

# Having a cardiac (heart) CT scan (CTCA)

## Introduction

This leaflet gives information on having a cardiac CT / computerised tomography coronary angiography (CTCA) scan, it will explain how to prepare for the scan, what will happen during the scan and aftercare instructions. You will be given more information by the doctors involved in your care; please speak to a member of staff if you have any questions at any point.

## What is a cardiac CT scan?

You are having a CT scan because a specialist hospital doctor has requested this examination based on your symptoms or the results of other tests you may have had. A CT scan uses X-rays and a computer to create detailed images of the inside of your body (rather like slices in a loaf of bread). A CTCA scan takes detailed pictures of the heart and the coronary arteries (blood vessels supplying the heart). It allows any narrowing or blockage in these blood vessels to be seen.

## What are the benefits of having this scan?

This scan creates detailed pictures of your heart which can help your specialist to make a diagnosis or assess any health problems. The information from the scan can help your specialist to recommend the best treatments for you. There are many other tests which investigate how the heart is functioning but only the CTCA scan can give us detailed information about the structure of your heart.

## How should I prepare for the scan?

You may eat and drink as normal before the scan and you should take your medication as prescribed. Please make sure to bring a list of any medications you are currently taking and if you are asthmatic and use an inhaler please bring it to the appointment.

If you have diabetes and take a medication called Metformin it is important to contact the Radiology (CT) Department before your scan for instructions about this.

## How is the scan carried out?

When you are taken into the room for your scan the radiographer will ask you to lie down on a special bed attached to the scanner. They will place some sticky pads called electrodes on to your chest so the activity of your heart can be monitored during the scan. It is important to monitor your heart activity as to obtain the highest quality images we need to trigger the scanner at a certain point during your heart beat. The bed will move through the scanner in

order for the pictures to be taken. The scanner consists of a large ring containing an X-ray tube (looks similar to a large polo mint) which your bed will move through, the scan itself is painless.

Before the scan a member of staff will insert a cannula (drip) into your hand so that we are able to give you an injection of X-ray contrast (dye) which helps us to see your heart and blood vessels clearly on the scan. The dye is usually safe, but please tell the staff if you have any allergies. The injection may feel sore in your hand but will be brief lasting a couple of minutes at the most. This dye will pass through your system.

When you arrive we will check your heart rate and if it is faster than the ideal rate we may give you a medication to help slow it down usually a drug known as a beta blocker. This is important as it can be difficult to get clear pictures of your heart if it is beating too quickly. This medication may be a tablet or an injection. It is important to avoid driving or cycling to your appointment as this medicine can make you feel drowsy and it is a good idea to ask someone to come with you to the appointment. The medication can take up to an hour to slow your heart down to the correct rate and we will perform the scan once it is at the correct rate. You are unlikely to notice any side-effects from this medication but it is important to let us know if you have asthma.

You may also need to be given another medication which is in the form of a spray or tablet under the tongue just before the scan. This medication opens up the arteries in the heart making it easier to see and assess them during the scan. Some people experience a slight headache or some dizziness after taking this.

Breathing can cause the scan images to be blurred. For this reason we will ask you to hold your breath at different points during the scan, this will be for a maximum of 15 seconds. We will practice this with you before the scan so we can check that you are comfortable and know what to expect.

### How long will it take?

The scan itself is usually brief, lasting around 15 minutes. We need to prepare you for the scan and may need to give you give medications as described above so please be prepared to stay for over an hour if needed.

### Are there any risks with this test?

The CT scanner uses ionising radiation (X-rays) to produce the pictures. The amount of radiation used in the CTCA scan is small and is kept to the minimum possible. We are all exposed to natural background radiation from the atmosphere and the ground, this test is equivalent to four years' worth of this background radiation. Radiation can cause damage to cells which may after many years/decades become cancerous. It is estimated that by having this scan your natural lifetime risk of developing cancer may increase slightly from 33% to 33.04%. We believe the benefits of the scan outweigh the risks; however, we aim to ensure all patients fully understand the risks and benefits. If you have any questions, please let us know.

It is important to let us know if you are pregnant as you may be unable to have the scan in this case.

### What happens after the scan?

After the scan you should be able to return to your daily activities and can eat and drink as normal.

### Results

The results of your scan will be sent to the doctor who requested this test and they will inform you at your next appointment or via a letter/phone call.

### Further information

If you have any further questions before the scan you can contact your GP, the specialist who sent you for the scan or the X-ray department. We are also happy to answer any questions on the day of your scan, please let us know if you have any questions when you arrive. Further information can be found at [www.rcr.ac.uk/patients](http://www.rcr.ac.uk/patients).

For further information about the Trust, visit our website [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk).

This document can be made available in other languages and formats upon request.

Radiology Department, May 2018

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