

Higher coronary artery calcification linked to increased mortality in elderly men

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NEW YORK (Reuters Health), Jan 8 - Higher coronary artery calcification scores in elderly men are associated with an increased risk of death over 3 years of follow-up, according to a study published in the December issue of the *Journal of the American Geriatrics Society*.

"Coronary artery calcification (CAC) is associated with numerous markers of subclinical atherosclerosis," Dr. Robert D. Abbott, of the University of Virginia Health System, Charlottesville, and colleagues write. "High levels of CAC also predict future morbidity and mortality from coronary heart disease (CHD), independent of many risk factors for cardiovascular events."

The researchers studied men between the ages of 84 and 96 years who were enrolled in the Honolulu Heart Program. The subjects received physical examinations including CAC determinations from 2003 to 2005, and were followed for up to 3 years for all-cause mortality (average 2.5 years). Included in the final sample were 267 men who were screened for CAC (43 with uncertain scores), 144 who were not screened, and 224 with valid CAC scores who were eligible for mortality follow-up.

For the 224 men with valid CAC scores, 95% had scores of 10 or greater, 82% had scores of 100 or greater, 58% had scores of 400 or greater, and 32% had scores of 1000 or greater. All subjects with uncertain scores had scores of 100 or greater. There were 17 deaths among the 224 men with valid CAC scores (28.0/1000 person-years). The average time to death was 1.3 years.

There were no deaths among men with CAC scores less than 10. CAC scores among the 17 subjects who died ranged from 84 to 6234. The risk of death increased consistently, from 13.2 to 48.6 per 1000 person-years as scores increased from 10 to 100 to scores of 1,000 or greater. The increased risk of death with higher CAC score was significant ($p = 0.001$).

"Screening for CAC could be important for developing strategies to improve longevity in elderly people, particularly at an age when associations between mortality and traditional risk factors are weak," the authors conclude.