

Statins Prevent Vascular Events, Independent of Baseline CRP Levels

Contrary to some claims, statins benefited high-risk patients with low C-reactive protein levels.

In the 2008 JUPITER trial, healthy adults — with LDL cholesterol levels <130 mg/dL and C-reactive protein (CRP) levels ≥ 2 mg/L — who received rosuvastatin (20 mg daily) for 2 years experienced significantly fewer cardiovascular endpoints than those who received placebo ([JW Gen Med Nov 18 2008](#)). JUPITER suggested that statins had particular benefits in patients with high baseline CRP levels whose risk was otherwise low, perhaps through an anti-inflammatory effect.

In the industry-supported Heart Protection Study, >20,000 U.K. adults at high risk for vascular events received simvastatin (40 mg) or placebo daily for a mean of 5 years. Overall, patients who received simvastatin had 24% fewer first vascular events (myocardial infarction, stroke, or revascularization) than those who received placebo.

LDL cholesterol and CRP levels were available for 2727 patients. When these patients were stratified into six groups according to baseline CRP levels (from <1.25 to ≥ 8.0 mg/L), vascular risk was significantly lower for simvastatin recipients than for placebo recipients in all groups, with no relation to CRP levels. When patients were categorized as having high or low CRP levels and high or low LDL cholesterol levels at baseline, simvastatin recipients with low CRP and LDL cholesterol levels had proportional reductions in vascular risk that were similar to those in participants with high CRP and LDL cholesterol levels.

Comment: Recent evidence suggests that statins produce similar proportional reductions in vascular events regardless of baseline LDL cholesterol levels, and this study suggests that benefits of statins are independent of baseline CRP levels as well, at least in high-risk patients.

— [Bruce Soloway, MD](#)

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