



Dear \_\_\_\_\_

Your coronary CT scan appointment has been made for \_\_\_\_\_

Please arrive at St George's Radiology, 137 Leinster Road at \_\_\_\_\_

## **Preparation Instructions**

**Please read the enclosed check sheet carefully and call Heart Vision if you answer yes to any of the questions or if you are unsure.**

- Please remember to have a blood test to check your kidney function prior to the scan.
- You must have no alcohol or caffeine for 4 hours before your appointment and you should not smoke for at least 2 hours before your appointment. Note that this includes coffee, tea, coca cola, chocolate and other drinks with added caffeine.
- Please do not use any erection medications (Cialis, Viagra or Levitra) in the 72 hours prior to your appointment. Take your other medications as you normally would.
- If you are asthmatic please bring your inhalers with you.
- Please fill in and bring the enclosed information and consent form and health questionnaire with you.
- Please allow up to 2 hours for your appointment.

Please feel free to contact us if you have any questions with regard to your booking, preparation or the CT scan itself.

Yours sincerely

Heart Vision Appointments

Phone: 03 355 6073 or 0800 TO XRAY



## Check list for Coronary CT Angiography scans

Please read this sheet carefully and phone our appointments team on 03 355 6073 or 0800 TO XRAY if you answer yes to any of the questions or are unsure of what to answer.

### Medical conditions that may affect a CT heart scan

Certain medical conditions may affect our ability to perform and interpret your CT scan. Please advise us if you have/have had:

- Atrial fibrillation (an irregular heart rhythm).
- A pacemaker or implanted defibrillator. We will need to know what kind it is including how many leads it has.
- Coronary artery stents or previous heart surgery including valve replacements or coronary artery bypass grafts.
- Previous reactions/allergies to x-ray contrast (dye) injections.
- Kidney disease or diabetes.
- Your weight is >100kg.

### Preparing you for your scan - beta blockers

To steady your heart rate we may give you a tablet called a beta-blocker about 1 hour before your scan. You should not take beta blockers if:

- You have asthma  
Occasional asthma is usually not a problem. However, if you use an inhaler every day, or have been admitted to hospital with an attack, you should not take beta-blockers. Please check with your own doctor.
- You have heart block (a particular type of problem with heart rhythm)

If you have asthma, and your doctor advises against taking a beta blocker, or if you have heart block, or if you are unsure, please call Heart Vision at St George's Radiology.

If you already take a beta-blocker you may or may not need to take an additional tablet. Common beta-blockers include:

- Acebutolol (ACB)
- Atenolol (Loten)
- Carvedilol (Dilatrend)
- Celiprolol (Celol)
- Labetalol (Hybloc)
- Metoprolol (Betaloc, Lopresser)
- Nadolol (Apo-Nadolol)
- Pindolol (Pinodol)
- Propranolol (Cardinol)
- Sotalol (Pacific)
- Timolol (Apo-Timolol)

## **PATIENT INFORMATION AND CONSENT FOR CORONARY CT ANGIOGRAPHY**

### **Introduction**

CT scanning of your coronary arteries is a well established technique for looking at the coronary arteries. [Heart Vision](#) and [Christchurch Radiology Group](#) have extensive experience in performing coronary CT angiography with one of the most advanced CT scanners currently available.

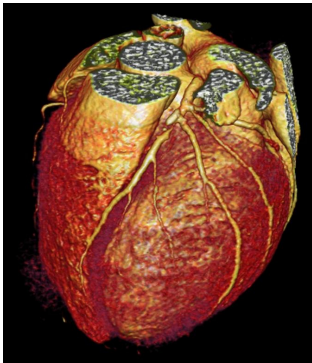


Figure 1: CT scan of the heart

### **Why a CT Scan of the Coronaries?**

The main advantage of a CT scan is that you can go home shortly after the procedure. It is very quick and has very few potential complications.

Unlike a coronary angiogram, which requires admission to hospital for a needle to be inserted into an artery (high pressure blood vessel) in your groin, a CT scan simply involves a needle in a vein in your elbow (similar to a blood test). The needle is removed leaving a flexible plastic tube (IV line) through which contrast (x-ray dye) is injected to show the coronary arteries. This is removed before you head home.

### **What to Expect**

The procedure is very quick; the actual time in the scanner room is about 10-20 minutes. We may however give you medication to slow and steady your heart rate which can take an hour or more to work so please allow plenty of time for your appointment (up to 2 hours).

The scan itself is over in approximately 10-20seconds. You will need to hold your breath for this, so please let us know if you have difficulties breathing or lying flat for any length of time.

A puff of GTN (Nitrolingual spray) is given under the tongue just before the scan to relax your coronary arteries, helping us to obtain the best images possible. If you are taking Cialis, Viagra or Levitra it is important that you stop taking these for the 72hours prior to the scan.

You will have ECG (electrocardiogram) leads attached to your chest, which give important information to the scanner to help form the images of your heart.

During the scan you will feel a warm sensation throughout your body. This is the contrast (dye) flowing through your veins. This may be accompanied by a slightly metallic smell or taste. This is quite normal. The contrast washes out through your kidneys.



Figure 2: CT Scanner

The scanner is shaped like a bagel/donut. The scanner is much more open than an MRI scanner, and a lot less noisy! If you tend to get claustrophobic (fear of enclosed spaces), let us know before you attend. It often helps people to come in and see the scanner beforehand.



