

**LESSON PLAN ON**  
**BREAST CANCER**  
**ICT ENABLED TEACHING**

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ICL ENWBIED LEWCHING

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TESSOM BYWION

Name of the Institution : Narayana college of Nursing  
Programme : BSc Nursing  
Year : III Year  
Subject : Medical surgical nursing - I  
Unit : Unit - VIII  
Topic : BREAST CANCER  
Date : 26-9-2023  
Time : 10-11 Am  
Duration : 45 Minutes  
Venue : Narayana college of Nursing, Lecture hall  
Previous knowledge of the student : Students may have some knowledge regarding anatomy and physiology of Breast  
Method of teaching : Lecture cum Discussion  
A.V aids : LCD, White board, Leaflet, Handout, Chart, PPT

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### **GENERAL OBJECTIVES**

The students will be able to gain in-depth knowledge regarding carcinoma of breast and its management and develop desirable attitude and skills in providing care to the patients with carcinoma of breast and quality of care in various health care settings

### **SPECIFIC OBJECTIVES**

At the end of the class, the student will be able to.,

- review of anatomy and physiology of breast
- define breastcancer
- enlist the risk factors of breast cancer
- describe the stages of breast cancer
- explain the pathophysiologyof breast cancer
- list out the clinical manifestations of breast cancer
- explore the diagnostic findings of breast cancer
- describe the medical, surgical and nursing managements of breast cancer

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Sl. no	Time	Specific objective	Content	Teachers activity	Learners activity	AV aids	Evaluation
1	2 min	Introduce the topic  2	<p><b>BRINGING BACK EDUCATION IN TO LIFE</b></p> <p>Breast disease, although it occurs in men, it is predominantly a problem of women. Over the course of a lifetime, 1 in 7 women will be diagnosed with breast cancer. Many breast cancer centers evolved with the major goals of educating public about risk-factor reduction, the providing breast examinations, instructing women in Breast self examination techniques, initiating referrals. The empowerment and education of women to take an active role in promoting their own personal breast health care is a positive outgrowth of breast cancer centers and a major component of the nursing role</p>	Explanation	Listening	white board	

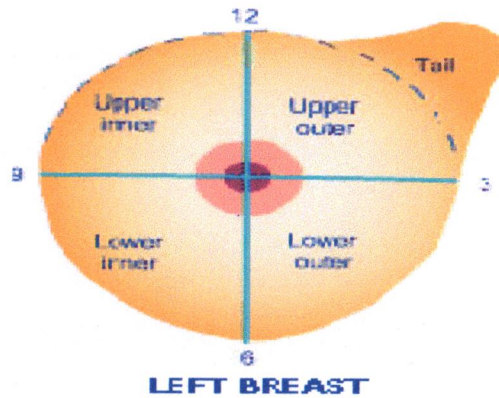
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2	5 min	review the anatomy and physiology of the breast	<p><b>Review of the anatomy and Physiology of breast</b></p> <p><b>Anatomy of the Breast</b></p> <p>The breasts or mammary glands are accessory glands of the female reproductive system. Male and female breasts mature comparably until puberty, when the female estrogen and other hormones initiate breast development. This development usually occurs from 10-16 years of age, although the range can vary from 9-18 years.</p> <p>According to TANNER, stages of breast development are.,</p> <ul style="list-style-type: none"> <li>• Stage 1 : describes Prepubertal breast</li> <li>• Stage 2 : Breast budding, the first sign of puberty in a female</li> <li>• Stage 3 : Involves further enlargement of breast tissue and the areola</li> <li>• Stage 4 : Occurs when the nipple and areola form a secondary mound on top of the breast</li> <li>• Stage 5 : Continued development of a larger breast with a single contour</li> </ul> <p><b>LOCATION OF THE BREAST</b></p> <p>The breasts are located between the second and sixth ribs over the pectoralis muscle from the sternum to the mid axillary line. An area of</p>	Discussing	Listening and recalling	Chart	Where is the location of breast
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breast tissue, called to tail of Spence, extends into the axilla

### QUADRANTS OF THE BREAST



The breast is divided into four quadrants by the mid axillary line and the mid clavicular lines as follows.,

