



Positron Emission Tomography (PET) Scan

This brochure tells you about a PET scan, the benefits and the risks, what happens before, during and after having a PET scan.

What is a PET Scan?

A PET scan uses a special camera and a computer to take pictures of the organs in your body. Most PET scans also use a low radiation dose CT scan so the areas of the body are more accurately identified.

You will be given a radioactive liquid (isotope) into a vein in your hand, arm, or foot.

The scanner has a round opening in the centre and a flat bed for you to lie on. While you are lying on the bed, it will slowly move you into the opening where the pictures are taken. The movement is controlled by the staff.

A PET scan may be used to show:

- cancer and what stage it is at
- diseases of the heart or brain

Benefits of a PET Scan

- Shows all the organs of the body in one image.
- May show changes before CT or MRI scans.
- Can show if you have cancer and how far it has spread.
- Can be used to look at the response of your cancer treatment.
- Generally painless.

Risks of PET Scan

Your doctor knows the risks of having a PET scan. Your doctor will consider the risks before recommending you to have a PET scan. Possible risks are:

- Not recommended for pregnant or breastfeeding women.
- Very small chance you could develop cancer in the long term from the radiation.
- Infection, bleeding or bruising at the site of an intravenous injection.

Preparation

- Bring your referral letter or request form and all x-rays taken in the last 2 years with you.
- Leave the x-rays with the staff, as the doctor may need to look at them. These will be returned to you before you leave or you will be told when these are ready to be picked up.
- Leave all jewellery and valuables at home.
- You may be asked not to eat or drink for 6 to 8 hours before the PET Scan.
- If you are diabetic, you will be given special instructions.

Just before the PET Scan:

- You may be given a gown to wear.
- You may be asked to remove any metal objects.
- You may request or be asked to take a tablet to help you relax (sedative).

Important to tell your doctor before the PET Scan

- If you are or may be pregnant.
- If you are breastfeeding.
- If you have any allergies.
- If you are diabetic.
- If you have eaten anything.

What happens during a PET Scan?

Staff will put a needle into a vein in your hand or arm ready for the injection. Staff will prick your finger with a small needle and use a special machine to measure the amount of sugar in your blood.

Radioactive liquid

The staff will inject a small amount of radioactive liquid into a vein in your hand or arm. You will then wait around 60 minutes while the liquid moves through your body. Staff will then ask you to go to the toilet to empty your bladder before you have your PET scan.

PET scan

You will be asked to lie on a bed. The staff will set up the camera and leave the room while the pictures are taken. They can see, hear and speak to you at all times. You will be able to speak to them at all times. They will tell you what is happening and when to hold still. If you get stiff, need to move or are feeling closed in (claustrophobic), tell the staff.

The camera may pass over your body while it is taking the pictures. A PET scan takes 1 to 2 hours including time taken to get ready. The scan itself takes about 20 minutes.

When the scanning is finished you will be asked to wait while the staff check the pictures.

Consent

You have the right to refuse an examination and may do so if you wish. You may be asked to fill in a consent form.

When will I get the results?

The amount of time it takes for you to get your results will differ depending on where you get your scans done. The imaging specialist will look at the pictures and write a report. The pictures may be on films or on a CD.

Ask whether you should wait to take the pictures and report with you, or whether they will be sent to your doctor.

Your doctor will need to discuss the report with you. You will need to make an appointment to do this.

After the PET Scan

You will be able to go soon after the PET scan has finished and can continue with normal activities.

- Staff will need to take out the needle if it is still in your hand, arm or foot.
- Staff will give you any special instructions
- The radioactive liquid will disappear from your body with only a very small amount remaining after 2 to 4 hours.
- Drink plenty of fluid to help get rid of the radioactive liquid.

If you had a sedative:

- **You must not drive a car or take public transport and must have someone with you for 24 hours afterwards.**
- **You must not operate machinery for the rest of the day.**

Costs

The cost of a PET Scan will depend on exactly what is needed and where the scan is performed. When you ring to book your scan, you may wish to ask if it will cost you anything. Otherwise, you can ask staff when you go to have your scan.

Further Information

For more detailed information on a PET scan, please see the [PET Scan brochure](#) from [Inside Radiology](#), a resource produced especially for consumers by the [Royal Australian and New Zealand College of Radiologists](#).

If you would like to look at other relevant brochures, please see

- [CT Scan](#)
- [Radiation risks of x-rays and scans](#)

Or log into the Diagnostic Imaging Pathways website - www.imagingpathways.health.wa.gov.au/includes/consumer.html

Or if you have questions or require any other information please contact your doctor.

Consumer Participation

This information has been reviewed by representatives from the following groups:

- Aboriginal people
- People with disabilities
- Seniors
- CALD (Culturally and Linguistically Diverse)
- The Health Consumers' Council.

Feedback

The Division of Imaging Services, Royal Perth Hospital is committed to providing a friendly and professional service. If you would like to provide feedback on this information sheet, please send to:

Quality Coordinator
Imaging Services
Royal Perth Hospital
GPO Box X2213
Perth WA 6000

Website

For more information go to www.imagingpathways.health.wa.gov.au

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