



# Patient Information

## What is Positron Emission Tomography (PET-CT)?

Positron Emission Tomography-Computed Tomography (PET-CT) is a subspecialty of nuclear medicine where PET technology is combined with CT to reveal information about both the structure and function of body cells and tissues in a single examination. Combining these scans improves the diagnostic accuracy and provides more detailed anatomical and metabolic visualisation of disease sites throughout the body. Prior to the scan, we inject a radiotracer which will gradually disperse throughout the body, accumulate in some of the body's cells (including abnormal cells), and enable us to create a whole-body picture of any potential disease process.

The PET images assess the function or metabolism of body cells and the CT images assess the anatomical structure of your organs. Functional imaging is sensitive and allows disease to be diagnosed long before it is manifested structurally. The structural images allow small areas of disease to be more accurately localised. PET-CT is extremely sensitive in detecting disease even in its early stages, and is used to more accurately diagnose and localise pathology and monitor the effectiveness of treatment.

## A PET-CT scan is performed to:

- Find, diagnose and stage many disorders, including cancer
- Plan treatment, including surgery and radiotherapy
- Evaluate the effectiveness of treatment and exclude disease recurrence

## What preparation is required?

Patient preparation prior to PET-CT helps us achieve optimum imaging quality. There are several important things to consider prior to undergoing a PET-CT scan. Our staff will assist you with this in the days leading up to your scan.

## Please let us know:

- If you are or think you may be pregnant, or breast feeding
- If you have kidney failure or have diabetes (insulin dependent or non-insulin dependent)
- If you have had a previous adverse reaction to intravenous contrast (for CT scans)
- If you are severely claustrophobic – there may be options to tailor the experience to make it more bearable
- What medications you are on and what allergies you may have
- Ideally, we need to know accurate dates of your most recent therapies (including surgery, radiotherapy, and chemotherapy)

If you have had previous imaging, please bring this with you (hard films or digital disc copy) together with the reports, on the day of your PET-CT scan.

## What happens during your PET-CT scan?

On arrival, our friendly staff will welcome you to our PET-CT imaging centre and confirm your appointment and details. It is important the correct preparation has been undertaken prior to imaging and our staff will take a short medical history and answer any questions you may have about the procedure. A needle will be placed into one of your arm veins and the radiotracer will be administered. For the next 60 minutes, it is very important that you limit body movement and talking. To make this more enjoyable we have private rooms with comfortable recliner chairs and a television you are free to watch. After 60 minutes, you will be ready for your PET-CT scan which will be performed with you lying on the scanner table.

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## How long will the scan take?

Please allow 2-3 hours for your PET-CT appointment from start to finish. This time includes paperwork, scan preparation, the actual scan, and time to refresh yourself after the scan with a cup of tea. The scan preparation takes 1-2 hours, depending on the type of PET-CT you are having. For the most part, you will be relaxing in a comfortable recliner chair, in a private room in front of the television with a warm blanket. You are allowed to drink water during this time. The scan itself takes 20-40 minutes depending on the type of scan you are having. At the time of booking, our friendly Qscan Customer Service team will advise you how long you can expect to spend at our imaging centre on the day of your scan.

## What is the radiation dose?

The risk of treatment is always weighed against the potential benefits for all radiology and nuclear medicine procedures. Qscan uses the latest generation of PET-CT scanner which is able to accurately detect the smallest doses of radioactivity. Thus, we can keep the administered radiation dose to a minimum. This radioactivity will clear your body within 24 hours. 18F-FDG has a half-life of just under 2 hours, which means that 8 hours after injection, more than 90% of the activity will have disappeared. Typically, a patient will receive 5mSv from the radiotracer and approximately 9mSv from the CT component of the test. A total dose of 14mSv is a very safe level of radiation exposure, even if multiple scans are required over a period of time.

## How much will the PET scan cost?

Please contact our friendly Qscan staff who will clarify the cost of your PET-CT.

## When can I get my results?

Once the scan is completed, the images will be reviewed by one of our highly trained subspecialty PET Radiologists. Any previous imaging you may have had will also be correlated. Your images and report will be available to your referring doctor online or via fax by the next business day. You will also be able to access the report on your home computer, phone or tablet via our online application Qscan MyResults Patient Access. The images and report will be available on MyResults 7 days after your scan.

## Where can I go for a PET Scan?

Qscan Radiology Clinics have multiple PET-CT and oncology imaging services across Australia. For further details please call one of our friendly Qscan staff on **1300 177 226** or visit our website to find a clinic near you: **qscan.com.au**