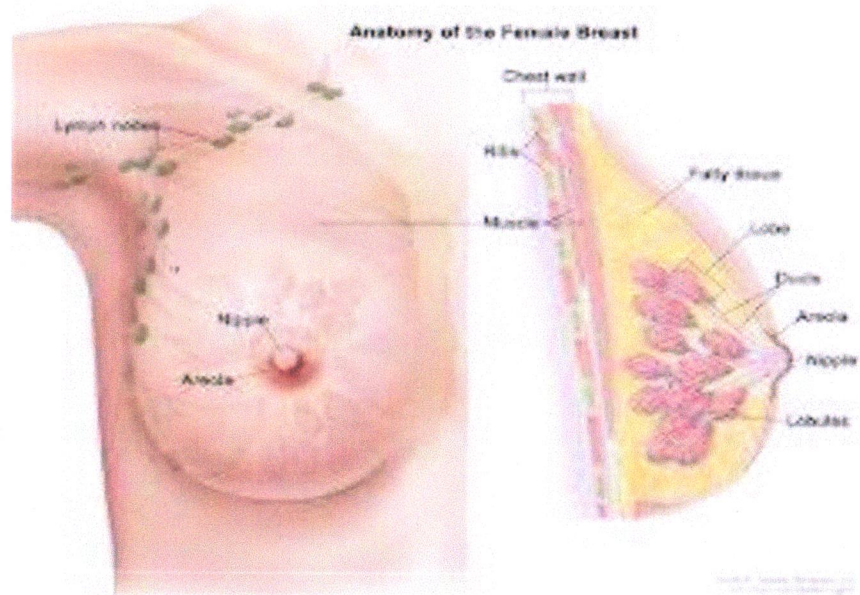
Upper outer quadrant (Present laterally to the body surface)

Upper inner quadrant (Present medially to the body surface)

Lower outer quadrant(Present laterally to the body surface)

Lower inner quadrant(Present medially to the body surface)

## STRUCTURE OF THE BREAST



The mammary glands consist of ..

- Glandular tissue
- Fibrous tissue
- Fatty tissue
- Each breast consists of about 15-20 lobes of glandular tissue, each lobe being made up of a number of lobules that radiate around the nipple
- The lobules consists of a cluster of alveoli that open into small



ducts, and these unite to form large excretory ducts , called lactiferous ducts.

- The lactiferous ducts converge towards the centre of the breast where they form dilatations or reservoirs for milk
- Leading from each dilatation, or lactiferous sinus is a narrow duct that opens on to the surface at the nipple
- Fibrous tissue supports the glandular tissue and ducts
- Fat covers the surface of the gland and is also found between the lobes.
- The nipple is a conical eminence at the centre of the breast surrounded by a pigmented area, the areola
- On the surface of the areola are numerous sebaceous glands (Montgomery's tubercles), which lubricate the nipple during lactation

**BLOOD SUPPLY, LYMPH DRAINAGE AND NERVE SUPPLY**

**Arterial supply :** From the thoracic branches of the axillary arteries and from the internal mammary and intercoastal arteries

**Venous drainage :** This is formed by an anastomotic circle round the base of the nipple from which branches carry the venous blood to the circumference, and end in the axillary and mammary veins

**Lymph drainage :** Into the superficial axillary lymph vessels and nodes. Lymph may drain into the internal mammary nodes if the superficial

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route is obstructed

**Nerve supply** :Supplied by branches from the 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> thoracic nerves, which contain sympathetic fibers.

### **PHYSIOLOGY OF THE BREAST**

The mammary glands are only active during late pregnancy and after childbirth, when they produce milk (lactation).

The essential function of the mammary glands are the synthesis, secretion and ejection of the milk;called lactation.

Milk projection is stimulated largely by the hormone prolactin,

From the anterior pituitary, with contributions from progesterone and estrogens. The ejection of milk is stimulated by oxytocin, which is released from the posterior pituitary in response to the sucking of an infant on the mother's nipple.

### **BLOCK BASED LEARNING**

Block based learning is a dedicated learning of one subject at a time; focuses on more immersed learning. For Ex: Teaching /learning module is prepared for one topic in one unit

Programme : B.Sc (N)

Year : III Year

Subject : Medical Surgical Nursing II

Unit : VI

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3	1 min	define breast cancer	<p><b>BREAST CANCER</b></p> <p><b>DEFINITION</b></p> <p>Breast cancer is a type of cancer originating from breast tissue, most commonly from the inner lining of milk ducts or the lobules that supply the ducts with milk.</p> <p style="text-align: center;">- Lewis</p>	Defining	Listening and taking down notes	Chart	Define breast cancer
4	1 min	state the incidence of breast cancer	<p><b>INCIDENCE</b></p> <p>Worldwide, breast cancer accounts for 22.9% of all cancers (excluding non-melanoma skin cancers) in women. In 2008, breast cancer caused 458,503 deaths worldwide (13.7% of cancer deaths in women). Breast cancer is more than 100 times more common in women than in men, although men tend to have poorer outcomes due to delays in diagnosis.</p> <p>Prognosis and survival rates for breast cancer vary greatly depending on the cancer type, stage, treatment, and geographical location of the patient. Survival rates in the Western world are high for example, more than 8 out of 10 women (84%) in England diagnosed with breast cancer survive for at least 5 years. In developing countries, however, survival rates are much poorer.</p>				

