



Uganda Cancer Institute



BREAST CANCER

Information, Education and Communication Booklet for Health Workers

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Comprehensive Community Cancer
Programme (CCCP)

Research is our resource

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SECTION ONE: WHAT IS BREAST CANCER?

Breast cancer is an uncontrolled growth of breast cells.

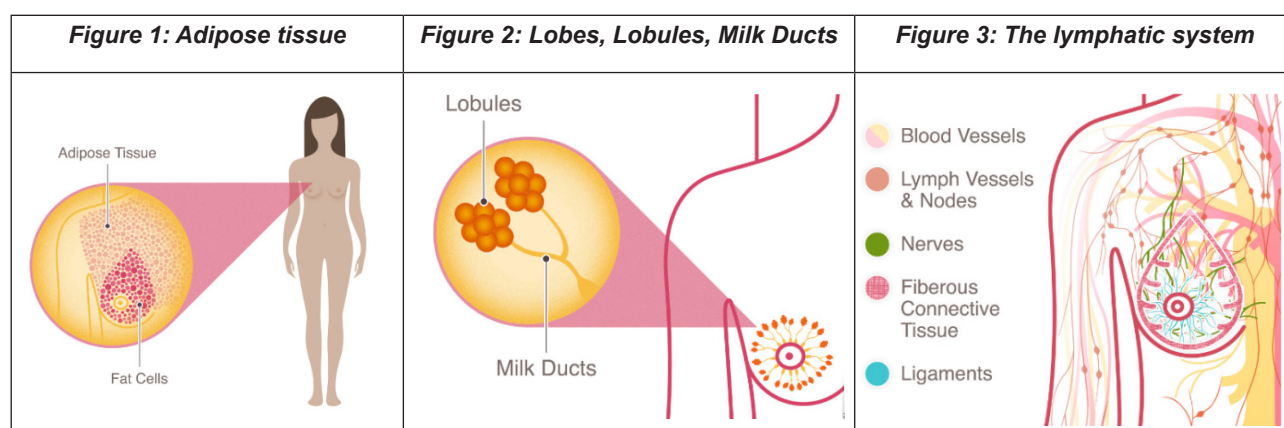
Understanding the breast: Adipose tissue, Lobes, Lobules, Milk Ducts and the lymph system

The female breast is mostly made up of a collection of fat cells called **adipose tissue** (**Figure 1**). This tissue extends from the collarbone down to the underarm and across to the middle of the ribcage. A healthy female breast is made up of 12–20 sections called lobes (**Figure 2**). Each of these lobes is made up of many smaller **lobules**, the gland that produces milk in nursing women. Both the lobes and lobules are connected by **milk ducts**, which act as stems or tubes to carry the milk to the nipple. These breast structures are generally where the cancer begins to form.

Within the adipose tissue is a network of ligaments, fibrous connective tissue, nerves, lymph vessels, lymph nodes, and blood vessels.

