

## Peripheral Vascular Disease: Treatment in Older Adults

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### Clinical Question

What is the best treatment for symptomatic peripheral vascular disease (PVD) in older adults?

### Evidence-Based Answer

PVD can be effectively treated with supervised exercise therapy, cilostazol, lipid-lowering therapy, and antiplatelet therapy. All of these treatments increase pain-free walking distance. Antiplatelet therapy also decreases the need for surgical revascularization. The best treatment is supervised exercise therapy, which increases maximal pain-free walking distance by up to 180 m. (Strength of Recommendation: A, based on systematic reviews of randomized controlled trials [RCTs].)

### Evidence Summary

A meta-analysis of 14 RCTs with 1,002 patients 57 to 70 years of age with PVD compared supervised exercise therapy with nonsupervised exercise therapy.<sup>1</sup> Supervised exercise consisted of three sessions per week of walking on a treadmill until moderate or intense pain occurred. Nonsupervised exercise groups were advised to walk three times per week at an intensity ranging from tolerable to intense pain. Supervised exercise increased the maximal walking distance with a moderate effect size of 0.51 (95% confidence interval [CI], 0.24 to 0.81) and 0.69 (95% CI, 0.51 to 0.86) at six weeks and three months, respectively. This translates to a 180-m increase in walking distance.

A meta-analysis of seven RCTs with 1,801 patients older than 40 years with symptomatic PVD examined the effect of 12 to 24 weeks of cilostazol therapy (50 to 150 mg orally twice per day) vs. placebo on pain-free walking distance.<sup>2</sup> Doses of 50 mg and 100 mg increased pain-free walking distance by a

weighted mean difference of 41.3 m (two trials; N = 475; 95% CI, 7.1 to 89.7), and 31.1 m (seven trials; N = 1,326; 95% CI, 21.3 to 40.9). Cilostazol, 150 mg, did not increase pain-free walking distance (one trial; N = 110).

A meta-analysis of 18 RCTs with 10,049 patients (mean age = 62 years) with PVD evaluated lipid-lowering therapy vs. placebo.<sup>3</sup> Pooled analysis showed that lipid-lowering therapy increased mean pain-free walking distance by 90 m (seven trials; N = 326; 95% CI, 30 to 149) and improved maximal pain-free walking distance by 152 m (four trials; N = 236; 95% CI, 32 to 271).

A meta-analysis of 10 RCTs with 4,507 patients 21 to 80 years of age with intermittent claudication evaluated the effect of antiplatelet therapy vs. placebo on walking distance and need for revascularization.<sup>4</sup> In three trials, antiplatelet therapy increased maximal pain-free walking distance by 78 m (N = 415; 95% CI, 12 to 144). In five trials with 2,804 patients, antiplatelet therapy decreased the need for revascularization (relative risk = 0.65; 95% CI, 0.43 to 0.97). Two of the trials reported no difference in bleeding outcomes.

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