	2min	enlist the risk factors of breast cancer	<p><b>Frequency and occurrence of breast cancer according to location</b></p> <p>Upper outer quadrant – 48%</p> <p>Upper inner quadrant – 15%</p> <p>Lower outer quadrant – 11%</p> <p>Lower inner quadrant – 6%</p> <p>Nipple and areolar region – 17%</p> <p><b>RISK FACTORS</b></p> <p>The cause is idiopathic; but risk factors may include are.,</p> <ul style="list-style-type: none"> <li>• <b>Age and gender</b> - risk of developing breast cancer increases as one get older. Most advanced breast cancer cases are found in women over age 50. Women are 100 times more likely to get breast cancer than men.</li> <li>• <b>Family history of breast cancer</b> -have a higher risk for breast cancer if one is a close relative who has had breast, uterine, ovarian, or colon cancer. About 20 - 30% of women with breast cancer have a family history of the disease.</li> <li>• <b>Genes</b> -- Some people have genes that make them more likely to develop breast cancer. The most common gene defects are found in the BRCA1 and BRCA2 genes. These genes normally produce proteins that protect you from cancer. If a parent passes a</li> </ul>	Listing down	Taking notes	Hand out	List out the risk factors of breast cancer
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defective gene, offspring is at increased risk for breast cancer. Women with one of these defects have up to an 80% chance of getting breast cancer sometime during their life.

- **Menstrual cycle** -- Women who got periods early (before age 12) or went through menopause late (after age 55) have an increased risk for breast cancer.

Other risk factors include:

- **Alcohol use** -- Drinking more than 1 - 2 glasses of alcohol a day may increase risk for breast cancer.
- **Childbirth** -- Women who have never had children or who had them only after age 30 have an increased risk for breast cancer. Being pregnant more than once or becoming pregnant at an early age reduces risk of breast cancer.
- **DES** -- Women who took diethylstilbestrol (DES) to prevent miscarriage may have an increased risk of breast cancer after age 40. This drug was given to the women in the 1940s - 1960s.
- **Hormone replacement therapy (HRT)** -- leads to higher risk for breast cancer with received hormone replacement therapy with estrogen for several years or more.
- **Obesity** -- Obesity has been linked to breast cancer, although

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	1 min	enumerate TNM classification and stages of breast cancer	<p>this link is controversial. The theory is that obese women produce more estrogen, which can fuel the development of breast cancer.</p> <ul style="list-style-type: none"> <li>• <b>Radiation</b> -- If one received radiation therapy as a child or young adult to treat cancer of the chest area, one may have a much higher risk for developing breast cancer. The younger one started such radiation and the higher the dose, the higher ones risk -- especially if the radiation was given during breast development.</li> </ul> <p><b>TNM CLASSIFICATION OF BREAST CANCER</b></p> <p><b>Primary tumour (T)</b></p> <ul style="list-style-type: none"> <li>• T0 : NO evidence of primary tumour</li> <li>• Tis : Carcinoma in situ</li> <li>• T1 : Tumor &lt;2 cm</li> <li>• T2 : Tumor 2-5 cm</li> <li>• T3 : Tumor &gt;5cm</li> <li>• T4 : Extention to chest wall</li> </ul> <p><b>Regional lymph nodes (N)</b></p>	Explaining	Listening	LCD	What are the stages of breast cancer
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- N0 : No tumor in regional lymph nodes
- N1 : Metastasis to movable ipsilateral nodes
- N2 : Metastasis to matted or fixed ipsilateral nodes
- N3 : Metastasis to ipsilateral internal mammary nodes

**Distant Metastasis (M)**

- M0 : No distant metastasis
- M1 : Distant metastasis

**STAGING OF BREAST CANCER**

**Early stage or stage 0 breast cancer** : It is when the disease is localized to the breast with no evidence of spread to the lymph nodes (carcinoma in situ).

**Stage 1 breast cancer**: The cancer is two centimeters or less in size and it hasn't spread anywhere.

**Stage 2A breast cancer** : It is a tumor less than two centimeters across with lymph node involvement, or a tumor that is larger than two (but less than five) centimeters across without underarm lymph node involvement.

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**Stage 2B** : It is a tumor that is greater than five centimeters across without lymph node involvement, or a tumor that is larger than two but less than five centimeters across with lymph node involvement. Locally advanced breast cancer (metastatic) results after cancer cells spread to the lymph nodes.

