

## CT Coronary Angiogram (CTCA)

### WHAT IS A CT CORONARY ANGIOGRAM?

**A CT coronary angiogram (CTCA) is an imaging test to look at the arteries that supply your heart muscle with blood.** Unlike a traditional coronary angiogram, CT angiograms don't use a catheter threaded through your blood vessels to your heart. Instead, the CT scanner uses a combination of x-rays and high-powered computers to obtain cross-sectional images of your heart and heart vessels. These scans are becoming a common option for people with a variety of heart conditions. Early stages of coronary artery narrowing can be detected before any symptoms develop.

### REASONS FOR THE PROCEDURE:

- A CT coronary angiogram is primarily used to check for narrowed arteries in your heart (coronary artery disease) that could explain chest pain or breathlessness, and which could put you at risk of a heart attack.
- To identify early build up of plaque in the coronary arteries before the development of arterial narrowing severe enough to give you symptoms.
- To evaluate bypass grafts after coronary artery bypass surgery.
- To check coronary arteries are normal before other types of cardiac surgery e.g. valve replacement operations.
- To evaluate congenital abnormalities of the coronary arteries or great vessels.
- Pulmonary vein assessment prior to electrophysiology therapy.

### BEFORE THE PROCEDURE:

- You will be asked to have no food or fluids for 4 hours before the scan, and no products containing caffeine for 24 hours prior to the scan (i.e. coffee, tea, chocolate and energy drinks)
- You will be asked to complete a safety questionnaire to identify any allergies to foods, drugs and iodine and, in certain situations, you may need a blood test to assess kidney function prior to the scan.
- If you have a pacemaker or defibrillator, you will need to inform staff when booking your appointment. We need to organize a pacemaker technician at least one week in advance, to adjust your pacemaker of the examination.
- Please inform us if you are taking any medications that are contraindicated with using nitrates.
- You can drive yourself to the appointment, and you'll be able to drive after the scan.

### DURING THE PROCEDURE:

- You may have to change clothing above the waist.
- Because your heart is constantly in motion while it beats, your doctor may give you some medication called a beta blocker, which will slow your heart rate. This will improve the image quality.
- An intravenous (IV) line will be inserted into a vein in your arm to inject the contrast (x-ray dye) that will make your coronary arteries visible on the CT images.
- Although the actual scanning portion of the test takes less than 15 seconds, the whole process take about 10-15 minutes.
- Electrodes will be placed on your chest to record your heart rate throughout the scan.
- When you're ready to be scanned, you'll lie on the scanner table that slides through the CT machine while the x-rays are taken and the contrast is injected.
- It's important to stay as still as possible, and you will be given careful, detailed instructions to hold your breath during the scan.

### AFTER THE PROCEDURE:

- After your CT coronary angiogram is completed you should be able to drive yourself home or to work.
- The images and a report on the results will be sent to your referring doctor