

PET-CT Brain Scan



What is a PET-CT Brain scan?

An imaging technique that uses small quantities of a radioactive injection (a sugar) to produce information about the anatomy (CT) and function (PET) of your brain.

Appointment information

Most appointments are made by telephone. Please expect a phone call from the hospital (a withheld number) within a few days. Also expect a telephone call to confirm your attendance one working day before your scan. Please contact us if any of the following apply to you:

- Epileptic
- Surgery on your head/brain within the last 6 months
- A recent infection
- Pregnant, breastfeeding or have young children
- Diabetic
- Unable to tolerate MRI or CT scans due to claustrophobia
- Allergic to contrast media (x-ray dye)
- Unable to lie flat with no more than 2 pillows

How do you prepare for this scan?

The accuracy of a PET-CT scan depends on your body's metabolic activity. You can control this using the instructions below. It is extremely important you follow these instructions.

- Nothing to eat or drink (except water) for 6 hours prior to your appointment time, this includes chewing gum, mints, cough drops and Nicorette gum.
- You may and are encouraged to drink 1-2 pints of water during this time (unless you are on fluid restrictions).
- Avoid Caffeine for 12 hours prior to the scan. This includes some cold remedies and medicines.

- Take prescribed medicines as usual unless instructed otherwise. (If your medications have to be taken with food get advice from your doctor).
- Avoid strenuous physical activities for 24 hours prior to your scan e.g. running, cycling, gym.
- If you are nervous about the scan, it is possible to take a sedative after your injection. **If you feel this will be necessary, please contact your GP** to arrange a prescription and bring the tablets with you. Please arrange for someone to accompany you home as we recommend that you don't drive for the remainder of the day if you take this medication.

Who can come with you for this scan?

If you would like a friend or relative to come with you, they may wait in the radiology waiting room – they will not be with you while you are relaxing after your injection or during your scan.

Please do not bring a child or pregnant woman with you because of the radiation.

On the day of the scan

Please attend the Radiology Department at the Royal United Hospital, Bath, Zone B, Department B7 and report to the reception desk.

If you are running late or will not be able to attend please contact us immediately.

You will be escorted to your own personal waiting room where the procedure will be explained to you, a short medical history taken and a pin prick of blood for baseline glucose measurement. Please feel free to ask any questions at this point.

A cannula will be inserted usually into an arm vein and the radioactive injection given. This behaves in a similar way to normal sugar. **There are no symptoms or side effects associated with this injection.**

You will then be asked to relax in this room for 30 minutes to allow the injection to travel around your system.

Immediately prior to the scan you will be asked to empty your bladder and then go to the scanning room.

For 5 hours after your injection, please sit on the toilet when passing urine.

Your Scan

During the scan you will be lying flat on your back with your arms by your sides.

The imaging table will swiftly move through the scanner during the CT phase. For the PET phase the bed will remain in one position, within the scanner, for 10 minutes and you will need to keep your head very still.

The scan will take 10-20 minutes.

Expect to be in the department for 1½- 2 hours.

What happens after my scan?

Once the scan is completed you will be shown to a waiting room where, because of the length of time you have been without food, we advise you to have a snack and a drink before leaving the department. **There will be a drinks machine but we cannot provide anything to eat so please bring a snack with you.** You may continue with your normal diet. The injection will have no effect on your driving abilities.

Results

The PET/CT staff cannot issue results. Our clinicians will review your scan and issue a report to your referring doctor.

Important information regarding this scan

Production of the radioactive tracer occurs every morning and is extremely complex. On rare occasions production may be unsuccessful or delayed. Such incidents are out of our control but we will endeavour to inform you if your appointment needs to be cancelled or rearranged as soon as possible.

Are there any risks from the radioactive liquid?

The radioactive liquid is used as sparingly as possible and the benefits of this scan far outweigh the small risk from radiation. The radiation dose you will receive is similar to the radiation that you receive from natural sources in 2 ½ years. The substance is quickly eliminated from your body, and you can help this by drinking plenty of fluid for the rest of the day and emptying your bladder more often than normal.

Will the radiation affect other people?

You should avoid close contact with young children (picking them up or sitting next to them) and pregnant women for 5 hours after your scan. This will make sure that the radiation to them is as low as possible.

Travelling after your scan

Some airports, seaports, train stations, bus stations, and major sporting event venues have installed very sensitive radiation detectors. It is possible that these detectors may be triggered by the small amount of radioactivity remaining in your body on the days following your scan. Therefore, if you are planning to travel within **seven days** following your scan, it is recommended that you carry your appointment letter to show to officials if necessary.

Additional Information:

If you have any concerns or questions with regard to this procedure, or you need this information in another format such as larger print, please telephone the PET-CT staff on the phone number below.

PET-CT Staff: 01225 824076