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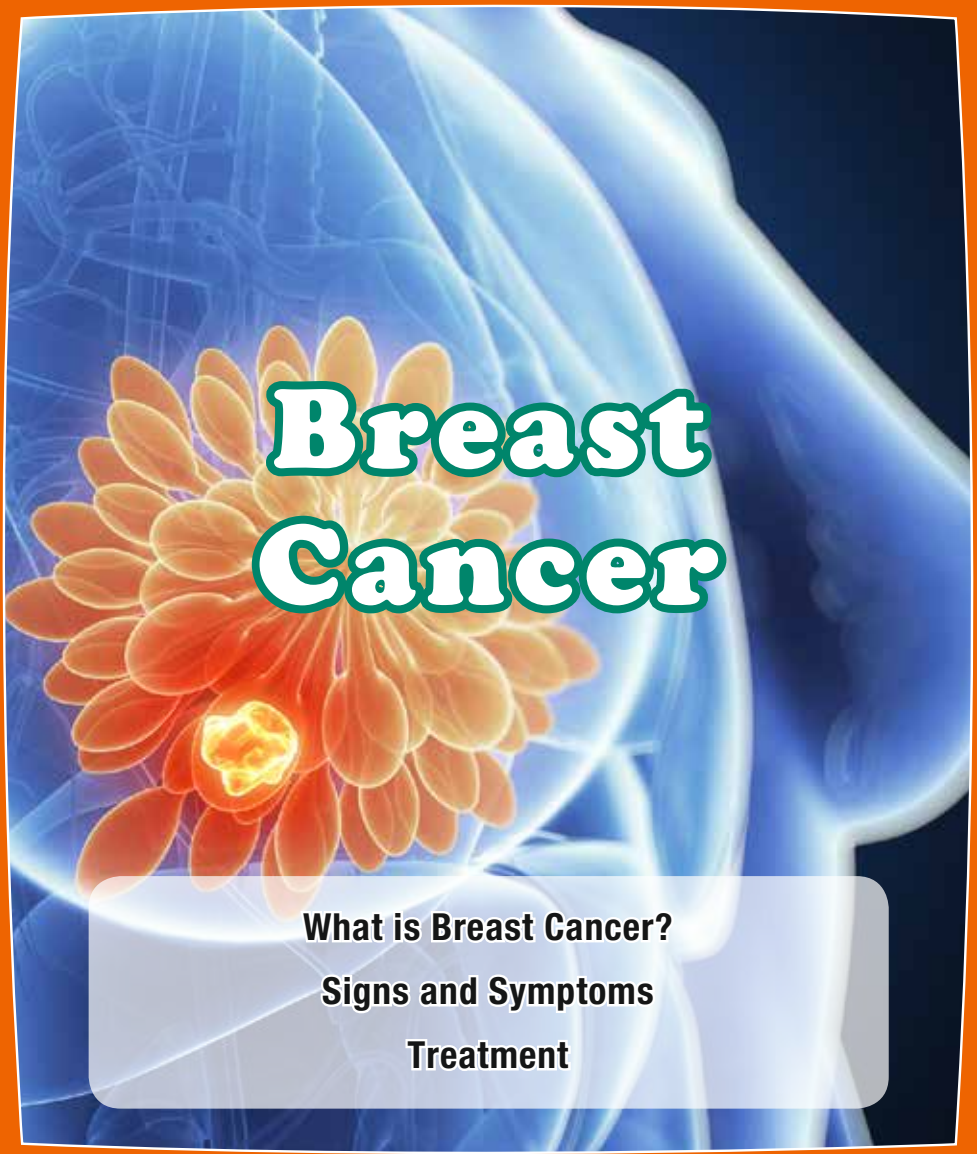

Breast Cancer

What is Breast Cancer?

Signs and Symptoms

Treatment

An Educational Initiative by National Cancer Centre Singapore

Contents

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Introduction

Breast cancer is the most common type of cancer among women in Singapore today. 1 out of every 14 women in Singapore is likely to be afflicted by breast cancer, with more than 1,926 new cases diagnosed every year. (Singapore Cancer Registry, Annual Registry Report 2011 to 2015)

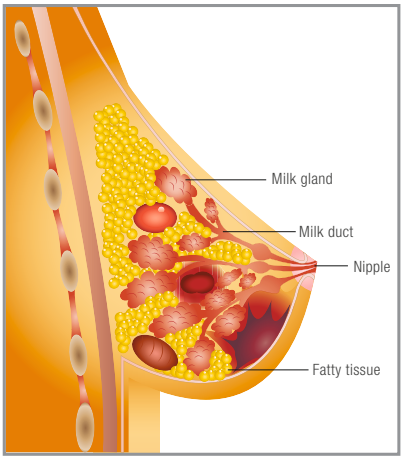
With more reliable early detection methods as well as the trend towards less invasive surgery, there is hope that even more women with breast cancer will be treated successfully and will go on to resume their normal lives.

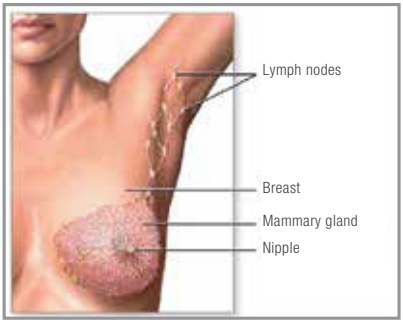
This booklet has been developed to help you learn more about breast cancer. It discusses breast cancer screening, early detection methods, signs and symptoms, how a diagnosis is made, treatment options and rehabilitation measures. Please understand that there is no single treatment that is "right" for all women, and how a woman reacts to the treatment is largely due to her physical and psychological make-up.

