

BREAST CANCER



Breast cancer is a disease where the cells of the breast multiply in an abnormal and uncontrolled way.

It occurs in both men and women, although it is uncommon in the male breast.

Breast cancer ranks second among cancer deaths in women.

There are two main types of breast cancer:

- **Ductal carcinoma**; it starts in the tubes (*ducts*) that transport milk from the breast to the nipple. Most breast cancers are of this type.
- **Lobular carcinoma**; it starts in the parts of the breast that produce milk (*lobules*)

Breast cancer may be *invasive* or *non-invasive*.

- **Invasive** means it has spread from the cells lining the milk duct or lobule, to the surrounding tissues of the breast, and/ or beyond to other adjoining parts of the body.
- **Non-invasive** means it is confined to the epithelial lining cells of the ducts or lobules and has not yet invaded other breast tissue. It is also called "cancer in situ."
- The exact cause of breast cancer is not known.

Risk Factors

The factors that increase the likelihood of an individual developing breast cancer include:-

- Age and gender; more common in women and risk increases with age. More common >45 years
- Family history of breast and gynecological cancers.
- Personal history of breast cancer, there is increased risk of recurrence or developing a new one.
- Long reproductive period – early start (menarche before age 12) and late end (menopause after age 55) of one's monthly periods.
- Nulliparity i.e. never having a child
- Having the first child at >30 years of age.
- History of having some types of non-cancerous (benign) diseases of the breast
- High fat diet
- Being overweight/obese
- Use of some types of oral contraceptive pills.
- Lack of breastfeeding
- Women who took diethylstilbestrol (**DES**)
- Hormone replacement therapy (HRT) with estrogen based formulations

Symptoms of Breast Cancer



Lump



Skin dimpling



Change in skin color or texture



Change in how the nipple looks, like pulling in of the nipple.



Clear or bloody fluid that leaks out of the nipple

<p>Lump, hard knot or thickening inside the breast or underarm area</p> <p><small>©2011 Susan G. Komen for the Cure®</small></p>	<p>Swelling, warmth, redness or darkening of the breast</p> <p><small>©2011 Susan G. Komen for the Cure®</small></p>	<p>Change in the size or shape of the breast</p> <p><small>©2011 Susan G. Komen for the Cure®</small></p>	<p>Dimpling or puckering of the skin</p> <p><small>©2011 Susan G. Komen for the Cure®</small></p>
<p>Itchy, scaly sore or rash on the nipple</p> <p><small>©2011 Susan G. Komen for the Cure®</small></p>	<p>Pulling in of your nipple or other parts of the breast</p> <p><small>©2011 Susan G. Komen for the Cure®</small></p>	<p>Nipple discharge that starts suddenly</p> <p><small>©2011 Susan G. Komen for the Cure®</small></p>	<p>New pain in one spot that does not go away</p> <p><small>©2011 Susan G. Komen for the Cure®</small></p>








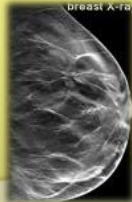

Some Symptoms of Advanced (Metastatic) Breast Cancer


- ▶ Shortness of breath/persistent dry cough not associated with other health issues, or a dull pain in the back or side. (lung metastases) - The lungs are a primary site for breast cancer spread.
- ▶ Back pain due to vertebral bones involvement.
- ▶ Weight loss and loss of appetite (liver metastases)
- ▶ Headaches, neurological pain or weakness (brain metastases)

