Coronary Artery Calcium Score

What is a coronary artery calcium score?
A coronary artery calcium score (CACS) is an atherosclerosis imaging test used to screen individuals at risk for coronary heart disease (CHD) who do not yet have symptoms. The test uses computed tomography (CT) to check for calcium buildup in the walls of the coronary arteries. This is a direct assessment of the disease itself and allows for a more granular and objective assessment of heart attack and stroke risk.

During the test, a CT scanner takes pictures of the entire heart and coronary arteries in thin slices. The amount of coronary artery calcium is quantified as a direct measure of the calcified atherosclerotic plaque burden. The higher the CACS, the higher the risk for future atherosclerotic events (e.g., heart attack and stroke). The test takes about 15 minutes. It does not require an IV or dye and is associated with low radiation exposure.

Who should get a coronary artery calcium score?
This test is best used in asymptomatic intermediate-risk patients (men 40 and older or women 45 or older with one or more additional risk factors aside from their age) to more accurately define their five- to 15-year absolute risk of non-fatal myocardial infarction or CHD as compared to a global risk assessment (Framingham Risk Score or Pooled Cohort Equations).

Consider referral when a patient presents with one or more of the following risk factors:

- Diabetes
- Current or former smoker
- Family history of heart disease
- Hypercholesterolemia
- Low HDL cholesterol
- Elevated triglycerides
- Hypertension
- Obesity

A word from the director
We are pleased to share that the OHSU Knight Cardiovascular Institute is offering the coronary artery calcium score imaging test. Because arterial calcium buildup is an indicator of nascent coronary artery disease, a person's coronary artery calcium score can help determine what steps should be taken to minimize risk of a future stroke or heart attack. For patients, the test is painless, quick and noninvasive.

If you have any questions or would like to consult with our team, please contact us at 800-245-6478.

Sincerely,
Michael Shapiro, D.O., FACC, FSCCT
Director, Cardiac MRI and CT
What do the results mean?

A coronary calcium score of zero indicates the absence of calcified atherosclerotic plaque in the coronary arteries and is associated with an excellent 5-15 year prognosis. However, a CACS of zero does NOT eliminate the need for therapeutic lifestyle change therapy in patients with other risk factors. Prudent therapy in such patients would dictate a prolonged trial of diet and exercise before considering medical therapy for an elevated LDL cholesterol level.

A score of 100 or greater is associated with an increased future CHD risk and should be viewed as an indicator for the need for more intensive risk factor modification. Achievement and maintenance of lipid goals and careful attention to management of other CHD risk factors is warranted.

The American Society of Echocardiography recommends stress echocardiography as an acceptable and reasonable test to be performed in patients with a CACS of 400 or greater.

Please note this test is not generally covered by insurance, but costs an affordable $75.