3) Pain

Pain after surgery will subside over time. If the pain is severe and lasts a long time, ask your doctor about options for pain relief.

4) Axillary nerve damage

There are motor nerves and sensory nerves around the axillary and breast area, so when you undergo axillary lymph node resection, it can damage nerves as well. Symptoms include a dull sensation in the axillary area or, in rare cases, difficulty lifting the arms.

5) Lymphedema

Lymphedema can occur in 5-10% of patients who had complete removal of their lymph nodes. Lymphedema is the swelling of the arm near the surgery site. When lymph nodes are removed, lymph fluid may build up if it is not properly reabsorbed into your body. This symptom can last for a lifetime, so watch for signs in order to prevent lymphedema.

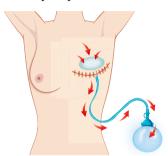
5. What should I do after surgery?

Stay on track for follow-up care to reduce risks of complications and recurrence.

1) Drainage tubes

Drainage tubes are used to check for bleeding after surgery and to collect excess fluids. Also, draining the excess fluids promotes healing. First, you will see blood draining out, but it will turn into lighter fluids later. The tubes will be removed if less than 20-30cc drains out per day.

Avoid showering for at least two days following the removal of the tubes. A large amount of fluid is not related to the severity of your cancer.



[Drainage tubes]

2) Bath

You have to be careful not to allow your wound to contact water during the first two weeks following your surgery. Even after taking out the stitches, be sure not to allow your wound to contact water for another 2-3 days. When you take a shower, cover your wound with gauze and water-proof bandaging. Avoid taking a bath for one month following surgery.

3) Wound supporting underwear

Wound-supportive underwear is recommended to be worn right after surgery. It applies pressure to the surgery site and helps to ease pain and edema. It is also suitable for frequent disinfection as it is easy to take off and put on. We suggest you wear this for 4-6 weeks following surgery.



4) Posture

One side of your shoulders may incline as you unconsciously try to relieve pain. However, this uneven posture may strain your spine or increase pain in other parts of the body. So check your posture in the mirror and try to keep your body straight.

5) Artificial breast

If you had a mastectomy, you will wear a silicon artificial breast with a similar shape and weight as your other breast. Besides cosmetic concerns, the purpose of the artificial breast is to balance your body. Generally, you will choose the most suitable breast 6-8 weeks after surgery when you are recovered. It is important to find the proper breast that fits you well.







[Artificial breast]

Diet management

There is no specific food prohibited to eat after surgery. Instead, we recommend you eat a well-balanced diet. It is not good to gain weight by overeating or to lose weight by malnutrition. Try your best to stay healthy and keep a healthy weight. Avoid groundless treatments (such as special food, medicine, folk remedies, oriental medicine, or immune therapy) which can cause side effects and interrupt the outcome of your treatment.

First visit after the surgery

Your final exam results will be ready 5-7 days after the surgery. The results will include the size of your tumor and whether you have hormone-receptor or axillary lymph node metastasis. Based on the results, your cancer stage and type of additional treatment will be determined.

Follow-up care

Once you complete breast cancer surgery, chemotherapy, and radiation therapy, you will begin follow-up checks for early detection of recurrence. Most cases of recurrence appear within five years after surgery. Therefore, schedule follow-up appointments once every six months for the first five years and once a year after that. Exams you will receive during follow-up appointments include mammography, breast sonogram, bone exam, and liver sonogram. Types of exams and follow-up duration will be determined by your doctor.

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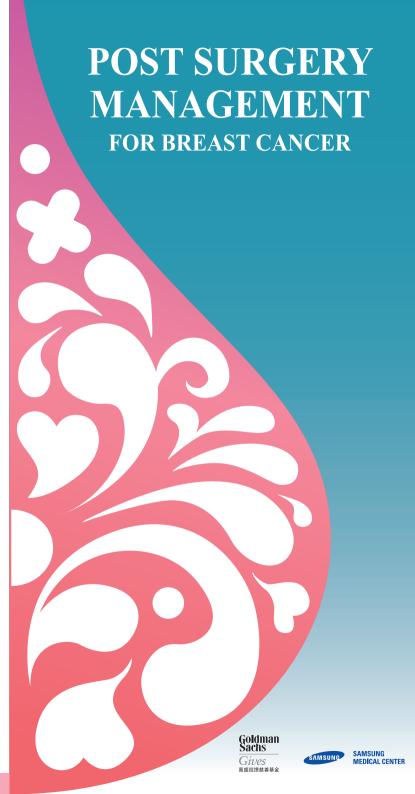
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* BRAVO Program: Psychosocial Support Program for Breast Cancer Patients and Survivors

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December, 2015 [Ver. 1]



Surgery is the primary treatment for breast cancer unless there is metastasis. The main two purposes of surgery are to remove the tumor and to determine if the cancer has spread to the lymph nodes under the arm. Through surgery, doctors can more accurately determine your cancer stage, its prognostic factors, and the most suitable adjuvant therapy.