Breast screening methods

Screening Methods

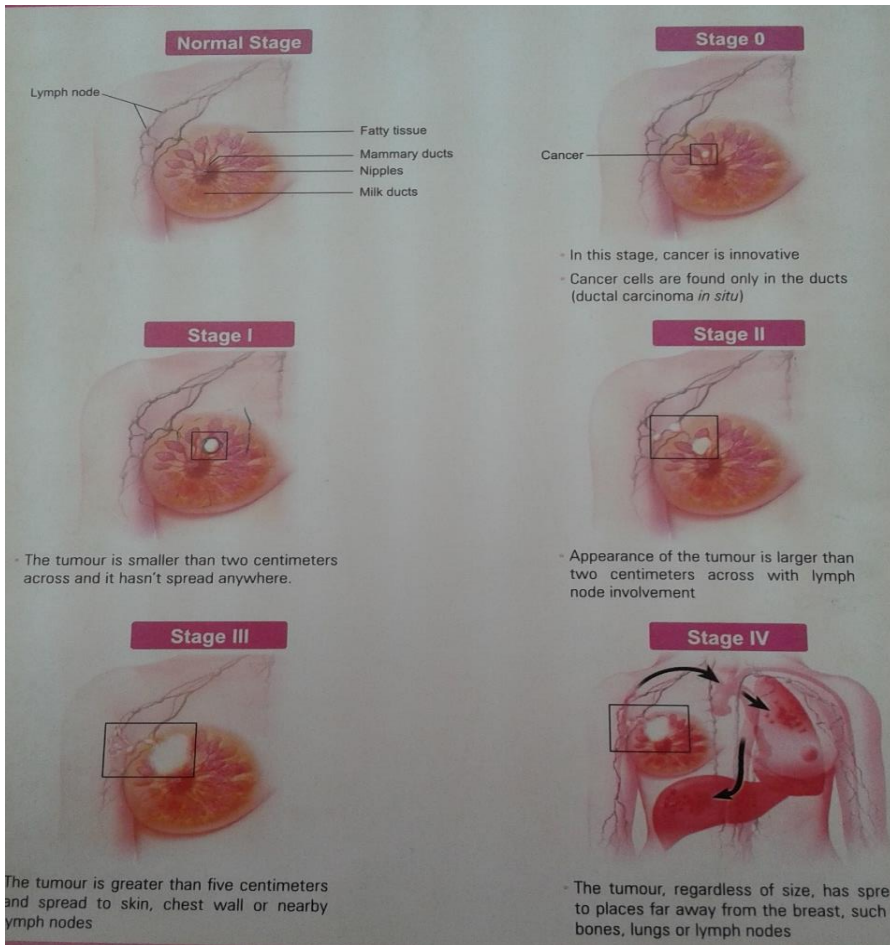
-  X-ray mammography
-  Ultrasound
-  Magnetic Resonance Imaging (MRI)
-  Positron Emission Mammography (PEM)



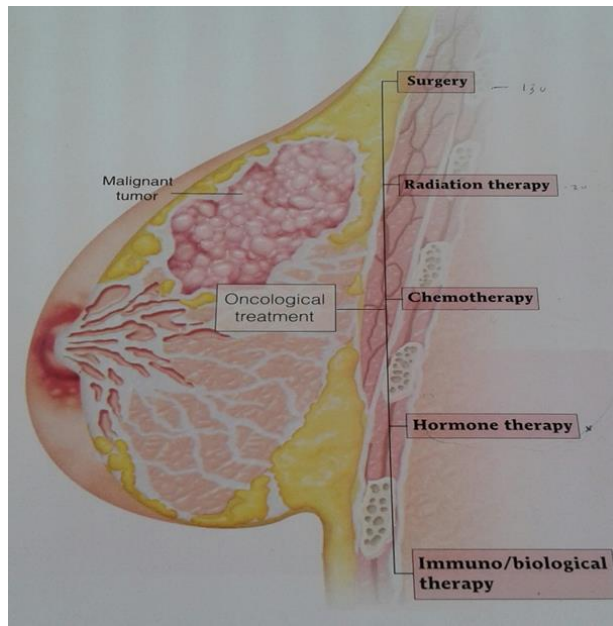
Breast Cancer Staging

Stage 0; same as “cancer in situ,” meaning the cancer has not spread past the ducts or lobules of the breast (the natural boundaries)

