

Brain Perfusion Scan

How to prepare and what to expect

A brain perfusion scan is used to detect changes in the blood flow in the brain. This handout explains how to prepare for the scan, how it works, what to expect during the scan, and how to get your results.

What is a brain perfusion scan?

A brain perfusion scan is a nuclear medicine scan. It uses a radioactive drug to diagnose diseases of the brain that affect blood flow to the brain.

The drug used in this scan is ordered especially for you. Because of this, we need at least 72 hours' notice if you must cancel or reschedule.

Call at least 72 hours before your appointment if you need to cancel or reschedule your scan:

- If you are a patient at UW Medical Center, call 206.598.4240.
- If you are a patient at Harborview Medical Center, call 206.744.0118.

How does the scan work?

We will place a thin tube called an *intravenous (IV)* line into a vein in your arm. You will receive a small dose of radioactive *tracer* through the IV. This tracer collects in your brain and gives off gamma rays. As the gamma camera detects the rays, it creates pictures and takes measurements of your brain.

How do I prepare?

- Do **not** use marijuana for 72 hours before your scan.
- On the day of your scan, avoid caffeine, alcohol, cigarettes or other sources of nicotine, sedatives, and drugs such as methadone or cocaine.
- If you have any concerns about stopping medicines before this scan, please talk with your doctor.



A brain perfusion scan uses a gamma camera to create pictures of your brain.

- If there is any chance you are pregnant, or if you are breastfeeding, please tell the technologist.

How is the scan done?

- First, the technologist will put an IV line into your arm or hand.
- You will then sit in a room with your eyes open for 5 to 10 minutes. The room will be quiet and the lights will be very low. This will help your brain relax and be ready for the scan.
- You will be given a small dose of tracer through the IV.
- Imaging will begin about 90 minutes after you receive the tracer. You will need to lie flat on your back while the camera takes pictures of your brain. The technologist will help make you comfortable during the scan.
- You must not move while the camera is taking pictures. If you move, the pictures will be blurry and may have to be done over.
- A gamma camera will detect the gamma rays from the tracer. A computer will use the gamma rays to create pictures of your brain.
- Imaging will take 35 minutes. During this time, you may also have a special type of X-ray called a low-dose *computed tomography* (CT) scan.
- The entire study should take about 1 hour.

What will I feel during the scan?

- You may feel a little discomfort from the IV.
- Lying still on the exam table may be hard for some patients.

What happens to the radioactive tracer?

- Most of the radioactivity passes out of your body in your urine or stool. The rest simply goes away over time.

Who interprets the results and how do I get them?

A nuclear medicine doctor will review your images, write a report, and talk with your provider about the results. Your own provider will talk with you about the results of your scan.

You may also read your results on your eCare Results page. If you need copies of your images on disc, call 206.598.6206.

You and your provider will decide the next step, such as treatment for a problem, as needed.

Talk with your provider to find out whether or not you will need to restart any medicines that you stopped for this scan.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

- UWMC Imaging Services:
206.598.6200
- Harborview Imaging
Services:
206.744.3105