

Plaque on CT scan is strong predictor of heart disease, worse long-term outcomes

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The presence of plaque on an abdominal CT scan is a strong predictor of coronary artery disease and mortality, according to a Henry Ford Hospital study.

Researchers found that patients are nearly 60 percent at risk of having coronary artery disease when the CT scan showed very high levels of abdominal aortic calcium, commonly known as [plaque](#). High levels of the abdominal aortic calcium also increased their risk of dying, researchers say.

Conversely, researchers found that the lack of abdominal aortic calcium, or AAC, was associated with a low risk of coronary artery disease, a chronic, progressive form of heart disease that results from a buildup of plaque in the arteries found on the surface of the heart,.

The study is being presented Sunday, March 14 at the 59th annual American College of Cardiology Scientific Sessions in Atlanta.

"If you get a CT scan on your abdomen, there's probably a good chance that image can provide us with more information about the health of your heart arteries," says Mouaz Al-Mallah, M.D., director of Cardiac Imaging Research at Henry Ford and lead author of the study.

"This study clearly demonstrates that higher scores of abdominal aortic calcium are associated with higher rates of coronary artery disease and mortality."

Prior research has shown that coronary artery calcium found by computed [tomography](#) or CT is strongly associated with coronary artery disease and mortality. However, little is known about the risk associated between AAC and coronary artery disease.

Henry Ford researchers studied 367 patients who underwent an abdominal CT and [cardiac catheterization](#) within one year between January 2004 and May 2009. Patients had a 58 percent risk of having [coronary artery disease](#) with an AAC score over 1,000 compared to patients who had an 11 percent risk with an AAC score of zero. A high ACC score also was linked to a higher risk of [mortality](#).

"If you have heart disease and abdominal aortic calcifications, your chance of dying is higher than just having [heart disease](#) alone," Dr. Al-Mallah says.

Provided by Henry Ford Health System

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