It is our hope that this booklet will clarify doubts about breast cancer by providing you with relevant information and coping techniques. This booklet serves only as a guide and its contents are not to be taken as medical advice. You will still need to discuss with your doctor the best treatment option for you. If you have any questions about the contents of this book, or if the information you are seeking is not covered here, please do not hesitate to contact the Cancer Helpline via telephone at 6225 5655 for more information.

Other cancer information booklets are also available at the National Cancer Centre Singapore's Cancer Education & Information Services. Contact the Cancer Helpline to request for a copy. For an electronic version of this and other booklets, please visit our website: www.nccs.com.sg/publications

THE NORMAL FEMALE BREAST





Female breasts are designed to produce milk. Each breast has many milk-producing glands arranged in 15 to 20 sections called lobes. These glands and lobes are linked by milk ducts that lead to the nipple located in the centre of a dark area of skin called the areola. Fibrous tissue and fat surround these lobes and help give the breasts their structure and shape.

Each breast also contains blood vessels, lymph vessels, lymph nodes and nerves. The lymph vessels carry colourless fluid called lymph and lead to small bean-shaped glands called lymph nodes. Clusters of lymph nodes are found in the armpit, above the collarbone and in the armpit, above the collarbone and in the chest. These vessels and lymph nodes are part of the lymphatic system. The main function of lymph nodes is to act as a drainage system by cleaning and filtering the lymph from bacteria and waste products before it is returned to the blood. They also produce white blood cells and antibodies to help the body in fighting infection.

The female breasts go through many changes after puberty. They grow and develop under the influence of hormones oestrogen and progesterone. To learn more about breast lumps and other breast changes, read NCCS' booklet on Common Breast Problems. For a free copy, call the Cancer Helpline on telephone 6225 5655 or email cancerhelpline@nccs.com.sg

WHAT IS BREAST CANCER?

Normal cells divide and reproduce in an orderly manner. Your body relies on this orderly activity to repair injuries and replace worn-out tissue. Sometimes this orderly process is disrupted. Cells grow and divide out of control producing extra tissue to form a mass or lump called a tumour. A tumour can be benign or malignant.

Benign tumours are not cancers. They may grow slowly but do not spread to other parts of the body.

Malignant tumours are cancerous growths and have the potential to spread to other parts of the body.

Breast cancer is a malignant tumour. It occurs when breast cells become abnormal and divide without control or order. The majority of breast cancers start in the milk ducts.

A small number start in the milk sacs or lobules. Within these two groups, some grow very slowly while others develop more rapidly. Breast cancer can spread to the lymph nodes and to other parts of the body such as the bones, liver, lung and sometimes to the brain.

WHO IS AT RISK?

Being a woman puts you at risk of getting breast cancer. This risk increases as you grow older. Several factors further increase your risk. A woman is at a higher than average risk for breast cancer if one or more of the following applies to her:

- Family history of breast cancer, especially in a first-degree relative (mother, sister or daughter), or two or more close relatives such as cousins
- Genetic alterations in certain genes such as BRCA1 and BRCA2
- Benign conditions such as atypical ductal hyperplasia, atypical lobular hyperplasia or lobular carcinoma in-situ diagnosed on breast biopsy
- Early menache (onset of menstruation) before the age of 12
- Late menopause (after the age of 55)
- Never had children
- Late childbearing (after the age of 30)
- Personal history of breast cancer
- Obesity
- Excessive weight gain in post-menopausal women
- Lack of exercise
- Excessive alcohol consumption over a long period of time
- Use of combined hormonal replacement therapy (HRT) for a long period of time

However, most women who have breast cancer have none of the above risk factors. Likewise, not possessing any of these risk factors does not mean that you will not get breast cancer. There is ongoing researches to learn more about these factors, as well as, ways to prevent breast cancer.

SIGNS & SYMPTOMS

Breast cancer is painless especially during the early stage. In fact, there may be no symptoms at all when breast cancer first develops. So watch out for changes in the breast. These are often the first signs that cancer is present:

- A persistent lump or thickening in the breast or in the axilla.
- A change in the size or shape of the breast.
- A change in the colour or appearance of the skin of the breast such as redness, puckering or dimpling.
- Bloody discharge from the nipple.
- A change in the nipple or areola, such as scaliness, persistent rash or nipple retraction (nipple pulled into the breast).

If you notice any of these changes, you should see a doctor immediately. Most often, they are not due to cancer, but only a doctor can tell for sure.

EARLY DETECTION & SCREENING

When breast cancer is found at an early stage, more treatment choices are available and the chance of a complete recovery is higher. So it is important to detect breast cancer as early as possible through regular breast screening even if there are no symptoms. "Screening" simply means performing a preliminary test or procedure to detect the most characteristic signs of a disorder that may require further investigation. There are several ways to screen for breast cancer besides watching out for the signs and symptoms mentioned earlier. These are:

A. Breast Self-Examination (BSE)

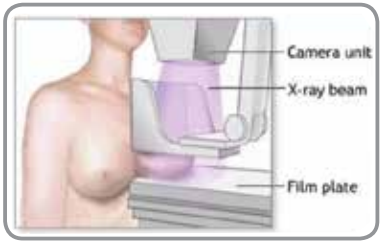
Perform Breast Self-Examination (BSE) ***once a month about 7 to 10 days from the first day of your menses.*** If you no longer menstruate, choose a date each month that is easy to remember. Report to your doctor any breast changes such as redness, swelling, presence of a lump, skin changes or discharge from the nipple.

B. Clinical Breast Examination

Get a doctor or breast specialist nurse to examine your breast ***once every year if you are 40 years and above.*** This procedure includes visual examination and feeling of the entire breast and underarm area for changes. These changes may or may not be due to cancer. With the help of further diagnostic tests, your doctor will be able to let you know.

