

CT Cardiac Calcium Scoring

What is CT Cardiac Calcium Scoring?

The coronary arteries are the vessels that supply oxygen-rich blood to the heart. Plaque, which is made of fat, calcium and other substances can build up and narrow or close the arteries which may indicate atherosclerosis or coronary artery disease (CAD). To detect this build-up, a physician may order computed tomography - **CT Cardiac Calcium Scoring**, which is a non-invasive diagnostic medical imaging test that produces multiple images or pictures of the inside of the body. The information obtained can help evaluate whether someone is at increased risk for heart attack.

What is a Calcium Score?

Because calcium is a marker of CAD, the amount of calcium detected on a cardiac CT scan is a helpful prognostic tool. The findings on Cardiac CT are expressed as a calcium score, which is calculated based on the amount of plaque observed in the CT scan. It may be converted to a percentile rank based on age and gender. The likelihood of having heart disease or a heart attack correlates with the calcium score. The lower the calcium score and percentile rank, the less likely someone is to have a cardiac event compared to other men or women of the same age.

Who should get a Calcium Score Test?

Men age 45 or older and women age 55 or older, with no history of CAD, and with one or more risk factors for heart disease, including:

- High blood cholesterol levels
- Low HDL cholesterol (good cholesterol)
- Family history of heart attacks
- Type 2 Diabetes
- High blood pressure
- Cigarette smoking
- Overweight or obese
- Physical inactivity
- Family history of heart disease at age 55 or younger in men and 65 or younger in women
- Women age 40 or older who are diagnosed with a chronic inflammatory condition

How should I prepare for a CT heart scan?

- usual medications should be continued
- caffeine and smoking should be avoided four hours prior to the exam
- comfortable, loose-fitting clothing should be worn
- metal objects, including jewelry, eyeglasses, dentures, removable dental work, hearing aids, hairpins, underwire bras, piercings should be removed
- women should always inform their doctor and CT technologist if there is any possibility of pregnancy

How is the procedure performed?

1. The procedure is performed by a CT technologist with the assistance of a radiologist.
2. A gown is worn if there is any metal in the clothing. The technologist then explains the procedure to the patient.
3. The patient is asked to lie on their back on the CT table and EKG electrodes are placed on the chest to monitor heart rate.
4. The technologist watches the procedure through a window and can answer questions.
5. The CT table moves in very small increments every few seconds and takes pictures.
6. The patient is asked to hold their breath for 20-30 seconds, in order to be perfectly still.
7. The actual scan time takes approximately 20-30 seconds and the entire procedure can take 10-15 minutes.

What does Calcium Scoring show?

ZERO: No plaque. Risk of heart attack is low.

1-10: Small amount of plaque. Less than 10 percent chance of having heart disease; risk of heart attack low.

11-100: Some plaque. Mild heart disease and moderate chance of heart attack. Doctor may recommend other treatment in addition to lifestyle changes.

101-400: Moderate amount of plaque. Indicates heart disease; plaque may be blocking an artery; chance of having a heart attack is moderate to high; more testing usually ordered and treatment started.

Over 400: Large amount of plaque: more than 90 percent chance that plaque is blocking an artery; chance of heart attack high; more testing usually ordered and treatment started.

For more information, please contact the Diagnostic Imaging Department at Abbeville General: 337-898-6543.