

Computerised Tomography (CT) coronary artery calcium scoring is a diagnostic imaging test that allows us to look at the heart and detect and measure calcium-containing plaques in the arteries. You may need a CT coronary artery calcium scoring scan if your doctor wants to identify your risk of coronary artery disease before you have signs or symptoms.

What is a CT Coronary Artery Calcium Score?

A CT coronary artery calcium score is performed using a CT scanner and involves the use of x-rays to create detailed cross-sectional 2D and 3D images of the heart and its blood vessels. These images are viewed and interpreted by specialist heart and lung radiology consultants to gain a better understanding of your risk of heart disease. This type of scan is often performed alongside a CT Coronary Angiogram which looks for blockages or narrowing of the coronary arteries.

Why is a CT Coronary Artery Calcium Score scan performed?

Coronary artery plaque is made up of fats, cholesterol, calcium and other substances. Plaques can develop gradually over time and are often present long before there are any signs or symptoms of disease such as chest pain. However, these deposits can eventually restrict the flow of oxygen-rich blood to the heart muscle. They may also produce blood clots which can cause a heart attack.

A CT coronary artery calcium score is used to create detailed images of plaque deposits in the blood vessels. These images are then analysed using specialise software to create a score, which reflect the total area and density of calcium deposits. Your doctor will then use this score as a one method of assessing your risk of developing a heart attack in the future.

Quite often, this scan will be performed at the same time as another CT test called a CT Coronary Angiogram. This scan is a specialised test that uses an x-ray dye to provide detailed pictures of the coronary arteries to look of narrowing or blockages.

What does a CT Coronary Artery Calcium Score involve?

A CT calcium score scan is a non-invasive and painless imaging test.

Prior to the scan, you will be asked to change from your own clothing into a hospital gown and remove all jewellery. You will then be asked to lie down on your back on a comfortable CT bed.

During the scan, you will need to lie very still. The table will move slowly through the scanner whilst the inside of the scanner rotates and take a series of x-ray pictures. The table will move in and out of the scanner a few times before the scan is finished. Your head will be outside the scanner the entire time so you do not need to worry if you are claustrophobic.

To help us achieve clear pictures, we will ask you to hold your breath for a short period of time.

After the scan, you will then be able to return to normal daily activities.

Is a CT Coronary Artery Calcium Scoring scan safe?

During a CT calcium scoring scan, you will be briefly exposed to a small and highly focussed amount of radiation in the form of x-rays. For this reason, we would typically not use CT for pregnant patients or for young children unless necessary.

Our state-of-the-art scanner uses lower dose than many other CT scanners in use. In fact, the doses used for CT scanning in general are so low that the risk of developing side effects from the radiation is too small to be reliably measured. Nevertheless, our skilled staff are trained to make sure that radiation is only used when there is a clear medical benefit and that all doses are kept as low as reasonable possible.

When will I get my results?

The images from your scan are ready for the radiologist to view soon after your scan. They will then write a report within 48 hours which will be sent to your doctor so they can discuss the result of the test with you.