**Stage 3A breast cancer** : It is also called locally advanced breast cancer. The tumor is larger than five centimeters and has spread to the lymph nodes under the arm, or a tumor that is any size with involvement of 4-9 axillary lymph nodes.

**Stage 3B breast cancer** : It is a tumor of any size that has spread to the skin, chest wall, or internal mammary lymph nodes (located beneath the breast and inside the chest). Inflammatory breast cancer falls into this category

**Stage 3C breast cancer** : It is a tumor of any size that has spread to more than 10 axillary lymph nodes.

**Stage 4 breast cancer** : It is defined as a tumor, regardless of size, that has spread to places far away from the breast, such as bones, lungs, liver, brain, or distant lymph node

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5min	explain the pathophysiology of breast cancer	<p><b>PATHOPHYSIOLOGY</b></p> <p>Etiology/risk factors</p> <p style="text-align: center;">↓</p> <p>Undesirable Gene mutations</p> <p style="text-align: center;">↓</p> <p>Irrational signals to the cells for the cell division</p> <p style="text-align: center;">↓</p> <p>Abnormal proliferation of epithelial cells in ductal or lobular tissue</p>	Clarifying doubts	Asking doubts	Chart	Expl;ain the pathophysiology of breast cancer
4min	List out the clinical manifestations of breast cancer	<p>Carcinoma of breast</p> <p style="text-align: center;">↓</p> <p><b>CLINICAL MANIFESTATIONS</b></p> <p>Early breast cancer usually does not cause symptoms. This is why regular breast exams are important. As the cancer grows, symptoms may include:</p> <ul style="list-style-type: none"> <li>• Breast lump or lump in the armpit that is hard, has uneven edges, and usually does not hurt</li> <li>• Change in the size, shape, or feel of the breast or nipple -- for example, redness, dimpling of skin , edemaetc</li> <li>• Peau'd' orange- puckering that presents orange peel appearance</li> </ul>	Asking questions	Answering	LCD	List out any three clinical features of breast cancer

	8min	Explore the diagnostic findings of breast cancer	<p>of the skin</p> <ul style="list-style-type: none"> <li>• Retraction of nipple</li> <li>• Fluid coming from the nipple -- may be bloody, clear to yellow, green, and look like pus</li> <li>• Infiltration and induration of the overlying skin</li> </ul> <p>Symptoms of advanced breast cancer may include:</p> <ul style="list-style-type: none"> <li>• Bone pain</li> <li>• Breast pain or discomfort</li> <li>• Skin ulcers</li> <li>• Swelling of one arm (next to the breast with cancer)</li> <li>• Weight loss</li> </ul> <p><b>ASSESSMENT AND DIAGNOSTIC FINDINGS</b></p> <p><b>HealthHistory</b> : The general health assessment, includes</p> <ul style="list-style-type: none"> <li>➤ History of medical disorders and previous surgeries</li> <li>➤ Family history of cancer</li> <li>➤ Gynaecological and obstetric history</li> <li>➤ Past and present use of contraceptives</li> <li>➤ Hormone therapy or fertility treatments</li> </ul>	Discussing	Active participation	Hand out	Name any four diagnostic tests of breast cancer?
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- Social habits ( smoking, drinking alcohol etc)
- Psychosocial aspects such as marital status , occupation
- Focussed questions pertaining to the breast disorder include ;  
onset of disorder, length of time, any palpable mass, redness ,  
swelling, nipple discharge or skin changes

**Physical examination**

Inspection : Inspect for size and symmetry of the breasts, skin is inspected for venous pattern, thickening or edema and pitting, nipple retraction, discharge from the nipple, peau'd'orange

Palpation : palpate the clavicular and axillary areas for lymph node enlargement and the breasts for the tumor growth

**Mammography**

It is a breast imaging technique that that takes about 15 min to perform in a hospital radiology department and independent imaging center. It can detect non-palpable lesions and assist in diagnosing palpable masses

**Galactography**

It is a diagnostic procedure that involves injection of less than 1 ml of

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radioopaque material through a cannula inserted into a ductal opening on the areola, which is followed by a mammogram. It is performed to evaluate an abnormality within the duct when the patient has bloody nipple discharge on expression, spontaneous nipple discharge or a solitary dilated duct noted on mammography

### **Ultrasonography**

It is used as a diagnostic adjunct to mammography to help distinguish fluid-filled cysts from other lesions

### **Magnetic Resonance Imaging**

It is an adjunct to mammography. Useful in patients with proven breast cancer when assessing for multifocal(more than one tumor in same quadrant) or multicentric(more than one tumor in different quadrants)disease,chest wall involvement, tumor recurrence or response to chemotherapy

