Your visit to the Nuclear Medicine Department

Information for patients
Nuclear Medicine
Your visit to the Nuclear Medicine Department

Your doctor would like you to come to the Nuclear Medicine Department for a test or scan. Below are answers to some of the questions you may have. Your appointment letter will also tell you more information.

What does a Nuclear Medicine Department do?

Nuclear medicine departments carry out scans and therapy procedures.

A scan is a way of imaging bones, organs and other parts of the body by using a small dose of a radioactive chemical. There are different types of radioactive chemical. The one used depends on which organ or part of the body is to be scanned. The images show the function of your body.

Therapy works by injection or swallowing of a radioactive material that delivers a radiation dose to the body. If you are a therapy patient you will have received a separate leaflet giving further information.
How does it work?

The radioactive chemical (sometimes called a radioisotope or isotope) emits gamma rays which are similar to X-rays.

A tiny amount of chemical is put into the body, usually by an injection into a vein in an arm. (Sometimes it is breathed in, or swallowed, depending on the test). Over a period of time, (from several minutes to 6 hours), it will concentrate in the area of interest. A Technologist will tell you how long you have to wait for your scan; you may be able to leave the department and return later.

When it is time to do the scan, the radiation is detected by a gamma camera and converted into a computer image as the camera passes over you or rotates around your body. This usually takes between half an hour to an hour. The camera will come close to you but not touch you and someone will be in the room with you at all times. The appointment letter will give you specific details for your test.

You need to lie as still as possible whilst each picture is taken.

Is there anything I should tell the staff before the injection and scan?

Yes...

- If there is any chance that you could be pregnant
- If you are currently breastfeeding
- If you have had an x-ray procedure, which has used a contrast media within one week of your appointment
Do I need to do anything before the scan?

Please read all the instructions in the appointment letter carefully. If you do not follow the instructions fully we may not be able to carry out your test.

You can eat and drink as normal before your arrival and between your injection and scan. Your appointment letter will tell you if you have to do something different.

Do I need to stop taking tablets or medicine?

For most tests there is no need to stop or change regular medicines. Your appointment letter will tell you if you need to stop or change medicines. If you normally have pain relief please take this as normal; bring it along with you.

What happens just before the scan?

Usually you will not be required to undress. Women may be required to remove their bra and you will be asked to remove all jewellery and metal objects; as these will interfere with the pictures. You may also be asked to empty your bladder before the scanning begins.

Do I need to do anything after the scan?

You may be asked to drink (non-alcoholic drinks) at least 1 litre of fluid during the day of the test. This helps wash the radioactivity out of your body. The rest will disappear naturally.

If possible, please avoid close contact and prolonged contact with babies, children and pregnant women for the rest of the day. This helps to avoid exposing them to any unnecessary radiation.
Are there any risks with radioisotope scans?

Nuclear medicine procedures use ionising radiation to form images of your body or to provide your doctor with clinical information. Ionising radiation can cause cell damage that may, after many years or decades turn cancerous. We are all at risk of developing cancer during our lifetime. The normal risk is that this will happen to about 50% of people at some point in their life. This procedure will add only a very small chance of this happening to you, (less than 0.01% increased risk). The doctors caring for you consider that the benefits of having the test outweigh any risk from the radiation.

As with any other types of radiation (such as X-ray), there is a small risk that the gamma rays may affect an unborn child. So, tell your doctor if you are pregnant or if you may be pregnant.

I have children; will they be affected?

Do not bring your children to the department. You are advised not to spend too much time close to children or pregnant women for a period of time (normally less than 16 hours). We will advise you of this.

Is it safe to return to work?

Occasionally, we advise you not to return to work on the day of the test. This depends on the type of work you do and we will advise you further when you attend for your test.

Are the results of the scan available straight away?

No, once the scans have been reported the results will then be sent to the referring doctor.
What should I do if I am unable to attend for my appointment?

Nuclear Medicine tests are expensive, so if you cannot attend please contact the department as soon as possible.

Can we help make your visit better?

If you have difficulty walking or lying flat, or you feel very unwell, please contact the Nuclear Medicine Department and ask to speak to someone about your needs before your appointment. Please let us know if we can help with other difficulties you may have, such as a hearing or visual impairment.

I need an interpreter

Please contact us a few days before your appointment if you need an interpreter, as we are not able to use members of your family as interpreters.

Training staff in the Nuclear Medicine Department

Hospitals in Sheffield are teaching hospitals and our Medical Physics department is involved in training staff. There will be students under training in the department who may be observing scans or carrying out the scans under supervision. Please inform us if you do not wish to have a student present.

Consent

We must seek your consent for any procedure or treatment beforehand. Staff will explain risks, benefits and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.
Frequent questions:

What shall I do if I cannot attend?
Please contact the department as soon as possible if you are unable to attend for your appointment. If you do not attend your appointment without informing us the request will be returned to your doctor.

I am going on holiday after my scan…
A little radioactivity will remain in your body after your scan. There is a possibility that this will be picked up by the sensitive radiation detectors at some airports, train stations and seaports. This is no cause for concern, but you should tell us if you intend travelling abroad in the week following your scan or therapy and we will provide an explanatory letter to carry with you.

What follow-up care will I need?
No special care should be needed after the scan or procedure.

Will it hurt?
As with any injection it may hurt slightly, in a similar way to a blood test.

Is there a weight limit on the scanner?
There is a weight limit on some of our equipment. Please contact the department if you weigh more than 130kg (20 stone).

Will I glow in the dark?
No. The radiation will be emitted from your body without you being aware of it.

Will it affect my pet?
No it will not affect your pets.

Should I have any concerns relating to my religious beliefs?
If you feel that there are any aspects of your scan or treatment procedure that conflict with your religious beliefs, please let us know as soon as possible. Some injections are prepared using human blood products.
Will I feel different?
You should not feel any ill effects from the injection. It will not make you sleepy or stop you from driving a car.

Where can I find more information?
If you need to know more about your scan before your appointment, please contact the reception on the number given on your letter. You may also like to view our website at: www.sth.nhs.uk If you have any questions about your medical condition you should contact your doctor.

Car parking: allow extra time before your appointment as parking is limited.

Northern Hospital: A number of pay-and-display car parks are available. However, these do get full quickly.

Hallamshire Hospital: A pay-on-exit car park is available.

Weston Park Hospital: Car parking is available. However, there are a limited number of spaces.
Nuclear Medicine, part of the Directorate of Medical Imaging and Medical Physics, at:

Northern General Hospital
E Floor (follow purple signs for Vickers corridor) **Entrance number 20**
Herries Road
Sheffield

**Satnav S5 7AT**

Reception Tel: **0114 271 4374**

---

Royal Hallamshire Hospital
I Floor
Glossop Road
Sheffield S10 2JF

Reception Tel: **0114 271 2779**

---

Weston Park Hospital
(Ground Floor)
Whitham Road
Sheffield S10 2SJ

Reception (RHH) Tel: **0114 271 2779**

---

Sheffield Teaching Hospitals operates a no smoking policy in and around all its premises
Alternative formats can be available on request. Please email: sth.alternativeformats@nhs.net

© Sheffield Teaching Hospitals NHS Foundation Trust 2020

Re-use of all or any part of this document is governed by copyright and the “Re-use of Public Sector Information Regulations 2005” SI 2005 No.1515. Information on re-use can be obtained from the Information Governance Department, Sheffield Teaching Hospitals. Email sth.infogov@nhs.net