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## **Prognostic Value of Absence of Coronary Calcium**

*The absence of coronary calcium was associated with low event rates, especially in asymptomatic patients.*

Elevated coronary calcium scores are associated with greater burden of atherosclerotic disease. To determine whether the absence of calcium as identified by computed tomography identifies a population at low risk for adverse cardiac events, U.S. investigators conducted a meta-analysis of 49 articles in which the diagnostic and prognostic values of coronary artery calcification were addressed.

In 13 studies that involved 65,000 asymptomatic patients, 25,903 did not have coronary artery calcification; only 146 of such patients (0.6%) experienced adverse cardiac events during a mean follow-up of 51 months. In seven studies in symptomatic cohorts, 17 of 921 patients (1.8%) without coronary artery calcification had adverse cardiac events during a mean follow-up of 42 months.

**Comment:** In this large meta-analysis, the absence of coronary calcium was associated with low event rates, especially among asymptomatic patients. Unsurprisingly, event rates in symptomatic patients were somewhat higher. However, editorialists remind us that more data are needed to determine when scans such as these add incremental prognostic value to standard assessments and whether calcium scoring will lead to improved treatment and outcomes.

— [Kirsten E. Fleischmann, MD, MPH](#)

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### **Citation(s):**

Sarwar A et al. Diagnostic and prognostic value of absence of coronary artery calcification. *JACC Cardiovasc Imaging* 2009 Jun; 2:675.