## What are the Risks?

As with any medical procedure, there are some small risks associated with the scan:

- **Contrast:** Very rarely people experience an allergic reaction to contrast (dye). This usually manifests as an itchy rash, which settles down by itself.
  - Asthmatic patients may experience worsening of their asthma shortly after the injection. If you are taking any inhalers for your asthma, you should bring these with you.
  - Please let us know if you have any kidney problems. Your doctor will also check your kidneys with a blood test prior to the scan.
- **Radiation:** x-rays are used during the scan. The amount of radiation used during the scan varies but is around 2-3 times the amount that you naturally receive in a year from background natural sources such as cosmic rays and from rocks in the Earth's crust. To put this in perspective, the lifetime risk of developing cancer due to the x-rays involved in the scan is around 1:4000 compared with a background risk of developing cancer of 1:300 per year.

Your doctor will have considered the risk of this versus the risk of dying from a heart attack before advising you to have this scan. Heart Vision continually monitors and audits radiation doses. All dose reduction techniques and technologies available are used.

If you want more information on this, a useful website is [Australian Radiation Protection and Nuclear Safety Agency](http://www.arpana.gov.au) (www.arpana.gov.au). If you are still concerned, please contact CRG and ask to speak to one of the radiologists. The scanner is designed to rigorous standards to minimize the amount of radiation involved in the test.

- **Bruising at the injection site:** Very rarely the contrast (dye) goes into the tissues under the skin in your arm rather than the vein. This can cause bruising and swelling which may require ice packs. The injector used is designed to detect this happening and stop immediately if it does, also a member of staff is with you whilst the injection is running to keep an eye on you.
- **Incidental findings:** Because the CT scanner takes such detailed images there is a chance that we will find another abnormality in the part of your chest which we have scanned. This is usually a 'pulmonary nodule' (a spot on the lung), which almost always turns out to be benign. Very occasionally however, a nodule might be a very small lung cancer in its early stages of growth. For this reason, if we find one of these in your lungs, we will refer you to a respiratory specialist to plan further investigation.

If caught early, lung cancer has more chance of being successfully treated. In fact there is a great deal of interest in using CT scanning to screen for lung cancer with several large trials currently underway in North America and Europe.



## Summary of what you need to do

- If you are taking Cialis, Viagra or Levitra, do not take this medication in the 72 hours prior to your scan.
- Take your other medications as you normally would.
- Please do not have any alcohol or caffeine for 4 hours before your appointment (note that this includes coffee, cola, tea, chocolate and drinks with added caffeine).
- Please do not smoke for 2 hours before your appointment.
- Have a blood test to check your kidney function prior to the scan.
- If you are asthmatic, bring your inhalers with you.
- Let us know if you have had a previous reaction to contrast (x-ray dye).

### Remember you can expect:

- to spend up to 2 hours at your appointment.
- a needle (IV line) in the vein in your elbow, and a warm sensation during the injection.
- ECG leads to be stuck to your chest.
- a spray of GTN under your tongue.
- a 15second breath hold and to lie flat for about 5-10minutes.

### After the scan:

- The IV line will be removed from your elbow.
- Drink plenty of fluids to help flush the contrast (dye) through your kidneys.
- Cialis, Viagra and Levitra can be restarted an hour after the scan.
- The results will take around one to two weeks. This reflects the massive amount of information obtained on the scan, which the radiologist and cardiologist have to interpret.
- If you have any questions about the test there are radiographers and radiologists on hand, during the scan. They will be able to address any of your concerns.
- Your doctor and/or cardiologist will be able to advise on the results and any further treatment.

Please sign below if you are happy to proceed with the scan and bring this form with you:

I, \_\_\_\_\_ understand the above and give my consent to undergo CT scanning of the coronary arteries.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## PATIENT HEALTH QUESTIONNAIRE

Name: \_\_\_\_\_

Age: \_\_\_\_\_

Weight: \_\_\_\_\_ kg                      Height: \_\_\_\_\_ cm

**YES    NO**

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Do you have a history of heart disease? |
| <input type="checkbox"/> | <input type="checkbox"/> | Heart attack                            |
| <input type="checkbox"/> | <input type="checkbox"/> | Heart failure                           |
| <input type="checkbox"/> | <input type="checkbox"/> | Stent                                   |
| <input type="checkbox"/> | <input type="checkbox"/> | Coronary bypass                         |
| <input type="checkbox"/> | <input type="checkbox"/> | Valve problems                          |

### Other Medical History

**YES    NO**

- |                          |                          |                                 |
|--------------------------|--------------------------|---------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Irregular Heart Rhythm          |
| <input type="checkbox"/> | <input type="checkbox"/> | History of Smoking              |
| <input type="checkbox"/> | <input type="checkbox"/> | High Blood Pressure             |
| <input type="checkbox"/> | <input type="checkbox"/> | Other Lung Problems             |
| <input type="checkbox"/> | <input type="checkbox"/> | Pacemaker or Defibrillator      |
| <input type="checkbox"/> | <input type="checkbox"/> | Asthma                          |
| <input type="checkbox"/> | <input type="checkbox"/> | Family History of Heart Attacks |

**YES    NO**

- |                          |                          |                                      |
|--------------------------|--------------------------|--------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Kidney Problems                      |
| <input type="checkbox"/> | <input type="checkbox"/> | Diabetes                             |
| <input type="checkbox"/> | <input type="checkbox"/> | Previous IV Contrast Injection       |
| <input type="checkbox"/> | <input type="checkbox"/> | If yes, any reaction                 |
| <input type="checkbox"/> | <input type="checkbox"/> | Disease in Arteries other than Heart |
| <input type="checkbox"/> | <input type="checkbox"/> | History of Allergies                 |

**Please list your medications and any operations or other conditions here:**

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