

Family history is strong predictor of obstructive coronary artery disease using CCTA

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In the largest study of its kind to date using cardiac computed tomography angiography, people with a family history of early signs of coronary artery disease are at higher risk of developing obstructive coronary artery disease and plaque in their arteries, Henry Ford Hospital researchers say.

Researchers analyzed the data from more than 8,200 patients who underwent cardiac computed tomography angiography and found that those with a family history of [coronary artery](#) disease, or CAD, have a 28 percent chance of developing the disease themselves than those with no family history. Family history of CAD also was independently associated with an increased prevalence of plaque in the arteries.

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

"This is the first study to show that family history of premature coronary artery disease is a significant predictor of obstructive coronary artery disease using coronary computed tomography," says Mouaz Al-Mallah, M.D., director of [Cardiac Imaging](#) Research at Henry Ford and lead author of the study.

While family history is a well-known risk factor for premature coronary artery disease, Henry Ford researchers examined whether family history

was linked to obstructive coronary artery disease in patients who underwent cardiac computed tomography angiography, a [diagnostic imaging](#) tool that looks at the coronary arteries and evaluates the amount of blockage from plaque. For the study researchers analyzed data of patients using the Advanced Cardiovascular Imaging Consortium, which is funded by Blue Cross Blue Shield of Michigan.

"Based on past research and our findings, we believe cardiac computed tomography angiography would likely identify a high risk group of patients with advanced plaque buildup," Dr. Al-Mallah says.

Premature coronary artery disease occurs in people 45 and under. As a person ages, the coronary arteries are more likely to narrow and harden, leading to obstructive coronary artery disease, the leading cause of death in the United States for men and women. Every year, more than 500,000 Americans die from [coronary artery disease](#).

Provided by Henry Ford Health System

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