DAT Brain Scan

Nuclear Medicine
Patient Information Leaflet

Prepared by the British Nuclear Medicine Society.
The content of this leaflet is intended for general information only. Details of how a scan is carried out may vary from one department to another and may be changed according to individual patient conditions.

British Nuclear Medicine Society
Sir Colin Campbell Building
Triumph Road
Nottingham
NG7 2TU
www.bnms.org.uk

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What is a DAT brain scan?
DAT stands for dopamine active transporter. Dopamine is a chemical which is important in areas of the brain that help control movement. A DAT brain scan is a nuclear medicine test that looks at the function of dopamine transporters in your brain. It is often used to help distinguish Parkinson’s disease from other causes of tremor or difficulties with movement.

Is it safe for me to have the scan?
For this scan it is necessary to inject a small amount of radioactive tracer, called a radiopharmaceutical, in order to take the pictures. The small risk from this (similar to a CT scan) is outweighed by the information that will be gained by taking the scan. A doctor will have checked the request to make sure this is the appropriate test for you.
If you have any concerns or would like further information, please contact the department where you are having your scan. If you don’t understand why you need to have this scan please speak to the doctor who referred you.

For female patients
If you know that you are pregnant, or there is any chance that you may be pregnant, then please contact the department where you will be having your brain scan. Do this as soon as possible as the scan can be postponed if it is not urgent.
Also contact the department if you are breast-feeding, as they may give you special instructions.

Preparation for your scan
You may need to stop some of your usual medicine before your scan. Therefore your appointment letter may ask you to contact the nuclear medicine department where you will be having your scan in order to discuss your medication.

When you arrive
You will be asked to swallow two small tablets in preparation for the scan. These tablets will not make you feel any different; they are just to stop the tracer from going to places where it isn’t wanted.

Your injection
At least 1 hour after taking the tablets a small amount of radioactive tracer will be injected into a vein in your arm or hand. You may have had a blood test in the past. This is much the same. The ‘pinprick’ of the needle may hurt a bit, but that is all.
After the injection you will be asked to wait for between 3 and 5 hours before the pictures can be taken. During this time you can leave the department if you wish.

**Your scan**

The scan is taken by a special machine called a gamma camera. This is not a tunnel, but the camera detector will come close to your head. There are sensors in the camera which stop it moving if it touches anything, so it cannot hurt you.

You will be asked to lie on your back on a special couch with your head underneath the camera detector. The scans usually take between 30 and 45 minutes and it is very important that you keep still during this time. If you think that you will find this difficult please speak to the nuclear medicine department before your appointment.

You will not be left on your own – there will always be someone immediately available.

**After your scan**

You may be given two more tablets to take at home on the next day, but this isn’t always necessary.

It is very unlikely that you will feel any side-effects after the scan, but if you think that you have please let the nuclear medicine department know.

You may continue all your normal activities unless you have been advised otherwise.

After your scan there will be some radioactivity left in your body but this will not present a significant risk to other people around you. However, for the rest of the day, we suggest that you try to keep any time that you spend within arm’s length of pregnant women, babies and small children as short as possible; but there is no need to stop giving children essential love and care.

The radioactivity in your body will soon disappear.

**Travelling abroad**

It is perfectly safe for you to travel abroad after your scan, but many airports and sea ports are now equipped with very sensitive radiation detectors. So it is possible that the very small amount of radioactivity left in your body could set off a detector as you pass through security. Therefore, if you intend to travel abroad within a week following your scan, it could be helpful to take with you something to explain that you have recently had a nuclear medicine scan. This could be your appointment letter or some other official confirmation from the department where you had your scan.
Your results

Your scan will be looked at by a specialist doctor, who will issue a report. The report will be sent to the doctor who requested your scan rather than to your GP. This is because the doctor who requested your scan will have all the results from other tests and will be able to tell you how the result of your DAT brain scan affects your care.

Information about you

As part of your care, information will be shared between clinical staff, some of whom you may not meet. It may also be used to help train other staff. Information collected may also be used later on to help the department improve their quality of care, plan services or to research into new developments.

The pictures from your scan may be used to teach other healthcare workers, but your name and all other identification will be removed first. It won’t be possible to identify you from the scan pictures.

All information will be treated as confidential and is not given to anyone who does not need it. If you have any concerns, please discuss these with the department.

More information

All the staff would like to make your visit as pleasant as possible. If you have any concerns please talk to a member of the nuclear medicine staff.