D. Thangada et al, Home-Based Walking Exercise and Supervised Treadmill Exercise in Patients With Peripheral Artery Disease, *JAMA Network Open* (2023). [DOI: 10.1001/jamanetworkopen.2023.34590](https://doi.org/10.1001/jamanetworkopen.2023.34590)

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