

PET Scan

Information for patients

Positron emission tomography (PET) scans are used to produce detailed 3-dimensional images of the inside of the body. PET scans are similar to CT scans but use different technology to image the body.

The images can clearly show the part of the body being investigated, including any abnormal areas and can highlight how well certain functions of the body are working.

PET scans are often combined with CT scans to produce even more detailed images. This is known as a PET-CT scan.

How PET scans work?

PET scanners work by detecting the radiation given off by a substance injected into your arm called a radiotracer as it collects in different parts of your body.

In most PET scans a radiotracer called fluorodeoxyglucose (FDG) is used, which is similar to naturally occurring glucose (a type of sugar) so your body treats it in a similar way.

By analysing the areas where the radiotracer does and doesn't build up, it's possible to work out how well certain body functions are working and identify any abnormalities. For example, a concentration of FDG in the body's tissues can help identify cancerous cells because cancerous cells use glucose at a much faster rate than normal cells.

Preparing for a PET scan

PET scans are usually carried out at Mount Vernon Hospital on an outpatient basis, this means you won't need to stay in hospital overnight.

The PET scan department will contact you via telephone to arrange an appointment. It is important that you arrive on time for your scan because the radiotracer used has a short shelf-life and your scan may be cancelled if you're late.

Your appointment letter will mention anything you need to do to prepare for your scan. You'll usually be advised not to eat anything for 6 hours beforehand. Drinking is allowed but ideally you should drink only water. You should also avoid any strenuous exercise for 24 hours before your appointment.

It's a good idea to wear loose, comfortable clothes. It may be possible to wear these during the scan, although you may be asked to change into a hospital gown.

Avoid wearing jewellery and clothes that have metal parts, such as zips, as these will need to be removed.

If you're claustrophobic, ask the hospital staff before the day of the scan about the possibility of having a mild sedative to help you relax.

What happens during the scan?

Radiotracer injections

Before the scan, the radiotracer is injected into a vein in your arm or hand. You'll need to wait for about an hour to give it time to be absorbed by the cells in your body.

It's important to relax, keep as still as possible and avoid talking while you wait because moving and speaking can effect where the radiotracer goes in your body.

You'll be able to use the toilet before the scan, if you need to.

The scan

During the scan, you lie on a flat bed that's moved into the centre of the large, cylindrical scanner.



Stay still and refrain from talking while the scanner takes pictures of your body.

The scan usually takes up to 30 minutes. Having the scan is completely painless but you may feel uncomfortable lying still for this amount of time.

If you feel unwell at any point there's a buzzer you can press to alert the medical team who will be able to see you throughout the scan.

After the scan

You shouldn't experience any side effects after having a PET scan and can usually go home soon afterwards.

The results of your scan won't usually be available on the same day. They'll be sent to your specialist to be discussed at your next appointment.

The Doctor that referred you for the PET scan will receive your results and contact you to arrange any follow up appointments.

Are there any risks?

Any exposure to radiation carries a very small risk of potential tissue damage that could lead to cancer at a later date, the amount of radiation you're exposed to in a standard PET scan is small – about the same amount you get from natural sources, such as the sun over a 3 year period.

The radiotracer becomes quickly less radioactive over time and will usually be passed through your body naturally within a few hours. Drinking plenty of fluid after the scan can help flush it out of your body.

As a precaution, you may be advised to avoid prolonged close contact with pregnant women, babies or young children for a few hours after having a PET scan because you'll be slightly radioactive during this time.

The CT component of a PET-CT scan also involves exposure to a small amount of additional radiation, again the risk of this causing any problems in the future is still very small.

Who should I contact if I have a problem or question?

Please call 01923 886311 with any queries

Languages/ Alternative Formats

Please ask if you require this information in other languages, large print or audio format.
Please contact: 01895 279973

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如果你需要這些資料的其他語言版本、大字体、或音頻格式，請致電01895 279 973 查詢。

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