

Patient information factsheet

Having an HMPAO brain scan

We have given you this factsheet because you have an appointment for an HMPAO brain scan. It explains what an HMPAO brain scan is and what it involves, so you know what to expect at your appointment. We hope it will help to answer some of the questions you may have. If there is anything you do not understand, a member of your healthcare team will be happy to explain further.

What is an HMPAO brain scan?

An HMPAO brain scan is a type of nuclear medicine test (tests that use radioactive materials to show how different parts of the body function) that looks at the blood supply to different areas of your brain.

The radioactive material used in this type of scan is called HMPAO.

How does the scan work?

A small amount of radioactive material is injected into a vein before the scan. Once in the bloodstream, the radioactive material quickly travels to the brain where it becomes trapped. A gamma camera (a special camera that can detect radioactive material in the body) is then used to take lots of images of the brain from different angles. The images taken by the gamma camera are then merged by a computer to produce a detailed image of the brain, allowing us to see which areas the radioactive material is trapped in.

Why do I need to have this scan?

The results of an HMPAO brain scan can be used to help diagnose conditions.

How should I prepare for the scan?

Eating and drinking

You can eat and drink as normal before the scan.

Medications

You should continue to take all your normal medications.

Pregnancy and breastfeeding

If you are pregnant or think you could be pregnant, or are currently breastfeeding, please contact us for advice as soon as you receive your appointment letter. As this test uses radiation, there would be a risk to your unborn baby. We will need to assess this risk before continuing with or postponing your scan.

Clothing and jewellery

You will not need to undress for this scan, so please wear comfortable clothing to your appointment. Please avoid wearing anything metal, such as jewellery and hair clips.

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Bringing someone with you

You may wish to bring a relative or friend with you for support. Please do not bring children or anyone who is pregnant with you to your appointment.

Transport

If you need patient transport to get to your appointment, please contact your GP surgery so they can arrange this for you.

What will happen before the scan?

When you arrive for your appointment, we will invite you into one of our injection rooms, where we will then explain the scan to you to make sure that you fully understand the procedure before asking you for your consent to proceed. This is a good opportunity for you to ask any questions you may have.

If you are happy to proceed, we will ask you to lie down on a couch. We will then insert a butterfly needle or cannula (a thin, plastic tube) into a vein in your arm or hand. Once in place, you shouldn't be able to feel this. We will then give you an injection containing a radioactive material (called HMPAO) via your butterfly needle or cannula. After we have given you the injection, we will allow a few minutes for the radioactive material to circulate and settle in your brain.

The preparation for the scan will all be done in a dimly lit room in silence, to prevent overstimulating any areas of your brain before the scan.

What will happen during the scan?

Once the radioactive material has had a chance to settle in your brain, we will then take you into a separate room containing the gamma camera.

The scan will be performed by a nuclear medicine technologist or radiographer (a person specially trained in taking images of the inside of the body).

We will ask you to lie on a camera bed with your head in a headrest. We will then, with your permission, gently place some supports either side of your head and a strap across your forehead to help you keep your head still. The cameras we use during the scan are very sensitive to movement, so keeping your head as still as possible helps us to take better quality images. We will then move the cameras around you in a circular motion, capturing images from all angles. The cameras will come very close to your head but will not touch you at any point.

We will stay with you for the duration of your scan. If you feel uncomfortable at any point, please let us know.

How long will the scan take?

The scan usually takes 30 minutes, but please allow two hours in total for your appointment. We may need to perform the scan twice if there is significant movement during the first set of images. If this is the case, you will **not** need to have another injection of HMPAO.

Are there any risks or side effects?

An HMPAO brain scan is a safe procedure, and you should not experience any side effects. However, as with any medical procedure, there are some possible risks, including:

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Exposure to radiation

All nuclear medicine tests involve a very small dose of radiation. Radiation increases your risk of cancer, but for this scan, the risk has been assessed as low. We consider that the benefit to you from the scan outweighs the low risk from the radiation.

After your scan, there will be some radioactive material left in your body for a short while. For this reason, we suggest that you avoid prolonged close contact with pregnant women, babies and young children for the rest of the day.

What will happen after the scan?

You will be able to go home and return to your usual daily activities immediately after the scan.

When will I receive my results?

A neurologist will examine the images and write up a report. We will then send this report to the doctor who referred you for the scan. They will then discuss your results with you at your next clinic appointment.

Radiation protection information

Please read the information below carefully.

Urinary incontinence (loss of bladder control)

Some of the radioactive material left in your body after the scan will pass out in your urine. If you suffer from urinary incontinence, please let us know during your appointment. If you use incontinence pads, please bring spare pads with you to your appointment.

Travel

It is safe for you to travel after your scan. Many airports and seaports have very sensitive radiation detectors, so it is possible the very small amount of radioactive material left in your body after your scan could set off a detector. If you intend to travel in the days following your scan, we suggest you take your appointment letter with you to explain that you have had a nuclear medicine scan.

Further information

We have enclosed a map and information on how to get to our department. If you are arriving by car, please remember our car parks can get very busy, so it's a good idea to allow plenty of time to find a space. You may wish to consider getting a lift or coming by public transport.

Contact us

If you have any questions or concerns, please contact us.

Nuclear medicine team

Telephone: **023 8120 6627** (Monday to Friday, 8am to 5.30pm)

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