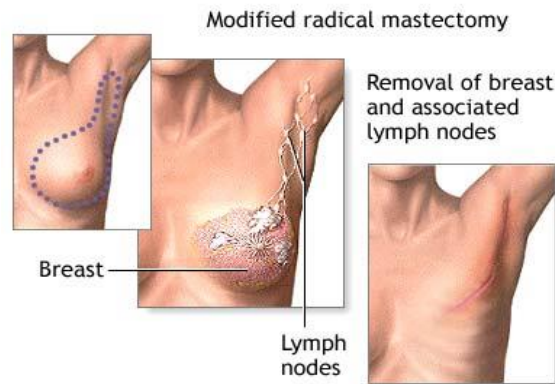


Treatment Methods for Breast Cancer

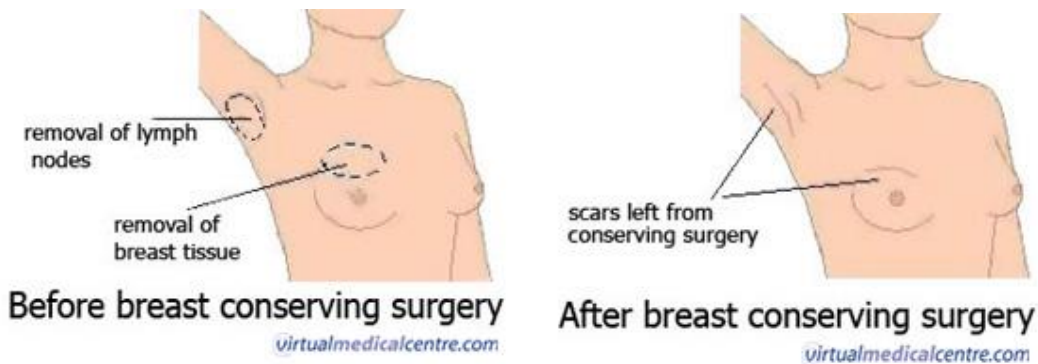
Treatment includes a combination of modalities as shown below.



- Surgery
 - Modified Radical mastectomy is the more common treatment.



- Breast conserving treatment is indicated in certain cases. This consists of the resection of the primary tumour with adjacent rim of normal breast tissue, often followed with high quality radiotherapy.



- Adjuvant Therapy; this is treatment given in addition to surgery to reduce the risk of recurrence. It includes:-
 - Radiotherapy
 - Chemotherapy
 - Hormonal therapy

POST MASTECTOMY EXERCISES.

Immediately after operation you are expected to do the following exercises. They can be performed initially either in bed or in sitting or standing position even with the drainage bottle. To begin with perform the exercises **five times thrice a day**, gradually to increase to **15 six times a day**. Thus, by the 7th day your shoulder movement should be fully restored. Continue the exercises for one or two months. Some exercises should not be done until drains and sutures (stitches) are removed.

The week after surgery

These tips and exercises listed below should be done for the first 3 to 7 days after surgery. Do not begin until you get the OK from your doctor.

- Use your affected arm (on the side where your surgery was) as you normally would when you comb your hair, bathe, get dressed, and eat.
- Lie down and raise your affected arm above the level of your heart for 45 minutes. Do this 2 or 3 times a day. Put your arm on pillows so that your hand is higher than your wrist and your elbow is a little higher than your shoulder. This will help decrease the swelling that may happen after surgery.
- Exercise your affected arm while it is raised above the level of your heart by opening and closing your hand 15 to 25 times. Next, bend and straighten your elbow. Repeat this 3 to 4 times a day. This exercise helps reduce swelling by pumping lymph fluid out of your arm.
- Practice deep breathing exercises (using your diaphragm) at least 6 times a day. Lie down on your back and take a slow, deep breath. Breathe in as much air as you can while trying to expand your chest and abdomen (push your belly button away from your spine). Relax and breathe out. Repeat this 4 or 5 times. This exercise will help maintain normal movement of your chest, making it easier for your lungs to work. Do deep breathing exercises often.
- Do not sleep on your affected arm or lie on that side.

Getting started: general guidelines

- You will feel some tightness in your chest and armpit after surgery. This is normal, and the tightness will decrease as you do your exercises.
- Many women have burning, tingling, numbness, or soreness on the back of the arm and/or on the chest wall. This is because the surgery can irritate some of your nerves. These feelings might increase a few weeks after surgery but they eventually go away.
- It may be helpful to do the exercises after a warm shower when muscles are warm and relaxed. Wear comfortable, loose clothing when doing the exercises.
- Do the movements slowly until you feel a gentle stretch. Hold each stretch at the end of the motion and slowly count to 5. It is normal to feel some pulling as you stretch the skin and muscles that have been shortened because of the surgery. Do not bounce or make any jerky movements when doing any of the exercises. You should not feel pain as you do them, only gentle stretching.
- Be sure to take deep breaths, in and out, as you do each exercise.

