Health Facts for You

UWHealth

Nuclear Medicine SPECT Brain Imaging for Seizures (Ictal and Interictal) — Adult

The purpose of the SPECT brain test is to identify the area of the brain involved with a seizure. The seizure event is called **ictal**. Between seizures is called **interictal**.

Getting Ready
You do not need to do anything to prepare for this test. You will only need to bring any items needed for a hospital stay.

Where to Go
You should arrive at the UW Health University Hospital. It is located at 600 Highland Avenue in Madison.

What to Expect
The order of events described in this information may change. They are based on when your last seizure occurred.

Day 1
On the first day, seizure medicines may be tapered or stopped as needed and we will observe your seizures.

Day 2
A nurse will place an IV for the test. We may place an arm board to help your arm stay straight for the injection. We will attempt to inject the radioactive substance during a seizure. Both the EEG tech and Nuclear Medicine tech will wait with you for a seizure to occur. If we know what triggers your seizures, we may try to trigger a seizure. We wait for 4 hours each day for a seizure. When there is a seizure, we will quickly give the injection of a radioactive substance to take the pictures of the brain. Pictures are taken 1-6 hours after injection.

If there is no seizure, we may keep watching and attempt an ictal injection for more days.

Last Day
Once we have gotten a seizure and ictal imaging you may then go for interictal imaging at least 24 hours after the ictal injection. Interictal imaging takes place while seizure free.

Images are taken with a large device called a SPECT camera located in Nuclear Medicine. This camera is like a CT scanner. You lay down on a table and place your head into a head rest to lay still for the pictures.



The SPECT camera rotates around the head to take each picture. The total time of the imaging is 45-60 minutes.

If pregnant or breast/chest feeding, or if there is a chance you could be pregnant, please tell us. This test should not be done during pregnancy or breast/chest feeding, except under special circumstances.

Who to Call
UW Health patients who live in the area can call the Neurology Clinic at:
(608) 263-5442.

UW Health patients, who live out of the area, should call **(800) 323-8942.** Ask for Neurology Clinic at University Hospital

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 3/2025 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#8412.