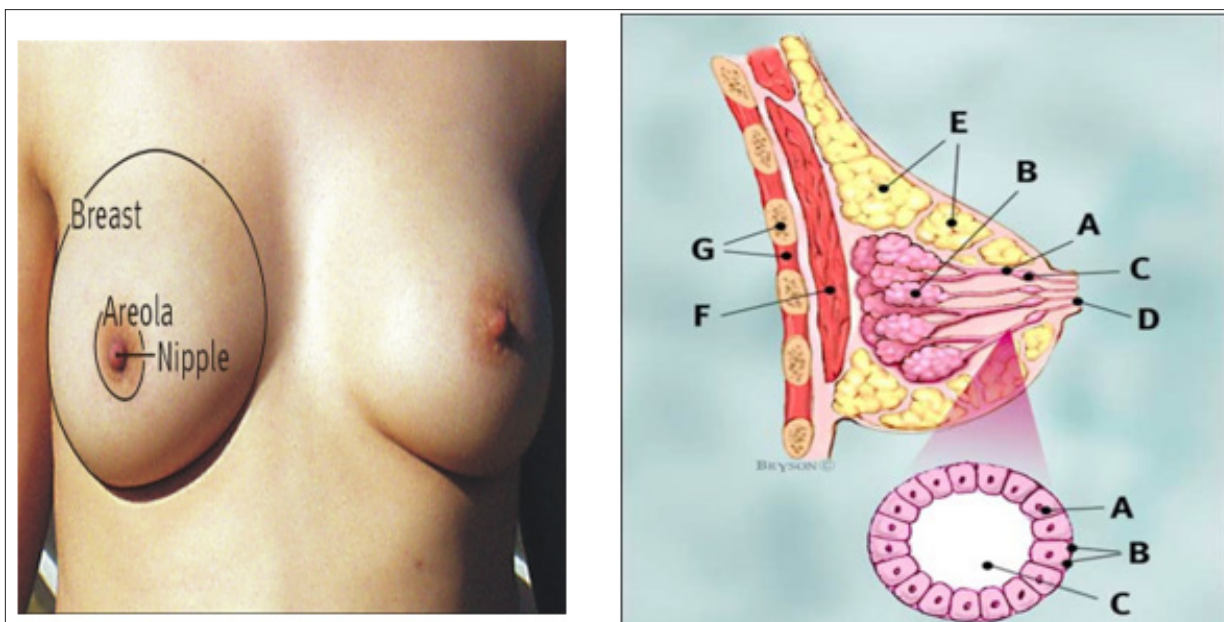
The lymph system, which is part of the immune system, is a network of lymph vessels and lymph nodes running throughout the entire body (**Figure 3**). Similar to how the blood circulatory system distributes elements throughout the body, the lymph system transports disease-fighting cells and fluids. Clusters of bean-shaped lymph nodes are fixed in areas throughout the lymph system and act as filters by carrying abnormal cells away from healthy tissue.

The type of breast cancer is generally determined by the origin of the growth of cancer cells, which is almost always in the lobes, lobules, or ducts. When cancer is found in the nearby lymph nodes, it helps doctors identify just how far the cancer has spread. If the nearest nodes contain cancer, additional nodes are usually examined for the presence or absence of cancer cells to understand how far the disease has progressed.



