

DAT IMAGING FREQUENTLY ASKED QUESTIONS

• What DAT imaging?

Dopamine transporter (DAT) imaging takes detailed pictures of dopamine transporters in your brain. It uses a small amount of a radioactive tracer.

A SPECT brain scan uses a special camera to detect the radioactive tracer and show the dopamine transporters. SPECT stands for single photon emission computed tomography.

This helps researchers study how these cells function and identify patterns related to Parkinson's disease.

• Why is it important in the study?

Parkinson's disease affects brain cells that produce dopamine, a chemical that helps control movement.

A DAT SPECT scan shows how active these dopamine-producing cells are. By comparing these patterns across participants, including those with Parkinson's, those without, and those who carry the LRRK2 mutation, researchers can potentially uncover clues about how the disease develops and changes over time.

These insights may help identify markers that guide future treatments.

• What is the procedure?

Before the Procedure: You'll receive a medication called potassium iodide to protect your thyroid before the tracer is given. The study team will also review any medications you may need to pause.

Take **TWO** tablets at **8 am** the **DAY BEFORE** your appointment, and

Take **TWO** tablets at **8 am** on the **MORNING OF** your appointment

Tracer Injection: You'll receive a small injection of a tracer (called DaTscan™) into a vein in your arm or the back of your hand. This tracer helps highlight dopamine-producing cells in your brain.

Waiting Period: After the injection, you'll wait about three to four hours for the tracer to reach your brain.

The Procedure: When it's time for the scan, an imaging professional will help you get comfortable on the imaging bed with your head supported in a headrest. A specialized camera will take images of your brain. The detectors will move in a circle around your head and will be close to you during the scan. The scan is painless and usually takes about 30 to 45 minutes.

Completion: Once the scan is finished, you can return to your normal activities unless the study team gives you other instructions.



• What happens after a DAT SPECT scan?

After your scan, you can resume all usual activities. Eat as normal and keep well hydrated.

Possible side effects are rare and may include:

- Headache
- Upset stomach
- Dry mouths
- Nausea
- Sensation of motion
- Dizziness

• How long does the radioactivity stay in my system?

The DAT scan uses about the same amount of radiation as a chest X-ray. After the procedure, there will be some radioactivity left in your body, but this will not be a significant risk to people around you. However, until the following morning, try to limit close contact with young children or pregnant women.

The radioactivity will disappear naturally.

• Who should not have a DAT SPECT scan?

You won't be able to have a DAT scan if you:

- have an iodine allergy,
- are breastfeeding,
- are pregnant,
- are planning a pregnancy

• How is my privacy protected?

Your data is handled with care to protect your identity. Here's how:

- Each record is labeled with a study ID, not your name
- Only approved study teams working on the research will have access to your information
- Your personal information is removed before analysis, so researchers will not know the data belongs to you
- All data is managed according to laws that protect your privacy

• Will I get the results from my DAT scan?

If the DAT scan reveals something unexpected and clinically important, such as an abnormal result, the study team will let you know. With your permission, they may also share this information with your personal doctor and help arrange follow-up care if needed.

Research results that are not clinically relevant will not be returned.

• Any other questions?

If you have any other questions about the DAT SPECT procedure, you can discuss your concerns with a research team member involved in carrying out the study or a doctor involved in your care.

• Your Local Investigator for the LITE Study Is •

Principal Investigator: Dr. Esther Sammler

If you are interested in taking part in this study or would like more information, please ask the nurse or doctor looking after you to contact the study team.

Or: Call Researcher: [TBC]

Or: Email: [TBC]

We will discuss the study further and answer any questions you have.

You can find more information about the study in the Participant Information Sheet.

