

Greater density of coronary artery calcium associated with lower risk of CHD, CVD

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Michael H. Criqui, M.D., M.P.H., of the University of California, San Diego, and colleagues determined the independent associations of coronary artery calcium (CAC) volume and CAC density with cardiovascular disease events. An increasing body of evidence suggests that greater calcium density in plaques (measured by computed tomography) is associated with decreased CVD risk.

The study included 3,398 men and women from 4 race/ethnicity groups; non-Hispanic white, African-American, Hispanic, and Chinese. Participants were 45-84 years of age, free of known CVD at baseline, had CAC greater than 0 on their baseline CT, and were followed up through October 2010.

During a median (midpoint) of 7.6 years of follow-up, there were 175 CHD events and an additional 90 other CVD events for a total of 265 CVD events. Analysis of the data found that CAC volume was positively and independently associated with CHD and CVD risk. At any level of CAC volume, CAC density was inversely and significantly associated with CHD and CVD risk.

"The role of CAC density should be considered when evaluating current CAC scoring systems," the authors write.

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