

What is a CT Calcium Score?

Your doctor has referred you for a CT Calcium Score or a Coronary Artery Calcium Score which is a measurement of the amount of calcium in the walls of the arteries that supply the heart muscle. It is measured by taking a special computed tomography (CT) scan of the heart. The scan shows the amount of hardening of the artery wall (the disease that causes this hardening is called atherosclerosis). The results of the scan make it possible to estimate the risk of a heart attack or stroke in the next 5–10 years. The more calcium (and therefore the more atherosclerosis) there is, the higher the risk of a heart attack or stroke.



A high calcium score does not mean that you will have a heart attack, only that there is a greater likelihood of having one than someone with a low score. Even a person with a score of zero could have a heart attack.

Your doctor will use the CT Calcium Score to decide whether you are at low, normal or high risk and, if necessary, guide you to reduce your risk. This may be by changes in diet, exercise, controlling blood pressure and diabetes, stopping smoking, and reducing cholesterol in the blood.

How long will the procedure take?



The CT Calcium Score scan takes approximately 5 minutes but you can expect to be in the department for a total of 20–45 minutes.

Is there any special preparation?

On the day of the CT scan of your heart, you will be advised not to smoke or drink coffee, tea, cola drinks, herbal teas or other caffeine-containing drinks. No other preparation is needed.

It is recommended that you do not wear any clothes with metal around your chest, e.g. bra. You may be asked to change into a gown to improve the images.

What do I need to bring with me?

On the day of your appointment, please ensure you bring:

- Your referral form (if you have it)
- All previous relevant scans or x-rays
- Medicare and healthcare cards (e.g. DVA or healthcare concession card)

What happens during the procedure?

Prior to the CT scan, our clinical staff (medical imaging specialist, radiographer or nurse) will discuss the examination with you, and you will have the opportunity to ask questions.

You will be asked to change into a gown before being brought to the CT room where you will lie on the CT table. ECG leads will be placed onto your chest to monitor your heart rhythm.

The CT table will move in and out multiple times and give you breathing instructions before each scan. The actual CT scan is very quick, but it requires you to hold your breath between 3 and 30 seconds, depending on the individual scanner. Once the scan is complete, you will be able to dress.

Are there any after effects from the scan?

There are no after effects. You will be able to carry on your normal day immediately after the scan.

Rarely, skin irritation from the patches used to connect the ECG leads can occur.

What happens after the procedure?

The radiographer will check that the scan has been successfully completed, and then once you are dressed and have gathered your belongings you may return to the reception desk.

What are the benefits?

The benefit is gaining a better understanding of the relative risk for you of having a heart attack or stroke in the future, and using that information to decide which strategies you should use to reduce your risk if the risk is found to be high.

The calcium score is of no benefit to someone who has already had a heart attack, coronary bypass surgery or a coronary artery stent. These events already indicate a high risk. A calcium score cannot be used to see if any treatment is working or not.

Your doctor may decide that a second CT Calcium Score scan after a few years might be helpful to compare the results with the previous scan.

Coronary calcium scores are most informative for women aged between 35 and 70 years and men aged between 40 and 60 years in terms of providing information about cardiovascular risk, or the risk of a heart attack or stroke. Scores in patients outside these age ranges do not have any value in assessing increased risk.

Are there any risks?

In referring you for this scan, your doctor is of the opinion that the benefits of this scan for you are greater than the risks. There are some risks associated with a CT Calcium Score. A score of zero does not exclude the possibility of myocardial infarction in the future.

CT uses ionising radiation to produce the images. The radiation doses associated with performing a CT Calcium Score are low, and are kept as low as possible by the CT radiographer. Therefore, the associated risks are low.

A high calcium score may affect your future health risk assessment for life and other insurance. If this is important to you, it should be discussed with the doctor who requested the scan, before the scan is performed.

Please inform the staff before the procedure if you are, or suspect that you may be, pregnant.

When do I get the results?

The Medical Imaging Specialist will send a report outlining the Calcium Score results to your referring doctor. It is important that you make a follow-up appointment with your referring doctor, to discuss your results.

I still have questions, who can I ask?

Medical information can be complex, and you may receive information that you do not fully understand. It is important for you to consider the risks and outcomes of the procedure as well as your personal needs before making a decision to undergo the procedure.

If you have read this online information and are still unsure if this is the correct procedure for you; before making a booking, you should discuss your questions or concerns with your referring doctor in the first instance. Your regular GP and/ or your family may also be a useful resource. Your referring doctor can answer questions about the risks and benefits of not having the procedure and other options for treatment.

If you have questions before your appointment about what is involved on the day, our staff would be happy to assist. Please contact the Lumus Imaging centre where you have made your appointment.