Exercises to do while lying down

Do these exercises on a bed or the floor. Lie on your back with your knees and hips bent and your feet flat.

Wand exercise (Figure 1)

This exercise helps increase the ability to move your shoulders forward. You will need a broom handle, yardstick, towel, or other stick-like object to use as the wand in this exercise.

- Hold the wand across your belly in both hands with your palms facing up.
- Lift the wand up over your head as far as you can. Use your unaffected arm to help lift the wand until you feel a stretch in your affected arm.



- Hold for 5 seconds. Lower arms and repeat 5 to 7 times.



Figure 1

Elbow winging (Figure 2)

This exercise helps increase the movement in the front of your chest and shoulder. It may take many weeks of regular exercise before your elbows will get close to the bed or floor.

- Clasp your hands behind your neck with your elbows pointing toward the ceiling.
- Move your elbows apart and down toward the bed or floor. Repeat 5 to 7 times.

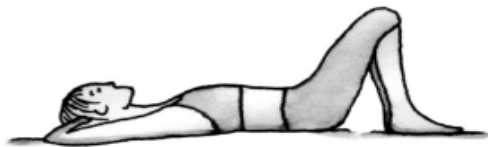


Figure 2

Exercises to do while sitting up

Shoulder blade stretch (Figure 3)

This exercise helps increase your shoulder blade movement.

- Sit in a chair very close to a table with your back against the back of the chair. Place the unaffected arm on the table with your elbow bent and palm down. Do not move this arm during the exercise.
- Place the affected arm on the table, palm down, with your elbow straight. Without moving your trunk, slide the affected arm forward, toward the opposite side of the table. You should feel your shoulder blade move as you do this. Relax your arm and repeat 5 to 7 times.



Figure 3

Shoulder blade squeeze (Figure 4)

This exercise also helps increase shoulder blade movement.

- Facing straight ahead, sit in a chair in front of a mirror. Do not rest against the back of the chair. Your arms should be at your sides with your elbows bent.
- Squeeze your shoulder blades together, bringing your elbows behind you. Keep your shoulders level as you do this. Do not lift your shoulders up toward your ears. Return to the starting position and repeat 5 to 7 times.

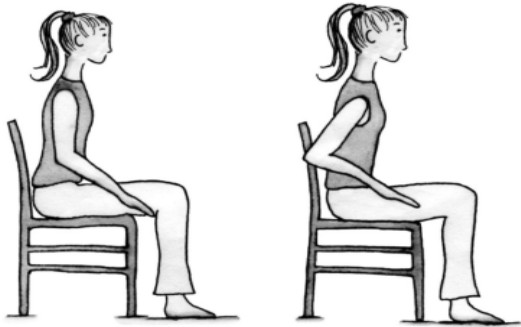


Figure 4

Side bending (Figure 5)

This exercise helps increase movement of your trunk and body.

- Sit in a chair and clasp your hands together in front of you. Lift your arms slowly over your head, straightening your arms.
- When your arms are over your head, bend your trunk to the right. Bend at your waist and keep your arms overhead. Return to the starting position and bend to the left. Repeat 5 to 7 times.

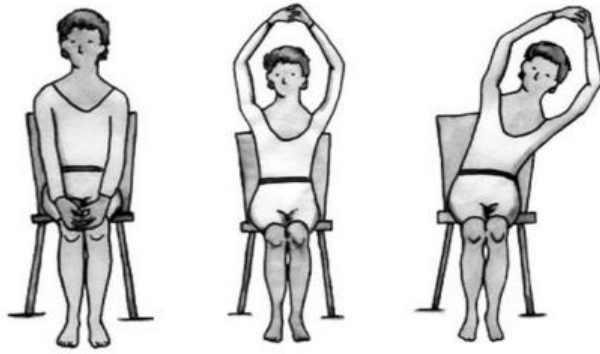


Figure 5

Exercises to do while standing

Chest wall stretch (Figure 6)

This exercise helps stretch your chest.

- Stand facing a corner with your toes about 8 to 10 inches from the corner. Bend your elbows and put your forearms on the wall, one on each side of the corner. Your elbows should be as close to shoulder height as possible.
- Keep your arms and feet in place and move your chest toward the corner. You will feel a stretch across your chest and shoulders. Return to the starting position and repeat 5 to 7 times. You may find it more comfortable to stretch one arm at a time. Be sure you keep your shoulders dropped far away from your ears as you do this stretch.