### **Procedures for Tissue analysis**

- Percutaneous biopsy : done on outpatient basis
- Surgical biopsy : performed using local anaesthesia

	8min	Describe the medical, surgical, and nursing management	<p><b>MEDICAL MANAGEMENT</b></p> <p><b>1.Radiation therapy</b></p> <p>Radiotherapy is given after surgery to the region of the tumor bed and regional lymph nodes, to destroy microscopic tumor cells that may have escaped surgery. It may also have a beneficial effect on tumor microenvironment. Radiation therapy can be delivered as external beam radiotherapy or as brachytherapy (internal radiotherapy).</p> <p>Brachytherapy (from the Greek word βραχυςbrachys, meaning "short-distance"), also known as internal radiotherapy, sealed source radiotherapy, curietherapy or endocurietherapy, is a form of radiotherapy where a radiation source is placed inside or next to the area requiring treatment. Brachytherapy is commonly used as an effective treatment for cervical, prostate, breast, and skin cancer and can also be used to treat tumours in many other body sites. Brachytherapy contrasts with unsealed source radiotherapy in which a therapeutic radioisotope is injected into the body to chemically localize to the tissue which requires destruction. It also contrasts to EBRT, in which high-energy x-rays (or occasionally gamma-rays from a radioisotope like cobalt-60) are</p>	Explaining	Listening	LCD	What is the surgical; management of breast cancer?
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		<p>directed at the tumour from outside the body. Brachytherapy instead involves the precise placement of short-range radiation-sources (radioisotopes) directly at the site of the cancerous tumour. These are enclosed in a protective capsule or wire which allows the ionizing radiation to escape to treat and kill surrounding tissue, but prevents the charge of radioisotope from moving or dissolving in body fluids.</p>				
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External beam radiotherapy or teletherapy is the most common form of radiotherapy. The patient sits or lies on a couch and an external source of radiation is pointed at a particular part of the body. In contrast to internal radiotherapy (brachytherapy), in which the radiation source is inside the body, external beam radiotherapy directs the radiation at the tumour from outside the body

Conventionally radiotherapy is given after the operation for breast cancer. Radiation can also be given at the time of operation on the breast cancer- intraoperatively Radiation can reduce the risk of recurrence by 50–66% (1/2 – 2/3 reduction of risk) when delivered in the correct dose and is considered essential when breast cancer is treated by removing only the lump (Lumpectomy or Wide local excision).

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## 2. Chemotherapy

Chemotherapy is the use of anti-cancer (cytotoxic) drugs to destroy cancer cells. The aim of chemotherapy is to do the maximum damage to cancer cells while causing the minimum damage to healthy tissue

Chemotherapy is often given after surgery to reduce the risk of breast cancer coming back. This is called adjuvant treatment

There are many different chemotherapy drugs used to treat breast cancer, and they're often used in combinations (chemotherapy regimen).

Some commonly used combinations are listed below, although other combinations may also be used:

- FEC – 5FU, epirubicin and cyclophosphamide
- AC – doxorubicin (Adriamycin) and cyclophosphamide
- CMF – cyclophosphamide, methotrexate and 5FU
- E-CMF – epirubicin and CMF
- FEC-T – FEC followed by docetaxel (Taxotere®).

## 3. Hormonal therapy

Hormonal therapy is prescribed to women with ER-positive[estrogen receptor positive] breast cancer to block certain hormones that fuel

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cancer growth.

- An example of hormonal therapy is the drug tamoxifen. This drug blocks the effects of estrogen, which can help breast cancer cells survive and grow. Most women with estrogen-sensitive breast cancer benefit from this drug.
- Another class of hormonal therapy medicines called aromatase inhibitors, such as exemestane (Aromasin), have been shown to work just as well or even better than tamoxifen in postmenopausal women with breast cancer. Aromatase inhibitors block estrogen from being made

#### **4.Targeted therapy**

Targeted therapy, also called biologic therapy, is a newer type of cancer treatment. This therapy uses special anticancer drugs that target certain changes in a cell that can lead to cancer. One such drug is trastuzumab (Herceptin). It may be used for women with HER2-positive breast cancer

#### **SURGICAL MANAGEMENT**

The main goal of the surgery is to obtain local control of the disease ,  
Surgeries that are performed commonly are.,

**Modified radical mastectomy** : is the removal of all of the breast,[

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including the skin, breast tissue, areola, and nipple ], as well as the lymph nodes on the same side of the body as the breast

**Total mastectomy** : is the removal of all of the breast tissue, but none of the underlying muscle nor the lymph nodes are removed

**Radical mastectomy**, also called a Halsted mastectomy is the removal of all of the breast tissue, the underlying muscle, as well as the lymph nodes on the same side of the body as the breast (this is rarely done now)

**Skin-sparing mastectomy** is one in which the breast tissue is removed, but the breast skin is kept, so that in the case of immediate breast reconstruction (plastic surgery) no skin grafts will be needed, to cover the breast implant.

