

Cardiac CT

Heart examination

Introduction

You have received an appointment for a CT examination of the heart. This leaflet informs you about the examination and the preparations necessary for it to proceed smoothly. The examination takes place in the Radiology Department.

A Cardiac CT is an examination of the heart and its blood vessels with the aid of a CT scan. A CT (computerised tomography) is a piece of equipment whose X-ray beam moves around the body to take cross-sectional images from various positions. A computer then processes all the collected information to produce a series of images (cross sectional), which are further processed in all sorts of ways. The CT is shaped like a large, open ring.

Preparation

- For 12 hours prior to the examination, you must not drink any coffee, tea, coke or any drinks that contain caffeine (e.g. energy drinks).
- On the day of the examination, you may have a light breakfast, albeit without the drinks stated above.
- You may take any of your normal medications with a sip of water.
- For 12 hours prior to the examination, you must not smoke due to nicotine's effect on your heart rhythm.
- It is important for the examination that you have a slow heart rate. That is why it is important to avoid any strenuous activity before undergoing the examination. If necessary, the

cardiologist will prescribe you medication for this.

- During the examination, you must hold your breath for a while. Is it difficult for you to hold your breath for 20 seconds? If so, try practising this at home, but without forcing it.

Report at the scheduled time. After approximately 15-30 minutes, you will be called in for the CT scan. Stay as calm as possible while you are waiting, so that you don't raise your heart rate. An IV will be inserted into the crook of your elbow; this IV will be used to administer the contrast agent.

Important

Pregnancy: in the event that you are pregnant, or think you could be pregnant, report this to your treating doctor or the radiodiagnostic lab technician in advance. In consultation with the doctor, the decision will be made as to whether to proceed with the examination or to postpone it.

Medication

- If you take anti-inflammatory painkillers, such as ibuprofen or diclofenac, do not use these on the day of the examination.
- If you take ACE inhibitors, such as perindopril, enalapril, lisinopril or ramipril, do not use these on the day of the examination.

Examination

A Cardiac CT is performed to obtain an image of the heart. This takes place in two ways:

- A scan without a contrast agent to assess whether arteriosclerosis (calcium) is present in the coronary arteries (CT Coronary Calcium Scan).
- A scan with iodised contrast agent to show any possible abnormalities in the heart and/or blood vessels (Coronary CT Angiography).

In general, the scan without the contrast agent is carried out first. Whether one or both scans are carried out does not reveal anything about the outcome of the examination. For the examination, you will need to undress down to your waist: you may keep on a (loose fitting) shirt without metal. In the CT room, you lie down on the examining table. Three adhesive electrodes will be stuck to your chest to monitor your heart rate during the examination, and your blood pressure will be measured. During the examination, you will slowly slide through the scan opening several times. Stay as still as possible. You will be instructed on how to breathe via the intercom (inhale - keep breathing). If the doctor also decides to carry out the scan with the contrast agent, it will proceed as follows:

Your heart rate and blood pressure will be checked again and, if necessary, you will be given additional medication if your heart rate is not slow enough. Depending on your blood pressure, just before the scan, you will also receive a tablet of nitroglycerin, which opens up the blood vessels. This medication can temporarily cause a headache. When the contrast agent is administered, you may have a warm sensation, an unpleasant taste in your mouth and you may feel that you need to urinate. These symptoms will soon disappear. Once the examination is over, the lab technician will remove the electrodes from your chest.

Contrast agent (iodised)

Iodised contrast agents rarely cause side effects. Blood tests are carried out to investigate whether the kidneys are functioning sufficiently to administer contrast. If necessary, your treating doctor will take measures so that the CT examination can go ahead. If you have had an allergic reaction in the past due to the administration of a contrast agent, you must report this to the radiodiagnostic lab technician before the examination is carried out.

Duration

The waiting time/preparation for the examination is 15 to 20 minutes. The examination itself takes 20 to 30 minutes (+ 10 minutes after the examination).

After the examination

If you were injected with a contrast agent, you will need to wait a further 10 minutes in the waiting room. After that, the lab technician will remove the IV from your arm. At which point, you can eat and drink again like normal.

When should you contact us?

If your complaints worsen or if you get anxious after returning home, you may contact the on-duty cardiologist via reception on telephone number +31(0)20 - 755 7000. Outside office hours (4.00 - 10.00 p.m.) you may contact the A&E on telephone number +31(0)20 - 456 2000. After 10.00 p.m., reception will put you through to the Weekend, Evening/Night-Shift Supervisor on telephone number +31(0)20 -755 7000.

The results

The radiologist and cardiologist will assess the examination and send a report of the examination to your cardiologist, who will discuss the results with you during your next appointment.