1. Will the surgery remove the whole breast?

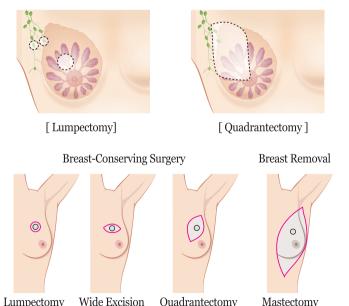
Not necessarily. There are several options such as mastectomy and lumpectomy. The goal of the procedure is to remove the tumor with some healthy tissue around it, leaving no cancer cells in the breast. The type of surgery is decided based on the cancer stage, location and size of the tumor, size of the breast, and your preference and accessibility for adjuvant therapy.

In the past, mastectomy was the most common type of surgery. Today, however, lumpectomy is the more preferred surgery as the after effects of mastectomy can impact body image and physical activity. Recent studies estimate that lumpectomy plus radiation therapy leads to the same survival rates as mastectomy alone.

2. What are my surgery options?

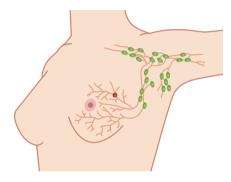
The two main types of breast cancer surgery are breast removal and breast conservation. **Mastectomy** is the breast-removing surgery, also called "modified radical mastectomy." It is primarily used for patients with large tumors or metastasis. The procedure removes the whole breast tissue including nipple and axillary lymph nodes. The primary benefit of this procedure is that it removes even tiny tumors completely, which decreases recurrence rate.

Lumpectomy is the breast conserving surgery, which removes the minimum amount of normal tissue along with the tumor. It is also called "breast preservation surgery" as it maximizes psychological and cosmetic satisfaction by retaining as much of your breast as possible. However, lumpectomy may not be an option if your tumor is large or its location is difficult to operate on. In addition to lumpectomy, radiation therapy is required as some cancer cells may have been left behind, which can cause recurrence.



1) What is sentinel lymph node biopsy?

Sentinel lymph node biopsy is intended to find and remove only the node that is most likely to have cancer cells rather than removing multiple nodes. If cancer cells are found, the axillary lymph node will be dissected, which reduces arm pain, edema, and other complications.



[Sentinel Lymph Node Biopsy]

2) Is it possible to reconstruct my breast?

Yes. Depending on how much of the breast is left and the margin of your surgery site, you can find the most appropriate reconstruction surgery for you. If you receive regular follow-up care, don't worry too much about late detection of recurrence.

Breast reconstruction uses an implant, tissue from another part of your body, or both. You can choose to rebuild your breast during your cancer surgery (immediate breast reconstruction), or after 3-6 months (delayed breast reconstruction). Recent studies show that immediate breast reconstruction does not affect the rate or time of local recurrence.

3. What complications can I expect from surgery?

There are many different complications related to breast cancer surgery, though none are lethal.

1) Complications due to general anesthesia

Detelectasis, pneumonia, liver and kidney depression, and myocardial infarction happen in some cases.

2) Overreaction to medication

Medications used during surgery may cause itching, rash, nausea, dyspnea, drop in blood pressure, or fainting. Make sure to report any drug overreactions you may have experienced in the past. Especially if you are taking anticoagulants like aspirin or Coumadin, be sure to tell your doctor as these drugs can increase the risk of hemorrhage.

3) Bleeding

You may notice bleeding at the surgery site. Some bleeding is normal but if you experience heavy bleeding, you may need to apply pressure or receive a blood transfusion. If you experience symptoms such as dizziness or swelling of the surgery site, talk to medical professionals.

4) Infection or Scars

In some cases, breast cancer surgery may cause inflammation and swelling. Tumor removal can leave scars, cause changes in breast shape, or cause nipple retraction and necrosis.

If you have symptoms of infection, rubefaction, itching, discharge, pain, or fever, report it to medical professionals.

5) Pain

Pain around the surgery site may last for some time. Generally, you may notice tenderness and pain around your axillary lymph nodes. If you have severe pain, ask your doctor for a pain reliever prescription.

4. What are the after-effects of breast cancer surgery?

The most common after-effects are seroma, pain, sensory nerve damage, and lymphedema. If your symptoms get worse, talk to your doctor for further treatment.

1) Seroma

You may feel like your breast is filled with water. This is due to a buildup of clear bodily fluids where breast tissue has been removed. It is not a symptom of infection or bleeding. Most seromas will be reabsorbed back into your body, but if the area becomes uncomfortable and painful, it might have to be drained by medical professionals

2) Neuropathy

After your axillary lymph nodes are removed, you may experience discomfort or pain in that area. This is a very common symptom that eases soon, but it can last longer in some cases.