All About Mastectomy and Sentinel Lymph Node Biopsy

One of the most important goals of Moffitt Cancer Center is to provide you with quality patient care through education, research and patient care. The following information has been developed to help you understand the mastectomy and sentinel lymph node biopsy procedures for which you have been scheduled. Members of your health care team will review this information with you and answer any questions that you may have.

Definitions:

Mastectomy—Removal of the entire breast but not the muscles underneath.

Lymph Nodes—Small bean shaped glands found in the armpit. They remove waste and fluids from the arm and breast and help fight infection. They are also called lymph glands.

Sentinel Lymph Node—The first place breast cancer may metastasize (or spread) is to lymph nodes in the axilla (underarm area) on the side of the body where the cancer is. The first lymph node(s) are referred to as the sentinel lymph node(s) or the “gatekeepers”. These nodes are first biopsied to determine if the cancer has spread. If cancer cells are not found in the sentinel lymph node(s) that were removed, it will not be necessary to remove the remaining lymph nodes in the arm pit.

Sentinel Lymph Node Mapping and Biopsy—This procedure is a two step process. Performing the sentinel lymph node biopsy requires a small incision in your axilla. In the first step, the doctor injects a radioactive substance and/or blue dye in the area around the tumor. Lymphatic channels (like blood vessels) carry these materials to the sentinel lymph node. The sentinel lymph node turns blue and becomes radioactive, making it easier to find. Pictures may be taken in the Nuclear Medicine Department. These pictures are called lymphoscintigraphy.

Lymphoscintigraphy—A test that will help your surgeon determine which specific lymph node(s) will need to be removed to detect cancer.

Pathology Lab Process—The pathologist will look at the sentinel lymph node(s) and give your surgeon a preliminary report. The final microscopic report takes seven (7) to ten (10) working days. This final report is usually available at the time of the post-operative visit.

How is the mastectomy and sentinel lymph node biopsy performed?
The sentinel lymph node biopsy is a two step process that happens at the same time as your mastectomy.

- First, you will be asked to go to the Radiology Department to have a radioactive tracer injected into your breast. This may occur either a day prior, or the morning of your surgery.

- Next, you will be taken to the operating room. Before your surgeon begins the surgery, a special type of blue dye is injected into your breast tumor or previous biopsy site.

The radioactive tracer and the blue dye mark the path from the breast cancer to the sentinel node(s). The surgeon is then able to remove the node(s) identified by the dye or radioactivity. These nodes are then sent to the lab and a preliminary pathology report is given. If there are cancer cells present in these lymph nodes, all
the rest of the lymph nodes in the axilla (armpit) are removed. You can expect the biopsy and mastectomy to take approximately two hours or longer if immediate reconstruction is planned.

One or two drainage tubes are placed into the armpit and under the breast skin. You will be given instructions on care of the drain(s) in the hospital. There is little blood loss with this procedure. Therefore, blood transfusions are rarely needed. A clear, sterile dressing is placed over the surgical incision. This clear dressing can resemble clear glue. Small pieces of tape, called steri-strips, will be placed along the incision line.

**What activity restrictions should I follow?**
Your doctor will talk to you about any activity restrictions you need to follow.

**How long will I be in the hospital?**
The length of your hospital stay is usually one day. You will receive all the necessary instructions for your care at home before your discharge from the hospital. Your post-operative clinic appointment will be made for you before your discharge.

**What should I expect after surgery?**
If you had blue dye, your urine will be blue for 24 hours. Approximately one to two weeks after surgery, you will return to the outpatient clinic to see the surgeon. Before leaving the hospital, you will be given instructions on how to empty and care for the drain. It stays in place for 1-3 weeks. You should not lift anything heavier than a gallon of milk while the drain is in place. Instructions for arm and shoulder exercises will also be given to you by a physical therapist in the hospital. The final results from you pathology report will be discussed with you at your post-operative visit.

At the time of this post operative visit, your surgeon will refer you to other doctors that treat breast cancer such as the Medical Oncologist or Radiation Oncologist.