

The Royal Liverpool and  
Broadgreen University Hospitals

NHS Trust



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Together*

Patient Information

## **PET- CT Heart scan**

Imaging Directorate

PIF 1538 V1

## **What is a PET-CT Heart scan?**

PET stands for Positron Emission Tomography – CT stands for Computerised Tomography. PET-CT is the combination of two imaging techniques in one examination – a PET scan in conjunction with a CT scan. The PET scan provides unique functional information of the muscle of your heart. A PET-CT scan is performed following the injection of a small amount of radioactive solution into a vein in your arm.

You will also have a scan using a special camera called a Gamma Camera. This will show the blood supply to your heart muscle.

## **What are the benefits of having a PET-CT Heart scan?**

This scan will provide your doctor with important information about your heart muscle. This examination is important in the accurate diagnosis of your condition so that you can receive the correct treatment

## **What are the risks of this procedure?**

People sometimes worry about tests or treatments which involve the use of radioactive materials. We tend to forget that we are all exposed to background radiation every day.

Please remember the amount of extra radiation from your test is small. The benefit to you of providing your doctor with useful information about your health far outweighs any risk related to this radiation.

## **Are there any alternative diagnostic tests available?**

While there may be alternative diagnostic tests, your doctor has considered your particular case and has decided that this is the most appropriate test at this time.

## **What will happen if I decide not to have this test?**

It is your decision whether or not to proceed with the scan. However if you do not your doctor may not be able to find out what is wrong and may not be able to plan the appropriate treatment for you.

## **Female patients**

Where possible, we try to avoid using radioactive materials in patients who are, or may be pregnant. Therefore, please contact the department on Tel: 0151 706 4464 if you are:

- pregnant
- breast-feeding
- you think you could be pregnant
- your appointment is more than ten days from the start of your last period.

**If you are worried and have any questions, please speak to your doctor or a member of their team.**

## **Getting ready for your PET-CT Heart scan**

- Please do not undertake any vigorous exercise or hard physical work for 24 hours prior to your appointment.
- Do not have anything to eat (even sweets or chewing gum) for six hours before your scan.
- Do not drink anything but water for six hours before your scan. If you normally drink plenty of fluids replace them with water. If you do not normally drink very much just increase your intake a moderate amount.
- You may take any necessary medications if they can be taken with water and can be taken on an empty stomach.

- Do not take any over the counter medications that contain sugar, such as cough syrup.
- Please wear a front opening shirt or blouse. Ladies please bring a fleece or a cardigan.
- It would be advisable for you to attend the hospital wearing as little jewellery as possible as this will have to be removed before the scan.

**If you have diabetes, please contact the department on Tel: 0151 706 4464 as soon as you receive this letter.**

## **Your PET-CT Heart scan**

This test is in two parts

### **Part One**

- A radioactive liquid will be given to you by an injection into a vein in your arm.
- Approximately one hour later the Gamma camera will take pictures.

### **Part Two**

- You will be asked to change into a hospital gown.
- A plastic tube (called a venflon) will be put into a vein in your arm.
- Your blood sugar levels will be checked.
- You will be given a sweet drink that contains glucose.
- After an hour we will test your blood sugar levels again.

- If there has been a rise in your blood sugar level we may give you an injection of insulin to bring your blood sugar level down.
- A radioactive solution will be injected into the venflon and you will be asked to rest quietly for 30 minutes.
- You will be asked to drink plenty of water and to empty your bladder immediately prior to the scan.
- Your PET-CT scan will be performed whilst you lie comfortably on the scanning bed. The scan takes approximately 30 minutes to complete.

This test **should not** make you feel unwell. Usually there are no ill effects from the injection. It will not make you sleepy nor will it prevent you from driving. It is rare for it to cause an allergic reaction, even in people who are susceptible to allergies.

## Results

Your results will be available at your next clinic appointment.

## After your scan

You should carry this letter with you if you are travelling through train stations, airports and seaports. These areas may have very sensitive radiation detectors in place that can detect extremely small quantities of radiation. It is just possible that, until the radioactivity from this test has completely left your body, you may trigger one of these detectors. In the unlikely event that this occurs, there is no reason to be concerned.

Customs officials who operate these types of detectors are experienced in understanding what the detector has picked up, and after asking you a few simple questions and conducting a brief non-intrusive examination with a hand held detector, will let you pass on your way as soon as possible.

Different countries have different procedures and some may wish to see your appointment letter as part of this process. If you are planning to travel in the next week it is recommended that you carry this letter with you.

## **Cancellations**

If you are unable to keep this appointment, please let us know as soon as possible and we will arrange another for you.

## **Facilities in the Department**

We have a comfortable waiting room with T.V. and a ward with beds and reclining chairs for patients who need them. Lunch and refreshments will be provided for you at appropriate times.

## **The PET-CT scanner**

This is a special camera, which allows us to take pictures of the radioactivity in your body and perform a CT scan at the same time.

## **Location**

The Royal Liverpool University Hospital is situated on the edge of the city centre. Please come directly to the Department of Nuclear Medicine, which is situated on the ground floor and is clearly sign-posted from each entrance.

## **Transport**

The Royal Liverpool Hospital is well served by public transport. Patients and visitors who are able to do so may wish to consider using public transport. For details of routes, services and times please contact the Merseytravel line on Tel: 0151 236 7676.

Parking for patients and visitors is available at the Q-park multi-storey car park. It is located almost opposite the main hospital entrance. The entrance by car is on Epworth Street off Erskine Street.

The car park is open 24 hours a day seven days a week.

Please take your ticket with you when you leave your car. Payment is made when you return to your car at the machines within the car park. Your ticket is inserted into the exit barrier as you leave the car park. The car park is continually monitored by parking hosts and CCTV. There are spaces for the disabled within the car park. If you need help, please speak with the parking hosts at the car park entrance. If you normally require an ambulance when you attend hospital please contact the department as soon as possible.

## **Further Information**

**If you have any further questions, or require further information, please contact the Department of Nuclear Medicine**

**Tel: 0151 706 4464**

**Fax: 0151 706 5844**

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**The above information is available on request in alternative formats including other languages, easy read, large print, audio, Braille, Moon and electronically.**