C. Mammogram Screening

Mammography is a low-powered x-ray technique that gives a picture of the internal structure of the breast. Additional angles and magnified views are taken of suspicious areas. A mammogram may help in the diagnosis of breast problems including cancer. Even if you do not have symptoms, go for a mammogram screening ***once every two years if you are 50 years and above. Women who are 40 to 49 should talk to their doctor about when to start and how often to do mammogram.*** All women have an increased risk of developing breast cancer as they grow older. Breast tissue in younger women is denser, making it difficult for small changes to be detected. For this reason, mammogram screening is not recommended for women below age 40. However, if you have risk factors, discuss with your doctor when you should start regular screening.



Each breast is compressed horizontally, then obliquely and an x-ray is taken of each position.

For more information about breast cancer screening or if you have concerns about changes in your breast, you can do one of the following:

- talk to your doctor,
- contact the nearest polyclinic,
- contact your breast specialist nurse or
- call the Cancer Helpline on 6225 5655 and speak with a nurse counsellor

TYPES OF BREAST CANCER

Non-Invasive Breast Cancer

Non-invasive breast cancers are confined to the ducts within the breasts. They are known as ductal carcinoma-in-situ (DCIS).

Invasive Breast Cancer

Invasive breast cancer occurs when cancer cells spread beyond the ducts or lobules. Cancer cells first spread to surrounding breast tissue and subsequently to the lymph nodes in the armpit (axillary lymph nodes). Cancer cells can also travel to other parts of the body such as the lungs, liver or bones. When this happens, it is known as metastatic breast cancer.

MAKING A DIAGNOSIS

If you notice any lump or unusual changes in your breasts, you should see a doctor. Try to pinpoint the area accurately as this will assist your doctor with the examination. Your doctor may advise you to undergo some tests so that a definite diagnosis can be made. These tests may include one or more of the following:

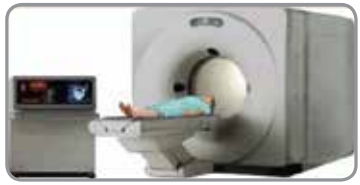
Mammogram

If you have breast symptoms, you may need to have a mammogram to help with the diagnosis. The mammogram checks for the presence and position of the abnormality. To do this, more detailed x-rays may be needed as compared to those taken for a mammogram screening. Sometimes a lump that can be felt is not seen on a mammogram. Other tests are often necessary to determine whether the lump is cancerous or not. If you have recently had a mammogram, remember to bring with you the x-rays (and report if available) when you see the specialist.

Ultrasound

Breast ultrasound is the use of high frequency sound waves to produce an image of breast tissue. Ultrasound does not use radiation. The doctor or radiographer does the scanning. This test can differentiate a fluid-filled cyst from a solid lump.

Magnetic Resonance Imaging (MRI)



A diagnostic test that uses magnetic fields to capture multiple images of the breast tissues. These images are combined to create picture of the inside of the breast. This test does not use radiation and are completely painless.

Fine Needle Aspiration (FNA)

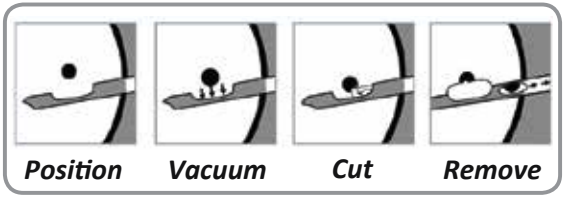
For this test, your doctor uses a syringe with a very fine needle to withdraw fluid or cells from a breast lump. This can be uncomfortable but is usually not painful. If the lump is just a cyst, withdrawing fluid in this manner will usually make the cyst disappear. However, if the lump is solid, your doctor may use this procedure to withdraw some cells from it. The cells will then be sent to a laboratory for examination.

Core Needle Biopsy

This method obtains a few slivers of tissue from an area of abnormality with a wide bore needle. Local anaesthetic is used to numb the breast area first, followed by a small incision in the skin to allow easy insertion of the needle. If the abnormality cannot be felt easily, the procedure can be performed with ultrasound or x-ray guidance.

Large Core Needle Breast Biopsy (Mammotome®)

Mammotome® Breast Biopsy uses a vacuum-assisted device to obtain tissue samples from non-palpable lesions. Small samples of tissue are removed from the breast using a large bore needle which is guided precisely to the suspicious lesion via x-ray or ultrasound.



A small titanium clip (microclip) may be placed at the biopsy site to act as a location marker for future treatment. An x-ray is taken during post-biopsy to ensure proper clip placement.

This procedure is minimally invasive as compared to an open surgical biopsy. It is performed as a day surgery procedure. It has the ability to sample tiny abnormalities called microcalcifications, making early diagnosis of breast cancer possible. It is done under local anaesthetic and takes about 30 to 45 minutes to complete. The procedure is usually not painful but you may experience some discomfort.

Excision Biopsy

An excision biopsy involves the surgical removal of a lump or sample of suspicious tissue for examination under a microscope to give a definite diagnosis. Sometimes, ultrasound or x-ray pictures are taken to insert a small thin wire to the abnormal spot in the breast. This wire is used to guide the surgeon to the right spot of abnormal lesion for removal. The technique is known as hook wire localisation biopsy.

Biopsies can be performed either under local or general anaesthetic, depending on the size and position of the lump. You can leave the hospital on the same day.

If you are unsure of how the biopsy will be done, you may want to ask the surgeon to explain how the procedure is done before you undergo it.

TREATMENTS

Treatment of breast cancer may include various methods, such as surgery with or without breast reconstruction, chemotherapy, radiation therapy, hormonal therapy and targeted therapy. Treatment options offered depend on a number of factors, such as the stage of cancer and likelihood of cure, your general health, and your preference. Being diagnosed with breast cancer and having to decide on the treatment option is one of the most difficult decisions you will ever have to make. Have someone close to accompany you when visiting the doctor to discuss the result of your tests and treatment options.

