

Revascularization before exercise program improves walking for patients with PAD

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Among patients with peripheral artery disease and intermittent claudication (cramping pain in the legs due to poor circulation in the arteries, aggravated by walking), a combination therapy of endovascular revascularization (an invasive procedure to improve blood flow in an artery) followed by supervised exercise resulted in greater improvement in walking distances and health-related quality-of-life measures at one year compared with supervised exercise only, according to a study in the November 10 issue of *JAMA*. This issue, a cardiovascular disease theme issue, coincides with the American Heart Association's Scientific Sessions 2015.

Intermittent claudication is the classic symptomatic form of [peripheral artery](#) disease (PAD), affecting approximately 20 to 40 million people worldwide and increasing rapidly with the aging world population. Patients with claudication experience significant functional disability often resulting in a sedentary lifestyle and reduced quality of life. Supervised exercise is recommended as a first-line treatment. A [combination therapy](#) of endovascular revascularization plus supervised exercise may be beneficial, but few data comparing the two therapies are available, according to background information in the article.

M.G. Myriam Hunink, M.D., Ph.D., of the Erasmus University Medical Center, Rotterdam, the Netherlands, and colleagues randomly assigned 212 patients with PAD and intermittent claudication to endovascular revascularization plus supervised exercise (n = 106) or supervised exercise only (n = 106). The primary measured outcome for the study

was the difference in maximum treadmill walking distance at 12 months between the groups.

The researchers found that endovascular revascularization plus supervised exercise (combination therapy) was associated with greater improvement in maximum walking distance compared with the supervised exercise only group, and in pain-free walking distance. Also, the combination therapy group demonstrated significantly greater improvement in health-related quality-of-life.

"The present study reopens the debate for revascularization in patients with claudication, in particular in terms of an approach using endovascular revascularization first. By improving lower extremity [blood flow](#), early percutaneous revascularization of the target lesion gives an impulse to patient mobility and quality of life in the short-term. This, in turn, facilitates subsequent exercising and allows the patient to profit from the long-term benefits of an additional supervised exercise program," the authors write.

The results of this trial (ERASE) underscore once again the benefits of supervised treadmill exercise for patients with peripheral artery disease, writes Mary McGrae McDermott, M.D., of the Northwestern University Feinberg School of Medicine, Chicago, and Senior Editor, *JAMA*, in an accompanying editorial.

"Randomized trial evidence already convincingly demonstrates that supervised treadmill exercise improves walking performance compared with no exercise. The ERASE trial newly demonstrates that supervised exercise also improves lower extremity outcomes after endovascular revascularization. Current reimbursement strategies in the United States provide significant incentives for clinicians to offer endovascular revascularizations to patients with peripheral artery disease, whereas [supervised exercise](#) remains expensive and inaccessible to patients.

Reducing disability from peripheral artery disease in the 21st century requires strategies to ensure that effective exercise programs are accessible for all [patients](#) with [peripheral artery disease](#)."

More information: *JAMA*, [DOI: 10.1001/jama.2015.14851](https://doi.org/10.1001/jama.2015.14851)
JAMA, [DOI: 10.1001/jama.2015.15116](https://doi.org/10.1001/jama.2015.15116)

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