**Breast conservation surgery** : An operation that completely removes the breast cancer along with a rim of normal breast tissue around it. Most of the normal breast is saved. There are 3 main ways this surgery is done: lumpectomy, quadrantectomy, and segmental mastectomy

**Lumpectomy** : Breast lump removal, called lumpectomy, is surgery to remove a breast cancer or other lump in the breast, along with some surrounding tissue from the breast. Lumpectomy is often preferred for smaller breast lumps, because it is a smaller procedure and it has about

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the same chance of curing breast cancer as a mastectomy.

**Quadrantectomy:** A quadrantectomy is one type of breast cancer surgery. It is also called a partial, or segmental mastectomy. A quadrantectomy requires the removal of more breast tissue than a lumpectomy, but leaves most of your breast intact. During a quadrantectomy, surgeon removes one-quarter of the breast.

**segmental mastectomy :** cancer is removed along with some of the breast tissue around the tumor and the lining over the chest muscles below the tumor. Usually, some of the lymph nodes under the arm are also taken out.

### **Nursing management**

#### **Assessment**

The history of the breast disorder assists in establishing the diagnosis. The presence of nipple discharge, pain, rate of growth of the lump, breast asymmetry, and correlation with the menstrual cycle should all be investigated.

The size and location of the lump or lumps should be carefully documented, and the physical characteristics of the lesion, such as consistency, mobility, and shape, should be assessed.

If nipple discharge is present, the color and consistency should be noted, as well as whether it occurs from one or both breasts

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Pertinent questions include the following:

- How is the patient responding to the diagnosis?
- What coping mechanisms does she find most helpful?
- What psychological or emotional supports does she have and use?
- Is there a partner, family member, or friend available to assist her in making treatment choices?
- Is she experiencing any discomforts?

**NURSING DIAGNOSIS**

Pre operative

1. Decisional conflict related to treatment options
2. Anxiety related to the diagnosis of cancer
3. Fear related to specific treatment and body image changes
4. Risk for ineffective coping(individual/family) related to the diagnosis of breast cancer and related treatment options
5. Deficient knowledge about the planned surgical treatments

Post operative

1. Acute pain related to surgical procedure
2. Disturbed body image related to loss of body part
3. Ineffective therapeutic regimen management related to lack of knowledge regarding postoperative care and breast self

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examination

4. Impaired physical mobility related to pain
5. Self-care deficit related to partial immobility of upper extremity on operative side
6. Risk for sexual dysfunction related to loss of body part, change in self-image and fear of partner's response.

**PRE-OPERATIVE**

**1. Nursing Diagnosis :** Decisional conflict related to treatment options

**Subjective data :** Verbalise confusion in making decisions

**Objective data :** Express nervousness and fear

**Goal :** improvement of decision making ability

INTERVENTIONS	RATIONALE
Assess the decision making ability of the client	Too many therapeutic approaches for the client may be frightening
Instrumental in ensuring the patient and family members about treatment options	Helps truly understand their options
Help the client weigh the risks and benefits of the each option	Helps in making a decision
Support patient's decision once it is made	Provides confidence to the client

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**Expected outcome** : Improves decision making abilities

**2. Nursing diagnosis** : Anxiety related to the diagnosis of cancer

Subjective data : Verbalises the stress and tension about the diagnosis

Objective data : shows the signs of anxiety like restlessness , worriedness,etc

Goal : Improve ability to cope up with

INTERVENTIONS	RATIONALE
Encourage woman to talk about feelings and diagnosis of cancer	Promote successful resolution of anxiety
Provide opportunity for significant others to discuss situation and learn about support groups	Anxiety about the diagnosis and outcome can decrease
Reinforce importance of annual mammogram	Recommended screening technique for identification of local recurrence after mastectomy
Provide information about signs and symptoms to report to health care provider	Helps in early recognition of metastasis

