

# Having a Dopamine active transporter (DAT) scan

Nuclear Imaging Department Radiology

## Introduction

This leaflet tells you about having a DAT scan. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor.

## What is Nuclear Imaging?

Nuclear Imaging is a way of imaging different parts of the body using a small amount of radioactive isotope attached to different chemicals. These radioactive isotopes give off gamma rays, which are similar to X-rays.

A gamma camera is used to detect these rays and produce an image on the computer. Unlike ordinary X-rays, nuclear imaging can be used to show how well an organ is working as well as what it looks like.

The radioactive isotope is normally given as an injection into a vein but can be inhaled or swallowed depending upon the test.

## What is a DAT 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 scan is a nuclear imaging 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.

The liquid radioactive isotope used in this test has to be given as an injection into a vein in your arm or hand and is no worse than having a normal blood test.

After your injection you will be free to leave the department if you wish and return for your pictures approximately 3-4 hours later. We will confirm your return time with you once you have had your injection.

**The prevention of infection is a major priority in all healthcare and everyone has a part to play.**

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

## Is there any preparation?

There are some medications that can interfere with a DAT scan therefore it is important for you to contact us (if we have not already spoken) and tell us what medication you are currently taking before coming for your scan.

You will need to come to the department an hour before your injection is due to take a special tablet. This will ensure that the radioactive isotope will not go to the thyroid gland which is sensitive to radiation.

You can eat and drink normally through out this examination.

## Can I bring a relative / friend?

Yes, but they should be over 18 and not pregnant.

Children under 16 years attending for a scan should be accompanied by a parent or guardian.

## What if I am pregnant or breastfeeding?

If you are pregnant or think you may be pregnant you should inform the department before attending for your scan. Also certain radioactive substances are excreted in breast milk. If you are breastfeeding you should tell us prior to coming for your scan, so we can advise you of any special precautions.

## What happens during the scan?

Prior to your scan you will be asked to use the toilet and empty your bladder. You do not have to undress for the scan but will be asked to remove metal objects such as keys or coins from your pockets and to take off any jewellery.

The scan is taken with you lying on an examination couch underneath the gamma camera. The camera starts off above your head and it will rotate around you to build up a 3D Image of your brain.

## How long will it take?

The initial injection of the radioactive isotope will take place approximately an hour after you have taken the tablet and you should allow about 20 mins for this.

The images are taken 3-4 hours after the injection and should take approximately 45 min.

## What are the risks?

Most things that we do in life or in medicine have a small risk and we want you to understand any risks involved. Please remember that we would not recommend this test if we did not think that the risks were outweighed by the potential benefits.

## Radiation

The radioactive isotope injection exposes you to gamma rays which are a form of radiation similar to X-rays. We use as little radiation as possible – the amount used is similar to that in many other X-ray or nuclear medicine scans and is the same as a few months' worth of the natural background radiation to which we are all exposed.

As a precaution we ask that you avoid prolonged close contact (over an hour at less than one metre) with any children or pregnant women, following your injection and for the rest of the day. This is to avoid exposing them to unnecessary radiation.

## Are there any side effects?

The injection does not cause any side effects nor will it make you sleepy. You will still be able to drive and carry on with any normal activities.

## When do I get the results?

We cannot give you the results of the scan on the day you attend.

The scan will be reviewed and a written report sent to the Consultant / GP who referred you.

Your Consultant will then arrange a follow up appointment to discuss the results of your scan.

## What should I do if I have a query about my appointment?

If you have any queries about your scan or wish to alter the appointment please contact the department on:

**01902 307999 ext 86347**

**Monday – Friday, 9.00am – 4.00pm**

If you need an interpreter, please let us know.

Please note that in view of patient confidentiality, we are unable to discuss any details concerning this appointment with anyone other than you.

## Where can I get further information?

### Websites:

For general information about radionuclide tests visit The British Nuclear Medicine Society website: [www.bnms.org.uk](http://www.bnms.org.uk)

If you wish to know more about the radiation used in medical examinations, information can be found on the Public Health England website:

[www.gov.uk/government/organisations/public-health-england](http://www.gov.uk/government/organisations/public-health-england)

## Radiology Department

The Nuclear Imaging department is on the 2nd floor of the Radiology Department

The Radiology Department is situated off the main hospital street close to Greggs.

A site map can be found on the reverse of your appointment letter.

## Transport Information

### Zone A: A2 Radiology Department

**The nearest car parks are:** P5 & P6. Please allow time to park as our car parking areas may be busy. Car Parking is "pay as you leave". There are designated spaces for disabled.

### Public transport:

Details of the buses coming to the hospital are on our website [www.royalwolverhamptonhospitals.nhs.uk](http://www.royalwolverhamptonhospitals.nhs.uk)

## English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

## Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

## Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

## Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

## Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

## Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。