Surgery

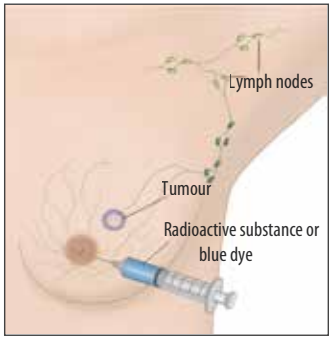
A lumpectomy or mastectomy is one of the most common treatments for breast cancer. The type of surgical treatment depends on the stage of the cancer, size of the tumour, in relation to the breast size, whether breast preservation is desired and your feelings about the options.

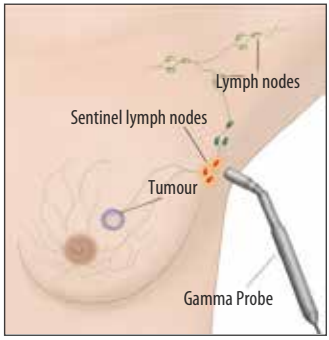
Breast Conserving Surgery (BCS) Wide Excision/ Lumpectomy

- Your surgeon will remove only the breast cancer and a rim of normal surrounding breast tissue.
- Your breast will remain. A scar and some changes in shape and size are expected.
- You can go home the next day.
- You may require a second operation if cancer cells are noted at the edge of the removed portion. This occurs in 10-15% of patients.
- You will need to have radiation therapy to the breast (Mon to Fri) for 4-6 weeks. This helps to destroy any remaining cancer cells.

Sentinel Lymph Node Biopsy (SLNB)

- If you have early stage breast cancer, and the lymph nodes in your underarm do not appear to have cancer, SLNB will be carried out.
- The first few lymph nodes (sentinel lymph nodes, SLN) in your underarm where the lymphatic vessels from the breast drain to, will be removed and examined during surgery under the microscope (frozen section).
- This is done under GA (asleep) and it is to determine if cancer has spread to these SLN.
- A blue dye or a radioactive substance is injected around the cancer site or at the nipple prior to surgery to locate the SLN.
  - The radioactive substance will be injected before the operation in the Department of Nuclear Medicine.
  - The blue dye will be injected during the operation.
- If cancer is detected in the SLN, lymph nodes in the axilla are removed. If no cancer is detected in the SLN, no further surgery is needed.
- The final histology will be reviewed about 1 week after surgery.
- In 2 - 3% of cases, the final assessment of the SLN may be different from the initial frozen section result and a second operation may be required.
- If the dye or radioactive substance is not able to identify the SLN, we will have to proceed to perform an axillary clearance.



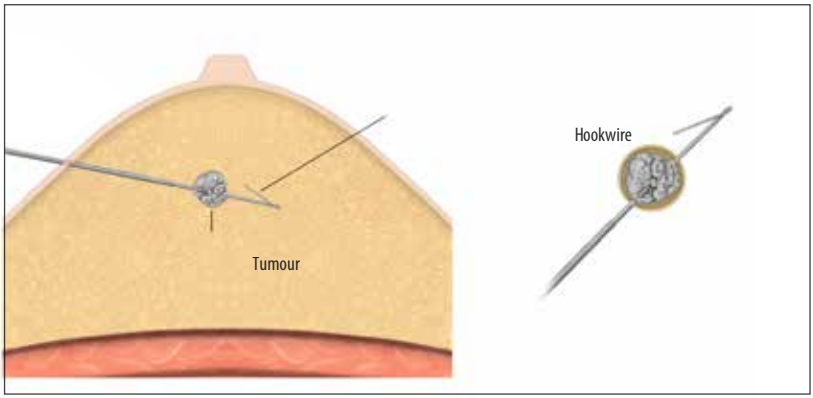


Axillary Clearance

- Involves the removal of all lymph nodes from the underarm.
- This is needed because the lymph nodes are found to have cancer cells.
- Side Effects:
  1. Shoulder stiffness.
  2. Swelling of the arm (lymphedema) 15-20%.
  3. Numbness of the inner part of your upper arm.

X-ray Guided or Ultrasound Guided Hookwire Localisation for Surgery

- This procedure is performed under local anaesthesia, before you go for surgery.
- Mammogram or ultrasound guidance is used to place a fine wire within the breast in close proximity to the lesion of interest.
- This wire marks the lesion to be removed.
- The wire and lesion of interest will be removed during the surgery.



Oncoplastic Breast Conserving Surgery

Mammoplasty (Breast lift / Breast reduction)

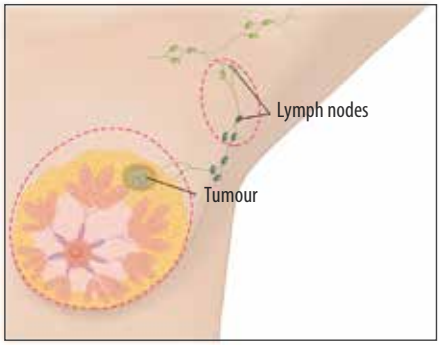
- All the points for BCS mentioned on page 7 are applicable.
- In addition, you will benefit from the **re-shaping of the breast** after cancer removal.
- This is performed to reduce breast deformity and improve the final appearance of the breast after cancer removal.
- As your cancer is large, the final breast volume may be smaller. Surgery to the opposite breast for better symmetry may be performed at the same time, or at a later date.
- Speak to your surgeon for specific details of this surgery.

Partial breast reconstruction (volume replacement) with a perforator flap

- All the points for BCS mentioned on page 7 are applicable.
- You are suitable for partial breast reconstruction **(volume replacement)** with breast conserving surgery.
- Fatty tissue next to your breast will be used to fill the space in the breast that results from cancer removal.
- This maintains breast volume and contour, reducing breast deformity.
- Speak to your surgeon for specific details on this surgery.

