

Primary Prevention of Cardiovascular Events with Aspirin

No benefit was observed in a group at high risk for vascular disease.

A low ankle-brachial index (ABI; ratio of systolic pressure at the ankle to that in the arm; normal range, 1.1–1.4) is a marker for peripheral vascular disease. Scottish investigators used ABI to screen asymptomatic patients who might benefit from aspirin for primary prevention of adverse cardiovascular (CV) events. Patients who were receiving antiplatelet drugs were excluded.

A total of 3350 adults with ABI \leq 0.95 (mean age, 62; 71% women; mean ABI, 0.86; 33% smokers) were randomized to receive aspirin (100 mg daily) or placebo. During a mean follow-up of >8 years, no between-group differences were observed for any adverse CV event, revascularization, or stroke (about 13.5 events occurred per 1000 person-years in each group), or for mortality. Risk for major hemorrhage was higher in the aspirin group than in the placebo group (2.0% vs. 1.2%) — a nearly significant difference.

Comment: A recent meta-analysis suggested that the absolute benefit of aspirin in primary prevention is, at best, extremely small ([JW Gen Med Jun 18 2009](#)); in the current study, aspirin conferred no benefit. The authors speculate that aspirin might be useful in patients with low ABIs who are at even higher risk than those in this trial. An editorialist suggests that platelet reactivity measurement could serve as a marker for patients who might benefit.

— [Thomas L. Schwenk, MD](#)

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Citation(s):

Fowkes FGR et al. Aspirin for prevention of cardiovascular events in a general population screened for a low ankle brachial index: A randomized controlled trial. *JAMA* 2010 Mar 3; 303:841.