

Nuclear Medicine Brain Imaging for Seizures (Ictal and Interictal) - Pediatric

Why is the test done?

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

Do I need to prepare for the test?

No, not for this test. Please be sure to bring what will be needed for a hospital stay.

Where is this test done?

You and your child should arrive at the UW Health - American Family Children's Hospital. It is located at 1675 Highland Avenue. Check-in at the Diagnostic and Therapy Center. It is on the first floor of the American Family Children's Hospital. A nurse will place an IV for the test. They will help get you to the Nuclear Medicine Section in University Hospital.

What can be expected?

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

Day 1.

Initial imaging takes place while seizure free. This is called interictal. A small amount of a radioactive substance will be injected into an IV. This injection allows us to take the pictures of the brain. Pictures are taken about 1 hour after injection. They are taken with a large device called a SPECT Camera. This camera is like a CT scanner. The patient lies down on a table placing the head into a head rest. This helps the patient 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. After scanning, there will be an admission for EEG monitoring. We will also try to wean you off anti-seizure medicine.



Day 2.

Seizure medicines may be tapered or stopped as needed. Your seizures are observed.

Day 3.

Imaging after a seizure (ictal) - Today is the day we will attempt to inject the radioactive substance during a seizure. We will test the IV first. This is to be sure it is working. We will place an arm board to help your arm stay straight for the injection. Both the EEG Technologist and Nuclear Medicine Technologist will wait with you and your child for a seizure to occur. If we know what triggers your child's seizures, we may ask that this action or activity take place. We wait for 4-8 hours each day for a seizure. When there is a seizure, we will quickly give the injection of the radioactive substance. The EEG Technologist will remove the EEG leads.

You will then go to Nuclear Medicine for the ictal imaging. This happens 1-6 hours after the injection took place. The imaging will be just like the first day.

If there is no seizure, we may continue to watch for more days.

If pregnant, possible pregnancy or you are breast feeding, please tell us. This test should not be done during pregnancy or breast-feeding, except under special circumstances.

For Additional Questions

UW Health patients who live in the area can call the Nuclear Medicine Clinic at: **(608) 263-1462.**

UW Health patients, who live out of the area, should call **1-800-323-8942.** Ask for the Nuclear Medicine at University Hospital.

If you are a patient receiving care at UnityPoint – Meriter, Swedish American or a health system outside of UW Health, please use the phone numbers provided in your discharge instructions for any questions or concerns.

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 © 6/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#7910