Simple Mastectomy

- The entire breast, including the nipple-areola complex is removed. After surgery, a neat and flat chest wound is expected.
- A soft tubing known as a drain is placed during surgery with the accompanying bottle to remove blood and fluid accumulated at the operated site.
- The drain is removed when the drainage is less than 30ml/24h after 1-2 weeks. You will be taught how to care for the drain.
- You can go home the next day.



Mastectomy with Breast Reconstruction

- ***Immediate***: You have chosen to have breast reconstruction at the time of mastectomy.
  1. Skin sparing mastectomy: where most of the skin of your breast will be preserved.
  2. Nipple sparing mastectomy: In suitable cases, the nipple may be preserved if tissue from the base of the nipple shows no cancer cells when tested at the time of surgery, But if the final histology results show cancer cells behind the nipple, you will be recommended a simple surgery to remove it.
- ***Delayed***: Breast reconstruction may also be done at a later stage, separate from the initial breast surgery.

Types of Breast Reconstruction

Flap reconstruction

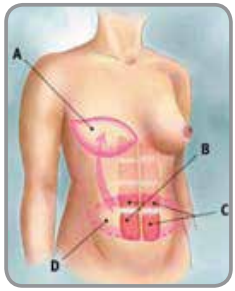
- Skin, fat and sometimes muscle (a flap) from another part of your body may be used to make it into a breast shape.
- The operation duration is about 6 - 8 hours.
- Hospital stay is between 1 - 2 weeks.
- Several drains are used and removed after 1 - 2 weeks.
- Flaps may be from the:

1. Back (latissimus dorsi)

A - Latissimus Dorsi muscle from the back is brought forward underneath the skin to complete the reconstruction.

2. Abdomen

- Trans-rectus Abdominis Muscle (Tram) Flap Reconstruction

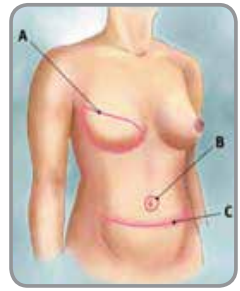


A - Mastectomy site

B - Right trans-rectus abdominis muscle

C - Left trans-rectus abdominis muscle

D - Segment of abdominal tissue, skin and fat to be transferred along with muscle to create new breast



A - Lines of reconstructed breast incisions

B - Re-positioned "belly button" incision

C - Abdominal surgery incision

- DIEP (deep inferior epigastric perforator) flap, taking skin and fat only

3. Buttock/Thigh

Breast Implants

- Silicone implants may be used to create a new breast.
- The operation duration is about 4 - 5 hours.
- Usually there are 2 - 3 drainage bottles inserted.
- Hospital stay is 3 - 5 days.
- **1-stage:** The permanent implant is inserted at the time of mastectomy.
- **2-stage:** A temporary expander may be placed at time of mastectomy, and gradually expanded to stretch the skin and the expander is exchanged for a permanent implant at a later surgery.

Chemotherapy

This treatment method uses anti-cancer drugs to kill cancer cells. They stop cancer cells from growing and reproducing themselves. These drugs can be given orally (by mouth) or by injection where it enters the blood stream and travels throughout the body. It may be used alone, before or after surgery, or together with radiation therapy to increase the effectiveness of treatment, depending on the stage of cancer.

Chemotherapy is given in cycles. Each cycle consists of a treatment period followed by a resting (recovery) period. As cancer drugs also affect normal cells, the resting period is to allow the body to recover before the next treatment cycle starts. There are side effects associated with chemotherapy such as hair loss, nausea and vomiting, loss of appetite, mouth ulcers and risk for infection. However, these are temporary and steps can be taken to prevent or reduce them.

Radiation Therapy

High-energy rays are used to kill cancer cells or stop them from growing further. Although radiation therapy can affect both cancer cells as well as normal cells, the aim of radiation is to destroy more cancer cells and spare as many normal cells as possible. Radiation therapy is given to the affected breast after a lumpectomy. In some circumstances, it may be given to the chest wall after a mastectomy. It is given 5 days a week on weekdays, over a period of 5 or 6 weeks. Radiation therapy can cause some side effects which vary among individuals.

The most common side effect is redness and dryness of the skin. Skin texture also becomes darker and thicker. The breast may swell, and increase or decrease in sensitivity. Usually, these effects start to get better when your treatment completed.

Intraoperative Radiation Therapy (IORT) involves the use of the Intrabeam® device to irradiate the tumour site during the surgery. The administration is done immediately after lumpectomy, also known as breast-conserving surgery. This procedure takes about 20 to 40 minutes. This radiotherapy regime is suitable for some early-stage patients. This treatment may be proposed to patients in the early stage of the disease who opt to keep their breasts.

Hormone Therapy

Some breast cancers grow with the influence of hormones. Patients with both oestrogen receptor (ER) and progesterone receptor (PR) positivity have the best chance of responding to hormonal therapy. Hormone therapy in breast cancer is aimed at affecting oestrogen, a hormone that is required for the cancer to grow. For some women with early breast cancer, anti-cancer hormone treatment may be used as an additional treatment to reduce the chances of breast cancer recurrence. Hormone therapy can cause some side effects. These are dependent on the type of drugs taken and can vary from one patient to another.

Tamoxifen is the most common drug used in this treatment. This drug blocks the action of oestrogen on the body but does not stop oestrogen from being produced. Tamoxifen may cause hot flashes, depression or mood swings, vaginal discharge or irritation, irregular menstrual periods and sometimes menopause. Any unusual bleeding should be reported to the doctor.

Serious side effects from Tamoxifen are rare but Tamoxifen can cause the formation of blood clots in the veins, especially in the legs. In a very small number of women, Tamoxifen can cause cancer in the lining of the uterus. You may be referred to a gynaecologist to evaluate any unusual bleeding.