Expected outcome : Gains confidence in ability to cope

<p><b>POST-OPERATIVE</b></p> <p><b>3.Nursing diagnosis :</b> Acute pain related to Surgical procedure</p> <p>Subjective data : Verbalises pain over the surgical incisionsite</p> <p>Objective data : Painful facial grimaces</p> <p>Goal : Relieve pain</p>			
<p><b>INTERVENTION</b></p> <p>Assess the pain level, characteristics and the intensity</p> <p>Encourage use of non-invasive pain management strategies such as distraction, imagery, and relaxation</p> <p>Position the arm</p> <p>Administer analgesics as prescribed</p> <p>Expected outcome : Absence or tolerable level of pain</p>	<p><b>RATIONALE</b></p> <p>Identify the baseline data</p> <p>Complement analgesics and decrease need for analgesia</p> <p>Prevent tension on suture line and provide support</p> <p>Relieves pain</p>	<p>Satisfaction with pain control</p>	
<p><b>4.Nursing diagnosis :</b> Disturbed body image related to loss of body part</p> <p>Subjective data : Verbalisation of concern about appearance and feelings of loss of femininity</p> <p>Objective data : Refusal to view incision</p>			

INTERVENTION	RATIONALE				
Assess the degree of self esteem disturbance	Appropriate intervention can be initiated				
Arrange for Reach to Recovery visitor or similar community resource	Provide hope for recovery and a normal future				
Assist patient to verbalize feelings and encourage open communication with significant others	Promote grief work and maintain support from family and friends				
<p>Expected outcome : Acceptance of altered body image</p>					
<p>Post operative health teaching and home care</p>					
<p>Patients who undergo breast cancer surgery should receive tremendous amount of information post-operatively. Teaching is to be reviewed and reinforced to ensure that the patient and family are prepared to manage the necessary home care</p>					
<p>It mainly emphasises on the following aspects.,</p>					
<p>1. Hand and Arm care after axillary Lymph node Dissection</p>					
<ul style="list-style-type: none"> <li>• Avoid blood pressures, injections, and blood draws in affected extremity</li> <li>• Use sunscreen for extended exposure to sun</li> <li>• Apply insect repellent to avoid insect bites</li> </ul>					

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- Wear gloves for gardening
- Avoid cutting cuticles, push them back during manicures
- Use electric razor for shaving armpit
- Avoid lifting objects greater than 5-10 pounds

2. Exercises after breast surgery

- Wall handclimbing
- Rope turning
- Rod or broomstick lifting
- Pulley tugging

Wall handclimbing : Stand facing the wall with feet apart and toes as close to the wall as possible. With elbows slightly bent , place the palms of the hand on the wall at shoulder level. By flexing the fingers, work the hands up the wall until arms are fully extended. Then reverse the process, working the hands down to the starting point

Rope turning : Tie a light rope to a doorknob. Stand facing the door . Take the free end of the rope in the hand on the side of surgery. Place the other hand on the hip. With the rope-holding arm extended and held away from the body, turn the rope, making as wide swings as possible. Begin slowly at first; speed up later

Rod or broomstick lifting : Grasp a rod with both hands, held about 2 feet apart. Keeping the arms straight, raise the rod over the head. Bend elbows to lower the rod behind the head. Reverse maneuver, raising the

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rod above the head, then return to the starting position

Pulley tugging : Toss a light rope over a shower curtain rod or doorway curtain rod. Stand as nearly under the rope as possible. Grasp an end in each hand. Extend the arms straight and away from the body. Pull the left arm up by tugging down with the right arm, then the right arm up and the left down in a see-sawing motion.

### 3. Continuous, ongoing Breast self examination(BSE)

#### STEPS IN BSE

##### Step 1 :

- Stand in front of a mirror
- Check both breasts for anything unusual
- Look for discharge from the nipple, puckering, dimpling, or scaling of the skin

The next two steps are done to check for any changes in the contour of breasts. As one does them, one should be able to feel one's muscle tighten

##### Step 2 :

- Watch closely in the mirror as you clasp your hands behind your head and press your hands forward
- Note any changes in the contour of your breasts

##### Step 3

- Next press your hands firmly on your hips and bow slightly toward the mirror as you pull your shoulders and elbows forward

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- Note any change in the contour of the breasts

Some women do the next part of the examination in the shower. Your fingers will glide easily over the soapy skin, so you can concentrate on feeling for changes inside the breast.

Step 4

- Raise your left arm
- Use 3 or 4 fingers of your right hand to feel your left breast firmly, carefully, and thoroughly
- Beginning at the outer edge, press the flat part of your fingers in small circles, moving the circles slowly around the breast
- Gradually work toward the nipple
- Be sure to cover the whole breast
- Pay special attention to the area between the breast and the underarm, including the underarm itself
- Feel for any unusual lumps or masses under the skin.
- If you have any spontaneous discharge during the month-whether or not it is during your BSE-see your doctor
- Repeat the examination on the right breast

Step 5 :

- Step 4 should be repeated lying down
- Lie flat on your back with your left arm over your head and a pillow or folded towel under your left shoulder.(This position

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flattens the breast and makes it easier to check)

- Use the same circular motion described above
- Repeat on the other breast

4. Advice to take annual mammography

**REFLECTIVE LEARNING:**

1. Breast cancer is commonly seen in -----quadrant of breast
2. ----- lymph nodes are primarily involved in breast cancer.
3. On inspection,-----&----- are the clinical signs that are used to rule out breast cancer
4. In TNM classification, 'N' Stands for -----.

