

## In the absence of heart disease, smaller benefits from statins

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### CLINICAL QUESTION

**Do patients without cardiovascular diseases benefit from statin therapy to lower their cholesterol?**

#### Bottom Line

*In patients without pre-existing heart disease, statin treatment of elevated low-density lipoprotein (LDL) cholesterol will decrease their risk of a first major coronary event and, to a lesser extent, a first cerebrovascular event. Overall mortality and mortality related to heart disease will not be affected by treatment.*

#### Level of evidence

**1a:** Systematic review (with homogeneity) of randomized controlled trials

- **Study design:** Meta-analysis (randomized controlled trials)
- **Funding:** Unknown/not stated
- **Setting:** Various (meta-analysis)
- **Synopsis:** For patients without cardiovascular disease, the effect of cholesterol lowering on the outcomes that matter is much less than for patients with cardiovascular disease. This meta-analysis combined the results of 7 studies involving almost 43,000 patients.

*To find these studies, the authors searched 4 databases, focusing only on randomized studies of statins compared with a control drug for patients without known heart disease. The studies had to be of at least 1 year in duration and report at least 100 cardiovascular outcomes during the study. Two investigators independently extracted the data.*

### FAST TRACK

*The likelihood of a major coronary event dropped significantly; overall mortality was unaffected*

Patients in the studies were between 55 and 74 years of age; the majority were male. The mean LDL cholesterol level was 147 mg/dL (3.82 mmol/L) and it was reduced an average of 26% during the study. The likelihood of a major coronary event significantly decreased with statin therapy over an average 4.3 years of treatment (number needed to treat=73; 95% confidence interval [CI], 56–104). Major cerebrovascular events also decreased, with 1 fewer event for every 281 patients treated (95% CI, 157–1309).

Overall mortality and mortality related to heart disease were not affected by treatment. This is not likely to be a result of small numbers of deaths, since an average 6.6% of people in the control group died, which is similar to the incidence of major coronary events. □