Aromatase Inhibitors (AI)

For post-menopausal women, another group of drugs called aromatase inhibitors (AIs) is also used in breast cancer hormonal treatment. Aromatase inhibitors work by blocking an enzyme called aromatase that the body uses to produce oestrogen. The current AIs such as anastrozole, letrozole and exemastane, are well tolerated and are used in the treatment of early stage and advanced breast cancer. Side effects of AI include hot flashes, mood changes, nausea, vagina dryness, joint pain/stiffness, tiredness, lethargy and osteoporosis (including a higher risk of fractures compared toTamoxifen).

You can discuss with your doctor, Breast Care Nurse or pharmacist on what to expect and how to care for yourself during treatment. If there are more concerns, you can also contact the Cancer Helpline on tel: 6225 5655.

Targeted Therapy

Targeted therapy is a form of cancer treatment that involves the use of antibodies or small molecules to bind to specific sites on cancer cells in order to prevent cell growth and division. The aim of the treatment is to reduce or eliminate existing cancer cells in the human body while minimizing side effects on normal cells.

An example of targeted therapy for breast cancer is Trastuzumab (Herceptin®). It is an antibody which targets the HER2 (Human Epidermal Growth Factor Receptor). This receptor is over expressed in about 25% of all breast cancers, the presence of which can be confirmed by laboratory tests performed on the biopsy specimen and which is required for the drug to be effective.

Herceptin® has been shown to prolong survival in patients with HER2 positive advanced breast cancer (Stage 4) and reduce the risk of relapse in patients with early stage HER2 positive breast cancer, when used in combination with chemotherapy.

An increasing number of targeted therapies are becoming available for the treatment of breast cancer, including Pertuzumab (Perjeta® targets HER2), Lapatinib (Tykerb®targets HER2 and EGFR), Palbociclib (Ibrance® targets cell cycle pathway in hormone positive breast cancers), Ribociclib (Kisqali® targets cell cycle pathway in hormone positive breast cancers in hormone positive breast cancers) and Everolimus (Afinitor® targets mTOR pathway in hormone positive breast cancers).

Patients who receive targeted therapies may still experience side effects but these are generally milder and less common compared to chemotherapy.

POST-OPERATIVE CARE

Wide Local Excision I Mastectomy with Axillary Clearance

If you are going for an operation called Wide Local Excision or Mastectomy with Removal of Axillary Lymph Nodes, your stay in the hospital after surgery is usually about 1 to 2 days. Therefore, it is important for you to learn how to take care of yourself at home after you are discharged from the hospital.

Care of your incision wound

On the first two days after the operation, keep the outer dressing dry by covering it with a protective sheet before taking a shower.

Wound Closure

If your wound is closed with **staples:**

- After a shower, keep the wound dry by dabbing lightly with a towel and leave to air.
- For the removal of staples, visit your treating doctor, the polyclinic or family practitioner on the date that you are instructed to do so.

If your wound is closed with **absorbable sutures:**

- Steri-strips may be placed across the wound to assist with external wound healing.
- The steri-strips can be removed on the 10th post-operative day after your shower.

See a doctor:

- if you have a temperature of 38°C and above
- if you experience redness/swelling around the incision site
- if you have discharge from the wound or around the drain site
- if you have increased pain at the incision site
- if your skin separates at the incision site

Drain care

Soft flexible tube drains are placed under the skin at the time of surgery. These help to remove blood and other fluids that accumulate at the site of surgery. You may be discharged from the hospital with the tube drain in-situ. The nurse in the ward will teach you how to take care of it at home and to keep a record of the drainage. It will be removed in the clinic when the drainage is minimal. This usually takes five to seven days.

Medication

Continue with your routine medication as prescribed by the doctor.

Diet

There are no restrictions to your diet unless advised by your doctor.

Activity and Exercise

On the first or second day after surgery, you need to perform certain exercises to maintain optimal movement to prevent stiffness of the affected shoulder. You will be given a pamphlet on a set of arm exercises to perform. Avoid strenuous exercises and activities that may leave you tired during the first few weeks after your discharge from the hospital. Your Breast Care Nurse will discuss with you the types of exercises you can and should perform.

REHABILITATION

You may experience stiffness and tightness around the chest and armpit areas after surgery. This may restrict the full range of movement of your arm. Hand and arm exercises are important in helping you to regain full motion and strength.

Your hand and arm on the same side of the operation may swell slightly if your surgery involves removal of the lymph nodes. The swelling does not mean that cancer has recurred. Lymph nodes drain fluid from the arm and their removal may cause fluid to collect in the armpit and the arm on the operated side. This condition is known as lymphoedema. In some patients, the swelling of the arm is persistent but usually does not affect the function of the arm.

You may be referred to a physiotherapist or occupational therapist who is specially trained in treating lymphoedema. Programmes may include exercise, manual lymphatic drainage (a special massage technique), skin care and compression bandaging to help reduce the swelling.

Lymph nodes also contain cells which fight infection. Your arm on the operated side is also more prone to infection as a result of lymph node removal. Therefore, you have to take extra care to protect the hand and arm on the operated side from injury.

Caring for your arm and hand

- Use sun block to decrease your risk of sunburn
- Avoid taking blood, measuring of blood pressure or having injections on the affected arm.
- Avoid wearing tight-fitting jewellery, watch and clothing.
- Use alcohol-free moisturiser to prevent skin cracks.
- Avoid accidental cuts when trimming or cutting fingernails.
- When you have a minor cut, or burn on your arm or hand on the operated side:
  - Wash the area thoroughly with soap and water to keep it clean.
  - Apply antibacterial cream and cover with a clean dressing.
  - Change the dressing once or twice a day.
  - See a doctor if the wound does not improve within 3 days.
  - See a doctor or call the Breast Care Nurse immediately if there is redness, pain or increased swelling.
- Avoid extreme temperature changes when bathing or washing dishes.

Physical appearance

After a mastectomy, you can maintain your physical appearance either by wearing a prosthesis (called a breast form), or undergoing breast reconstruction. Discuss with your doctor or Breast Care Nurse the many options available.

