What is a sentinel lymph node surgery?
This is a surgery that is used to determine if certain types of cancer have spread beyond the site of the tumor. It will show the doctor if cancer cells may have spread to any lymph nodes.

What are Lymph Nodes?
Our bodies have a network of lymph channels and nodes that carry a watery clear fluid called lymph. The lymph fluid carries white blood cells, which help us fight infections. This fluid flows throughout our bodies, like the way blood vessels carry blood to all parts of the body.

What is a Sentinel Lymph Node?
The first lymph node (s) that the tumor may spread to is called the sentinel lymph nodes. By closely looking at the sentinel nodes, your surgeon can then decide if the cancer has moved outside its usual location.

Cancer cells can travel in the lymph system. Since the lymph system runs throughout the body, these cancer cells have a chance of spreading to other areas of the body.

Will my lymph nodes be removed?
Almost everyone has some lymph nodes (an average of 2) removed. The lymph node(s) that are removed are the ones that cancer would be most likely to spread to first. Many times the nodes do not contain cancer cells but the entire node is still removed to determine this. A sentinel node cannot be “biopsied.” It must be completely removed so the entire node can be looked at to see if cancer is inside the lymph node. Your surgeon removes these lymph nodes and sends them to a pathologist.

A sentinel lymph node mapping and excision (removal) of sentinel node(s) helps to trace the path on which a tumor may drain, and what lymph node (s) it may drain to.

How the surgery is done
Prior to the surgery, patients receive an injection of a radioactive tracer or dye near or at the site of their cancer. This injection and related x-rays are done in the nuclear medicine department. There may be some pain with the injection. Pictures will show which lymph node(s) have taken up the radioactive dye.

Your sentinel node surgery may take place the same day as the radioactive tracer injection or the following day. In the operating room, the surgeon will inject a blue dye near the area of the cancer about 5 minutes before the surgery. During the surgery, your doctor looks at the lymph
nodes to identify which ones have the blue dye in them and also uses a probe to detect the presence of the radioactive tracer in your lymph nodes.

**How do they tell if there is cancer in my lymph nodes?**
After the lymph nodes are removed a pathologist looks at them under a microscope.

**What can I expect after surgery?**
After your surgery, you may notice that your urine is blue or green in color from the dye. This affect will go away within 24 hours. Some people get a very faint blue coloring to their skin after surgery as well. This will also go away within 24 hours. You may also notice some temporary numbness in the region of the surgery.

**Care of Your Sentinel Node Surgery Incision**
- You may have a gauze bandage over your incision which you can remove after 24 hours, if you have drainage from your incision; place a new piece of gauze over the site.
- Under any gauze dressing, your incision will be covered with special tape called Steri-Strips. These strips of tape are usually removed at your post-operative clinic visit but if they fall off before your clinic visit that is ok.
- Look at the site daily for any problems or signs of infection. You may notice a slight redness and swelling along your incision. This is normal.
- You may shower 24 hours after your surgery. Let water flow over the surgical incision(s) and pat dry. Do not soak in a tub or pool until you are seen by your surgeon at your post-operative visit.

**Pain Management**
The amount of pain may vary. You will be given a prescription for narcotic pain medicine. Use it as needed and as directed. Do not drive a vehicle while taking narcotic medicine.
- Eat plenty of fiber (bran, oats, fruits and vegetables).
- Drink 6-8 glasses of water each day to help prevent constipation.
- Take stool softeners if needed.
- If you have nausea, take your pain medicine with food.

Many patients find that taking 1 -2 tablets of Extra-Strength Tylenol every 4-6 hours is helpful to relieve pain. You may take up to a total of 8 tablets in a 24-hour period. Do not exceed this amount. If you have liver disease, check with your doctor before taking it. You may also take ibuprofen as directed by your doctor. Consult your doctor if taking other pain medicine.

You may also use ice from time to time on the incision. Do not use a heating pad as this may cause a burn to the skin.

**Signs of Seroma (fluid collection)**
A seroma is a fluid-filled bulge that forms under the skin in the place where the surgery happened.

If you have a fluid collection or seroma that is getting larger and causing pain or
discomfort, please contact your doctor. This is **not** an emergency. You may be asked to return to the clinic to have the fluid drained.

**Axillary Web Syndrome (cording):**
Cording can develop as a side effect of removing lymph nodes in up to 20% of patients. Some believe surgery leads to inflammation, scarring, and hardening of lymphatic vessels and other tissues, causing rope-like structures. You will often be able to see and/or feel one or more cords in your underarm area or along the inner part of your arm. Cording is often accompanied by pain and tightness in the underarm area or the inner part of the upper arm. It is most noticeable when you raise your arm overhead or out to the side away from your body, extending your elbow fully. Cording usually occurs anywhere from several days to several weeks after your underarm surgery. Treatment includes mainly moving and stretching under the guidance of an experienced therapist.

**Lymphedema:**
With removing some of the lymph nodes under the arm during surgery, there is a chance that lymph vessels have been damaged. Some of these lymph vessels carry fluid from the arm to the rest of the body. If the remaining vessels cannot remove enough of the fluid in the chest and underarm area, the extra fluid builds up and causes swelling, or lymphedema. Though the risk of this is low (1-8%) after a sentinel node biopsy, you should be aware of the following signs and symptoms to notify your doctor: achiness, heaviness, fatigue, and/or numbness/tingling of the involved arm.

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**To Reduce Risk of Arm Swelling After Surgery**

Exercise your affected arm while it is elevated by opening and closing your hand, and bending and straightening your elbow 15-20 times. Repeat this 3-4 times per day. This will assist your lymphatic system to pump excess fluid out of the arm.

1) It is important to **gradually** return to your prior level of activity after surgery. This will reduce your risk of strain from repeated or strenuous activity, which can result in injury, and has been associated with the onset of arm swelling in some people.

2) For the first 8 weeks after surgery, have all shots, IVs, blood draws or blood pressure tests done on the unaffected arm. If both arms are affected, then use your leg when possible. Try to avoid infections as well by avoiding burns, cleaning even small cuts promptly with soap and water, wearing gloves when gardening, and using insect repellent when outdoors to avoid bug bites.

3) Always monitor your arm for swelling because early detection is important. If you have any concerns, then consult your doctor. The sooner lymphedema is noticed the easier it is to manage.
Important Phone Numbers

To reach your doctor, call one of these numbers Monday – Friday, 8:00 am to 5:00 pm

- UW Health Breast Center (608) 266-6400
- UW Health General Surgery Clinic at UWHC (608) 263-7502
- UW Health General Surgery Clinic at 1 South Park (608) 287-2100

For Emergencies

- UW Hospital Emergency Room (608) 262-2398
- Meriter Hospital Emergency Room (608) 417-6206

After Hours

- UW Hospital Clinics: Call UW Hospital Paging Operator at (608) 262-0486 and ask for the surgery resident on call. Give your name and phone number with the area code. The doctor will call you back.
- UW Health 1 South Park – Call the number of your clinic and the answering service will contact the doctor on call. Give your name and phone number with the area code. The doctor will call you back.

Toll Free – If you live out of the area, you may use one of these numbers

- UW Hospital and Clinics 1-800-323-8942
- UW Medical Foundation (UWMF) 1-888-703-2778

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 ©8/2016. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#7733.