

Can a Self-Directed Walking Program Help To Limit the Rate of Decline in Physical Ability among People with Blocked Arteries in the Legs?

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The full report is titled “Physical Performance in Peripheral Arterial Disease: A Slower Rate of Decline in Patients Who Walk More.” It is in the 3 January 2006 issue of *Annals of Internal Medicine* (volume 144, pages 10-20). The authors are M.M. McDermott, K. Liu, L. Ferrucci, M.H. Criqui, P. Greenland, J.M. Guralnik, L. Tian, J.R. Schneider, W.H. Pearce, J. Tan, and G.J. Martin.

What is the problem and what is known about it so far?

People with hardening of the arteries in the legs, a condition known as peripheral arterial disease (PAD), often have pain when they walk. About 20% to 30% of older people have PAD. Research previously showed that PAD tends to worsen over time, but participation in a regular physical rehabilitation program that includes supervised treadmill walking at least 3 times per week has been shown to improve walking performance and slow the progression of the disease. Doctors have been advised that they should recommend a supervised exercise program for their patients with PAD. One problem with this approach is that many patients with PAD have difficulty attending a supervised exercise program because it is expensive or because they cannot arrange for transportation. Doctors do not know if similar improvement can be achieved by having patients walk for exercise without professional supervision.

Why did the researchers do this particular study?

To find out if people with PAD who report that they walk for exercise 3 or more times per week have less rapid decrease in their walking ability than those who walk less frequently.

Who was studied?

417 patients with confirmed PAD.

How was the study done?

Participants in the study were questioned about which activities caused leg pain and the characteristics of the pain when it occurred. The researchers then tested participants' physical ability by measuring the distance they could walk in 6 minutes and by observing their ability to get up from a chair unassisted, how well they maintained balance in a standing position, and how fast they could walk over a short distance. The researchers also asked participants how often they walked for exercise and how long each walking session lasted. Participants were divided into 3 groups: those who walked for exercise at least 3 times per week, those who walked fewer than 3 times per week, and those who did no walking for exercise. Measurements of physical ability were repeated annually for an average of 3 years.

What did the researchers find?

Self-directed walking for exercise at least 3 times a week was associated with a slower decline in ability to perform physical activities over the years of observation. Participants with the worst PAD at the start of the study were the ones most likely to benefit from a regular self-directed walking program.

What are the limitations of the study?

Because participants in this study were not asked to change any of their habits, the researchers could not be certain that walking for exercise was the only factor that was responsible for differences in exercise abilities among the groups.

What are the implications of the study?

People with PAD may benefit significantly from regular walking for exercise even if they cannot take part in a supervised exercise program.

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