Read this handout to learn how lymphoscintigraphy for skin cancer works, how it is done, what to expect, and how to get your results.

What is lymphoscintigraphy?

Lymphoscintigraphy is a scan that identifies the first lymph node that the cancer site drains to. This is called a sentinel lymph node. To find this node, a radioactive material (tracer) is injected near the cancer site. The tracer flows from the injection site into the sentinel node.

Your lymphoscintigraphy for skin cancer will be done right before your surgery. During surgery, your surgeon will remove this lymph node and have it biopsied (checked in the lab) to see if any of the tumor cells have metastasized (spread) to it.

How do I prepare?

You will need to apply EMLA cream to the area at least 1 hour before your scan. This will numb the area.

EMLA cream has 2.5% lidocaine and 2.5% prilocaine. You should receive a prescription for the EMLA cream from your surgeon.

What can I expect on the day of my scan?

- If your surgery will be at the hospital:
  - Check in at the Surgical Specialties Center. The center is in the Surgery Pavilion, at the east end of the hospital.
  - You will then change into a hospital gown, and a staff person will take you to the Radiology (Imaging Services) department.
- If your surgery will be at Roosevelt Clinic:
  - Check in at the UWMC Radiology (Imaging Services) department.
How is the scan done?

- A nuclear medicine doctor will clean your skin with an antiseptic called ChloraPrep.
- The doctor will then give you up to 4 injections of the radioactive tracer around the skin cancer. Your lymph nodes around the skin cancer will take up the tracer, usually within minutes.
- The area may be gently massaged. This will help ease any discomfort from the injection, and will also help increase the flow of lymph fluid.
- The tracer will drain into the lymph system and collect in the sentinel lymph node. This does not mean there is cancer in that node. It just shows the node with the highest risk of getting cancer, since it is the one that the tissue drains to first.
- For the scan, you will lie on your back. A gamma camera will hover above you and take images. When the sentinel node is found, your doctor will use a surgical pen to mark on your skin where that node is.
- If your skin cancer is in your head or neck area, you will likely also have 3D imaging with a low-dose CT scan (SPECT/CT). This scan will help find the exact location of the sentinel node. This extra imaging will take about 15 minutes.

What happens during surgery?

- During surgery, your surgeon will use a hand-held device that detects radiation to find the sentinel node. Your surgeon will then take a tissue sample from the sentinel node to be biopsied in the lab. These lab tests will show if there is cancer in the lymph node.

What will I feel before and during the scan?

You may feel some discomfort from the injections. You may be asked to change positions as the images are taken.

After the Scan

- After your scan, you will be taken to Surgery Pavilion pre-op or Roosevelt Clinic, depending on where your surgery will be done.
- There are no other special instructions to follow after the scan.

Who interprets the results and how do I get them?

A radiologist or nuclear medicine doctor will read your scans. The doctor will also review the other scan results that you may have brought with you. The doctor who referred you for this scan will talk with you about the results.