Many women choose not to have breast reconstruction after mastectomy. Some make this decision because they want to avoid extra surgery. For others, it is because they are comfortable with their appearance and body image.

Breast forms or prostheses are used to maintain appearance and sense of balance and to relieve the strain on posture that may occur after a mastectomy. They are available in a variety of sizes, shapes and colours. Some are designed to fit into a special bra. Others can be attached securely to your chest using a special adhesive.

The Breast Care Nurse will give you an appointment for prosthesis fitting about six weeks after the surgery. In the meantime, you may use soft padding underneath your bra while your wound heals. When choosing a breast form, it is important that it has the same size and weight as your other breast. This will help maintain your posture and prevent back strain.

FOLLOW-UP CARE

You will need to go for regular follow-up by the doctor after your treatment. Because you are at an increased risk of developing breast cancer again, the doctor will monitor you closely. This will include physical examination of the chest, underarm, neck, and the other breast. You may also need periodic mammograms and blood tests. Inform your doctor if you discover the following:

- Changes in your surgical scar and treated area
- Any unusual changes in the treated or other breast
- Swollen lymph glands
- Bone pain
- Persistent cough
- Difficulty in breathing
- Jaundice

FREQUENTLY ASKED QUESTIONS

Hormone Therapy for Breast Cancer

1. **Why do I need hormone therapy?**
   Normal female hormones like oestrogen may promote growth of normal healthy breast tissue, but may also accelerate the growth and recurrence of certain breast cancers. Drugs that slow breast cancer growth by interfering with normal female hormone action are generically called hormone therapy. Some breast cancers need the hormone oestrogen to grow. Hormone therapy can prevent your body's natural hormones from activating growth or spread of cancer cells.

2. **What drug will I be given? What does it do?**
   The most common drug used for hormone therapy for breast cancer is the oral tablet tamoxifen, which stops the action of oestrogen.

3. **What side effects will I have and what can I do about them?**
   You may experience any of the following common side effects:

   - **Hot flushes/sweats**
     Wear a thin layer of clothing to keep cool when hot flushes occur.
   - **Vaginal irritation**
     Some women experience vaginal dryness or discharge. Notify your doctor who can recommend a non-oestrogen cream or lubricant.
   - **Irregular menstrual periods**
     Some pre-menopausal women experience irregular periods. Some women may find that once they stop taking Tamoxifen, their menstrual cycle becomes regular again.

   Other less common side effects are depression, mood swings and a slightly increased chance of developing cancer of the uterus and deep vein thrombosis. Regular gynaecological checkups are recommended.

4. **How long will I be on hormone treatment?**
   When used to treat early breast cancer, Tamoxifen is most often prescribed for 5 years. Patients with advanced disease may take it for varying lengths of time depending on their response to treatment.

5. **Why do some women need hormone treatment while others do not?**
   Many breast cancers have 'receptors' for oestrogen and progesterone. Receptors are proteins on the surface of the cancer cells to which specific hormones (e.g. oestrogen or progesterone) attach themselves. If the cancer has oestrogen or progesterone receptors, it is likely that hormonal treatment would benefit this group of women.

6. **Will hormone treatment affect sexual activity?**
Some women will continue with their usual sexual activity while others find their libido (sexual drive) decreased. If you experience a loss of interest in sex, do not be alarmed, as this is not unusual. Talk about your fears and worries with your partner. Your doctor or the nurse can also refer you to a trained counsellor and therapist to help you overcome such fears and worries.

Sexuality

7. **Would my doctor or nurse be able to help me with my concerns of sexual relationship?**
You can discuss your concerns with your doctor or nurse. If they are unable to help you, they can refer you to someone who can.

8. **Can I become pregnant when I have breast cancer?**
The belief is that changing levels of female hormones during pregnancy could encourage the recurrence of breast cancer. However there is no data to show that this is so. Some doctors will advise you to wait one or two years after completion of treatment before attempting to conceive. Nevertheless, do discuss with your doctor before planning to conceive.

9. **Will I still have my menstrual periods after breast cancer treatment?**
Treatment with chemotherapy and hormonal therapy may cause changes in your menstrual cycle, resulting in irregular menstruation or early menopause. If you are already reaching menopause, your menstrual periods may not return.

Complementary or Alternative Therapy

10. **What are complementary and alternative therapies for cancer?**
Complementary therapy is therapy used in addition to conventional treatments such as surgery, chemotherapy and radiation therapy. It is called alternative when it is used instead of conventional cancer treatment.

11. **Can I use complementary therapy while I am undergoing conventional treatment?**
Many people use complementary therapy while they are having conventional treatment and this usually does not cause problems. However, it is important to tell your doctor what you are doing or intending to do. This way, you can ensure that whatever therapy you are undergoing or considering will not interfere with your conventional treatment.

12. **What should I do if I am considering alternative therapy instead of conventional medical treatment?**
You have the right to choose your treatment. However, do consider the risk of losing the benefits that conventional treatment offers. Do not make hasty decisions. Always discuss with your doctor and consider the pros and cons of each treatment before making a decision.

13. I read that alternative therapy can cure cancer. Is it true?

You may have read or heard of people who claimed that their cancer was cured by an alternative therapy. To date, there is no scientific evidence to show that alternative therapy alone can cure cancer. Most of these people may have had conventional treatment as well, often shortly before or at the same time as they were using alternative therapy. Conventional treatment can sometimes take weeks or months to fully work.

Most cancers show no symptoms during much of their course, but this does not mean that the cancer is under control. Sometimes, the cancer is not cured but is still present or progressing although the person feels well in the short term. This is the reason doctors wait many years before saying that a cancer is cured.

It is important to remember that people promoting unproven or alternative treatments do not publicise their failures, i.e. the many people for whom the treatment did not work, or the ones who never returned to the practitioners.

