

Diabetics' coronary calcium levels strongly linked to heart attack risk

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Notable levels of calcium buildup in coronary arteries can be strong predictors of heart attacks and strokes in people with diabetes and metabolic syndrome, according to a study led by UC Irvine's Heart Disease Prevention Program.

The researchers also found that individuals with diabetes or metabolic syndrome but no evidence of coronary calcium had cardiac-event risks as low as many without these conditions.

Supported by the National Institutes of Health, the multiethnic study of atherosclerosis involved 6,600 people ages 45 to 84. About 16 percent were diabetic (primarily type 2); another 25 percent had metabolic syndrome, a combination of disorders that can lead to cardiovascular disease and diabetes.

The researchers wanted to know whether information from a heart scan for coronary calcium or an ultrasound of the neck's [carotid artery](#) could supplement standard factors — high cholesterol, smoking, elevated blood pressure — in assessing a person's chance of [heart attack](#) or stroke.

"Our study points out that there's a wide range in risk for cardiovascular consequences seen in persons with [metabolic syndrome](#) and diabetes and that screening of coronary calcium by heart scans — and, to a lesser extent, carotid arteries by ultrasound — may be helpful in picking out those most vulnerable," said Nathan Wong, UCI professor of medicine, director of the [Heart Disease](#) Prevention Program and senior author of

the study.

"Our findings also suggest that individuals with significantly high levels of coronary calcium or carotid wall thickness should receive more aggressive monitoring and treatment for any associated risk factors," added co-author Dr. Shaista Malik, a UCI cardiologist.

Provided by University of California - Irvine

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