Source: <http://www.nationalbreastcancer.org/breast-anatomy>

Normal breast structure

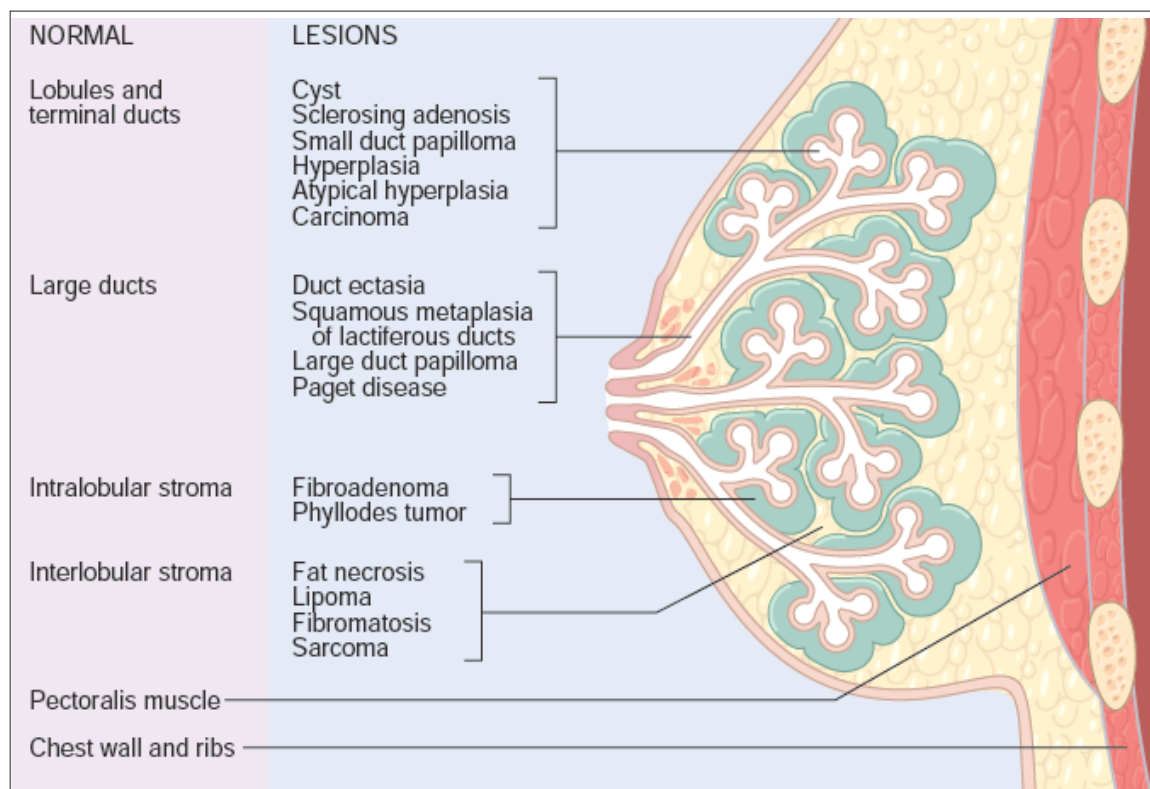


Source: www.aboutcancer.com/breast_ca_org_anatomy.jpg

- A) Ducts B) Lobules C) Lumen (Dilated section of duct to hold milk) D) Nipple**
E) Fat F) Pectoralis major muscle G) Chest wall/rib cage

COMMON SITES OF BREAST CANCER

Breast cancer usually develops in ducts, milk lobules, lumen of the milk ducts and nipples



Source: <http://medicinembbs.blogspot.ug/2010/12/breast-anatomy.html>

Breast Cancer burden

According to the World Health Organization (WHO), breast cancer is the most common cancer among women worldwide, claiming the lives of hundreds of thousands of women each year and affecting countries at all levels of modernization.

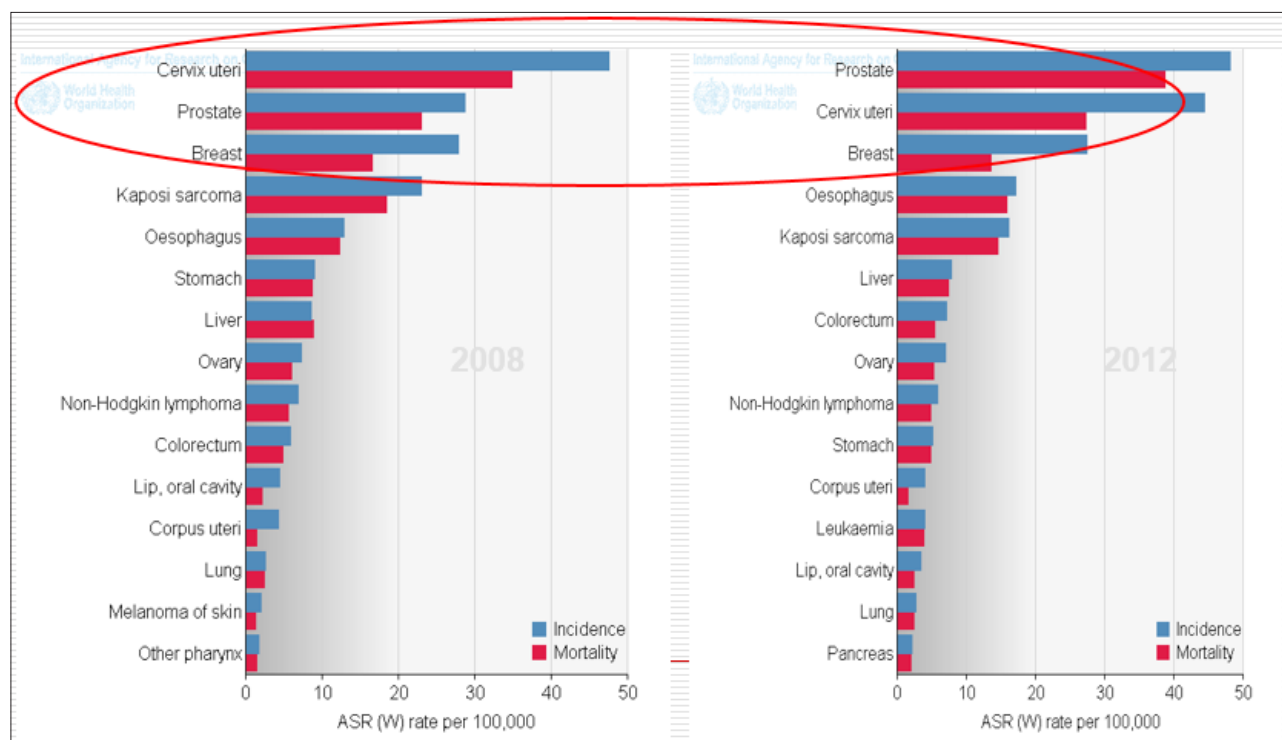
Breast cancer is the second leading cause of cancer death among women in Uganda, after cancer of the cervix, however, the annual rate of increase in the incidence of breast cancer is 3.7 %, more than that of cancer of the cervix (1.8%).