**Key**

1. Upper outer quadrant
2. Axillary
3. Peau'd' orange & retraction of nipple
4. Lymph node involvement

**RESEARCH BASED LEARNING**

**Yi-Sheng Sun et al 2017** conducted a study on Risk Factors and Preventions of Breast Cancer. Breast cancer is the second leading cause of cancer deaths among women. The development of breast cancer is a multi-step process involving multiple cell types, and its prevention remains challenging in the world. Early diagnosis of breast cancer is one of the best approaches to prevent this disease. In some developed

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countries, the 5-year relative survival rate of breast cancer patients is above 80% due to early prevention. In the recent decade, great progress has been made in the understanding of breast cancer as well as in the development of preventative methods. The pathogenesis and tumor drug-resistant mechanisms are revealed by discovering breast cancer stem cells, and many genes are found related to breast cancer. Currently, people have more drug options for the chemoprevention of breast cancer, while biological prevention has been recently developed to improve patients' quality of life. In this review, we will summarize key studies of pathogenesis, related genes, risk factors and preventative methods on breast cancer over the past years. These findings represent a small step in the long fight against breast cancer.

#### **INTERACTIVE LEARNING**

- Total batch divided in to 5 groups and discussed regarding breast cancer of their own understanding.

#### **INTERNET BASED LEARNING:**

- <https://www.medicalnewstoday.com/articles/319418.php>
- <https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0014292>

#### **CONTEXTUAL LEARNING**

**ASSIGNMENT:** Write a assignment on “Nursing management of patient with breast cancer” Submission on -. 10marks

#### **CAPSTONE PROJECT**

Students write their own knowledge related breast cancer about 200 words

#### **SUPERVISED LEARNING**

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		Students divided in to 5 groups given 1 <sup>st</sup> ( definition, incidence, risk factors and etiology of breast cancer) 2 <sup>nd</sup> (types and pathophysiology of breast cancer) 3 <sup>rd</sup> ( stages and clinical manifestations of breast cancer) 4 <sup>th</sup> (diagnostic tests and management) 5 <sup>th</sup> (nursing process).				
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### SUMMARY

Today we have discussed about the brief review of anatomy and physiology of breast, definition, causes, pathophysiology, clinical manifestations , diagnostic findings, medical surgical and nursing management of carcinoma of breast

### CONCLUSION

In conclusion, breast cancer is the disgusting situation to every woman and with prompt beginning and continuing BSE and annual mammography, breast cancer can be detected early and treated.

### BIBLIOGRAPHY

### TEACHERS REFERENCE

- Brunner and Suddharth's "textbook of medical surgical nursing", 11<sup>th</sup> edition, volume 2, 2006 by Lippincott William Wilkins publications. PP 1712-1734
- Joyce M Black's "Medical surgical nursing", 7<sup>th</sup> edition, volume 1, 2000, by elsevier publications. PP 1095-1110
- Lewis, Heitkemper's "medical surgical nursing", 6<sup>th</sup> edition, 2006, by mosby's publications. PP 1366-1378
- Phipps "medical surgical nursing" 8<sup>th</sup> edition, 2007 by mosbyelsevier publications. PP 1750-1773
- Prescilla Lemone's "medical surgical nursing-critical thinking in client care" 4<sup>th</sup> edition by Saunders publications. PP 1813-1816
- Tortora , Grabowski's "Anatomy and physiology" , 10<sup>th</sup> edition 2003 by wiley&sons,inc, USA, PP 824-825

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## STUDENTS REFERENCE

- Brunner and Suddharth's "Textbook of medical surgical nursing", 11<sup>th</sup> edition, volume 2, 2006 by Lippincott William Wilkins publications. PP 1712-1734
- Joyce M Black's "Medical surgical nursing", 7<sup>th</sup> edition, volume 1, 2000, by elsevier publications. PP 1095-1110
- Lewis, Heitkemper's "Medical surgical nursing", 6<sup>th</sup> edition, 2006, by mosby's publications. PP 1366-1378

## Journal reference

- Goodwin P et al (2003). Diet and breast cancer. Journal of clinical oncology, 21, 2500-2507

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