Prostheses

14. What choice of prostheses (breast forms) do I have?

There is a wide range available. The type of breast form you require will depend on your needs. It should closely simulate the weight and shape of a natural breast and your other breast. If you need advice, speak with your Breast Care Nurse.

15. Can the prosthesis be washed? How do I take care of it?

Yes, the prosthesis can be washed. Instructions on care of the prosthesis can be found in the box when you purchase one.

Arm Exercises

16. Why do I need to exercise?

You are encouraged to exercise your affected arm soon after your operation to prevent stiffness of the shoulder joint.

17. When do I start arm exercises?

It is normal to feel tired for a few days after an operation. You can start the exercises as soon as you feel strong enough. This can be as early as the first day after your operation. The sooner you start, the faster you regain your shoulder movements.

Recurrence

18. How would I know if I have a recurrence?

If you find an unusual lump or notice a new symptom, make an appointment to see your doctor. Usually, you will still be on regular follow-up with your doctor. It is important that your doctor continues to support you but not every woman will need to be monitored closely. Your doctor will be the best person to tell you how often you need to be reviewed.

Breast Reconstruction

19. When can breast reconstruction be done?

There are different opinions on this. It can be done at the time of mastectomy, some months afterwards or even years later. The timing may depend upon the type of breast cancer you have, whether you need further treatment (e.g. chemotherapy), how you feel about the loss of your breast or breasts, your general health, and other concerns such as costs. Talk over these issues with your breast surgeon and plastic surgeon until you understand his or her advice. Ask for a second opinion if you would like one.

20. Can I exercise after breast reconstruction?

It will be helpful to stay active and to exercise regularly if you can. Light exercise after surgery, such as walking, can assist in the recovery process. The amount and type of exercise will depend on what you are used to and how well you feel. It is best to discuss with your doctor about your concerns.

21. Do I need to go for regular breast screening after a reconstruction?

It is important to have regular scheduled mammograms on the opposite breast. BSE should continue. Check the remaining and the reconstructed breast at the same time each month. You will learn what is normal for you since the breast reconstruction. The reconstructed breast will feel different and the other breast may have changed too.

Breastfeeding

22. After being diagnosed with breast cancer, can I still breastfeed my baby?

You can still breastfeed your baby from the unaffected breast.

23. Can I breastfeed after lumpectomy and radiation therapy?

Yes, you can. Lumpectomy is not so extensive that it will affect your breastfeeding capacity, but radiation will. The breast treated with radiation may go through the same changes as the normal one during pregnancy, but it will produce little or no milk. You can, however, breastfeed your baby with the other breast.

24. Can I breastfeed after mastectomy?

Yes, you can still breastfeed your baby with the other breast. Frequent nursing will be necessary at first so as to build up a good supply of milk.

SUPPORTIVE CARE

A diagnosis of cancer often leads to a variety of emotions such as shock, anger, sadness, and possibly even depression. You do not have to struggle with your illness alone. Help is available to support you and your loved ones through your cancer journey. Apart from the team of doctors and health care professionals looking after you, there are other information and support services you may find useful.

Medical Social Services/ Department of Psychosocial Oncology

The Medical Social Service Department at the hospital attends to patients and their families who need emotional support, financial aid, home care, transportation or rehabilitation. You will need a doctor's referral letter to be seen by a medical social worker.

NCCS Cancer Helpline

The Cancer Helpline is a private, confidential and anonymous one-to-one information and counselling service manned by nurse counsellors. Their aim is to help you through your cancer experience. They are able to speak to you in English, Chinese or Malay. They provide information, emotional and psychological support, counselling, and linkage to health, welfare and cancer support services available in Singapore.

The nurse counsellors do not give medical advice and treatment recommendations, but may be able to assist you in clarifying your doubts and help in putting into perspective the information you may have received from your doctors. They may be contacted via telephone number 6225 5655 or via email cancerhelpline@nccs.com.sg.

TREATMENT AND SUPPORT UNITS AT NCCS

Department of Radiation Oncology

National Cancer Centre Singapore
Basement 2
Enquiry line: 6436 8600
Registration Counter: 6436 8181

Singapore General Hospital
Blk 2 basement 1
Enquiry line: 6436 8600
Registration Counter: 6321 4211

- Appointment Scheduling Unit : 6436 8088
- General Enquiries : 6436 8000
- Dept of Psychosocial Oncology : 6436 8417
- Outpatient Pharmacy Helpdesk : 6436 8091
- Cancer Helpline : 6225 5655

OTHER RESOURCES ON THE INTERNET

American Cancer Society
www.cancer.org

Cancer Care
www.cancercare.org

National Cancer Institute
www.nci.nih.gov

Cancer.Net
www.cancer.net

National Lymphedema Network
www.lymphnet.org

Susan G. Komen
ww5.komen.org

References

1. 'What you Need to Know About Breast Cancer' by the National Institute of Health, National Cancer Institute, USA.
2. 'A Woman's Guide to Breast Cancer Diagnosis and Treatment' by the California Department of Health Services, USA.
3. 'All About Early Breast Cancer' by the National Health Medical Research Cancer Centre, National Breast Cancer Centre, Australia.
4. 'Be a Survivor - Your Guide to Breast Cancer Treatment' by Vladimir Lange, M.D.
5. 'Common Breast Problems' by Cancer Education & Information Service, National Cancer Centre Singapore.
6. 'Take Charge! Older Women and Breast Health' by the Susan G. Komen Breast Cancer Foundation.

For more information on cancer, please call the

Cancer Helpline at Tel: 6225 5655
or email cancerhelpline@nccs.com.sg

MONDAYS - FRIDAYS : 8.30am to 5.30pm

SATURDAYS, SUNDAYS & PUBLIC HOLIDAYS : CLOSED (Please leave a message)

THIS IS A PUBLIC EDUCATION INITIATIVE BY:

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