- In 2012, according to age- standardized data from WHO Globocan report, there was 28/ 100,000 new cases of breast cancer and 14/100,000 deaths from breast cancer
- All people, whether male or female, are born with some breast cells and tissue that have the possibility to develop into cancer. However, breast cancer in men is rare,

Although breast cancer in men is rare, an estimated 1 in every 100 people diagnosed with breast cancer is a man world-wide.

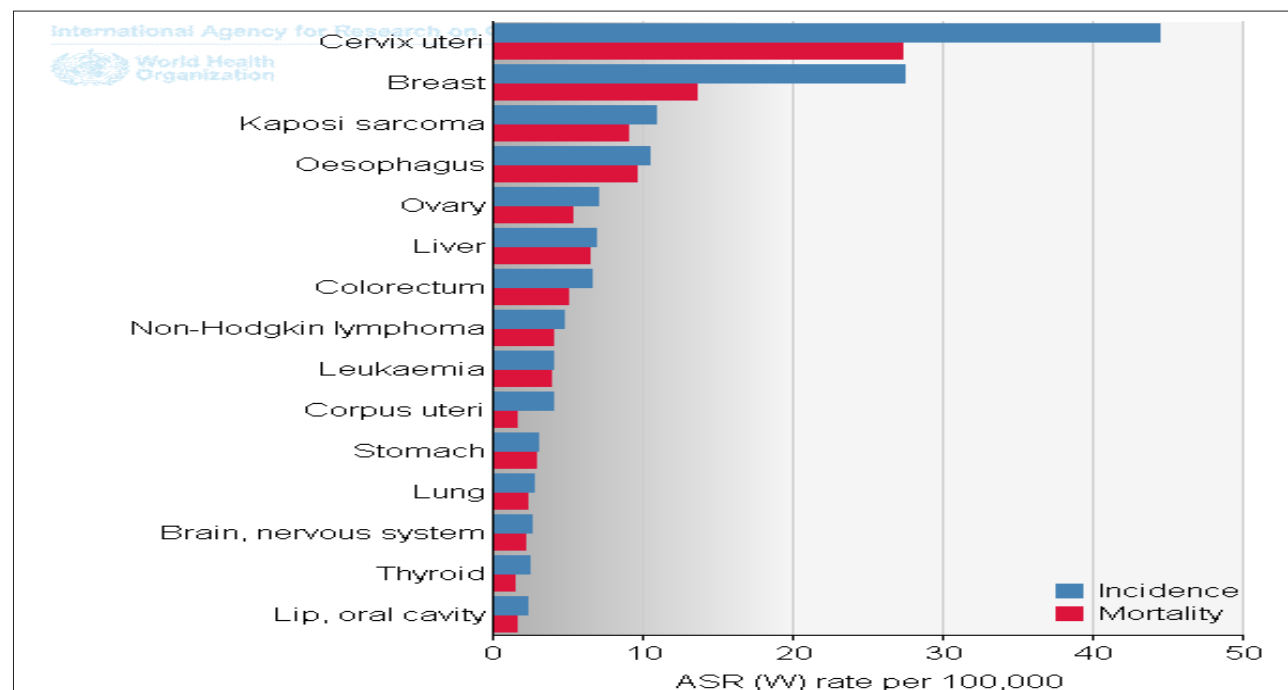
The relative burden of the top Cancers in Uganda