Figure 6

Shoulder stretch (Figure 7)

This exercise helps increase the mobility in your shoulder.

- Stand facing the wall with your toes about 8 to 10 inches from the wall. Put your hands on the wall. Use your fingers to "climb the wall," reaching as high as you can until you feel a stretch. Return to the starting position and repeat 5 to 7 times.
- You may find it easier to raise one arm at a time. Be sure you keep your shoulders dropped far away from your ears as you raise your arms.

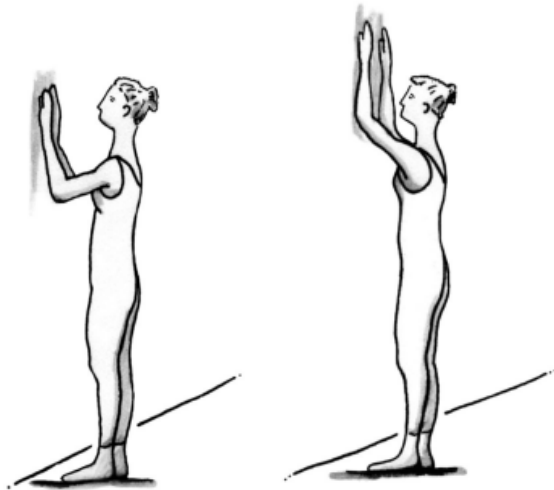


Figure 7

These exercises will strengthen the muscles on the operated side and enable you to gradually resume your activities of daily life. The completeness and grace of the body can be restored by wearing a prosthesis which helps you restore the body balance, provides protection to the operation site and restores self-confidence.

The breast prosthesis initially for 4-6 weeks or until 2 weeks after radiation should be a simple breast shaped cotton pad as the area is very tender. To learn to make one you should consult the occupational therapist after all the stitches have been removed.

For the fitting of prosthesis one must come in person and come with the right kind of brassier. The brassier should have a firm elastic belt under the bust and the cups should be joined at the centre. Prosthesis can only be fitted once the wound has completely healed.

After mastectomy the patient must undergo radiation and/or chemotherapy to control the disease effectively.

Things to keep in mind

Start exercising slowly and increase it as you are able. Stop exercising and talk to your doctor right away if you:

- Get weaker, start losing your balance, or start falling
- Have pain that gets worse
- Have new heaviness, aching, tightness, or other strange sensations in your arm
- Have unusual swelling or swelling gets worse
- Have headaches, dizziness, blurred vision, new numbness, or tingling in your arms or chest.

Lifelong precautions.

1. When trimming cuticles, take extra care not to tear hangnails and never pick on them.
2. If prone to dermatitis or chapped skin, wear rubber gloves while doing dishes and apply hand cream frequently.
3. When reaching into hot oven be sure you have your hand and arm well protected by oven mitt.

4. Use a thimble while sewing to avoid pin-pricks.
5. Wear heavy gloves when gardening and handling thorny plants.
6. Wear gloves when using cleaner's bleaches and other irritating chemicals.
7. Apply insect repellent when going to infested areas.
8. Protect your arm and chest from sunburns.
9. Wear loose jewelry/ wristwatch in the affected arm.
10. Avoid wearing clothes with tight elastic sleeve.
11. Do not permit injections, vaccinations or blood samples to be done on the affected arm unless specifically by a doctor who knows you have had your lymph nodes removed or breast surgery.
12. If you cut, burn or pierce your skin wash using an antiseptic and apply a bandage.

How Can You Protect Yourself?

- The best protection is by performing monthly examination of the breasts and reporting any abnormalities to a health personnel trained in breast health.
- Women aged >40 years should have a regular Clinical Breast Examination (CBE) and screening mammograms as directed.
- Women in their 20s and 30s should have a clinical breast exam (CBE) as part of a regular health examination by a health professional, preferably every 2 years.
- More frequent exams are recommended for high risk patients.
- Maintaining a healthy weight, being physically active and limiting a sedentary lifestyle.
- Limiting alcohol use and breastfeeding can help lower the risk