According to WHO Globocan report of 2008 and 2012 respectively (www.globocan.iarc.fr), the estimated new cases of cancer (incidence) & death (mortality) in both men and women were as indicated in the **Figure** below. The top three cancers were Prostate, Cervical and Breast cancer.



Top cancers among women in Uganda

According to WHO report of 2012, Cancer of the cervix and breast are the leading cause of cancer death among women in Uganda (see **Figure** below)



SECTION TWO: WHAT ARE THE RISK FACTORS FOR BREAST CANCER?

When a person is told that she or he has breast cancer, it's natural to wonder what may have caused the disease. But no one knows the exact causes of breast cancer. Doctors may not know exactly why one person develops breast cancer and another person doesn't, and most women who have breast cancer will never be able to pinpoint an exact cause. What we do know is that breast cancer is always caused by damage to a cell's DNA.

Known breast cancer risk factors

Women with certain risk factors are more likely than others to develop breast cancer. A risk factor is something that may increase the possibility of developing a disease. Some risk factors (such as drinking alcohol) can be avoided. But most risk factors (such as having a family history of breast cancer) can't be avoided. Having a risk factor does not mean that a person will develop breast cancer. Many women who have risk factors may never develop breast cancer.

The risk factors for breast cancer can be i.e. genetic or environmental or lifestyle factors, or in most cases, a combination of the genetic and environment or lifestyles. But most patients will never know exactly what caused their cancer. However, there are certain established risk factors that are associated with breast cancer.

Risk factors that cannot be changed: Genetic Factors

- **Sex:** Breast cancer occurs nearly 100 times more often in women than in men.
- **Age:** Two out of three women with invasive cancer are diagnosed after age 55.
- **Family History and Genetic Factors:** If your mother, sister, father or child has been diagnosed with breast or ovarian cancer, you have a higher risk of being diagnosed with breast cancer in the future. Your risk increases if your relative was diagnosed before the age of 50.
- **Personal Health History:** If you have been diagnosed with breast cancer in one breast, you have an increased risk of being diagnosed with breast cancer in the other breast in the future. Also, your risk increases if abnormal breast cells have been detected before.
- **Menstrual and Reproductive History:** Early menstruation (before age 12), late menopause (after 55), having your first child at an older age, or never having given birth can also increase your risk for breast cancer.
- **Certain Genetic Changes:** Mutations in certain genes, such as BRCA1 and BRCA2, can increase your risk for breast cancer. Individuals with these gene mutations can pass the gene mutation onto their children.
- **Dense Breast Tissue:** Having dense breast tissue can increase your risk for breast cancer and make lumps harder to detect.

Avoidable risk factors: Environmental and Lifestyle risk factors

- 1. Lack of adequate physical Activity:** A sedentary lifestyle with little physical activity can increase your risk for breast cancer, therefore, have regular physical activity like brisk walking, running or gardening for at least 30 minutes per day for at least 5 days a week.

How might physical activity be linked to reduced risks of cancer?

Exercise has a number of biological effects on the body, including:

- Lowering the levels of hormones, such as insulin and estrogen, and of certain growth factors that have been associated with cancer development and progression.
- Helping to prevent obesity and decreasing the harmful effects of obesity, particularly the development of insulin resistance (failure of the body's cells to respond to insulin)
- Reducing inflammation
- Improving immune system function
- Altering the metabolism of bile acids, resulting in decreased exposure of the gastrointestinal tract to these suspected carcinogens
- Reducing the amount of time it takes for food to travel through the digestive system, which decreases gastrointestinal tract exposure to possible carcinogens.

How much physical activity is recommended for general health benefits?

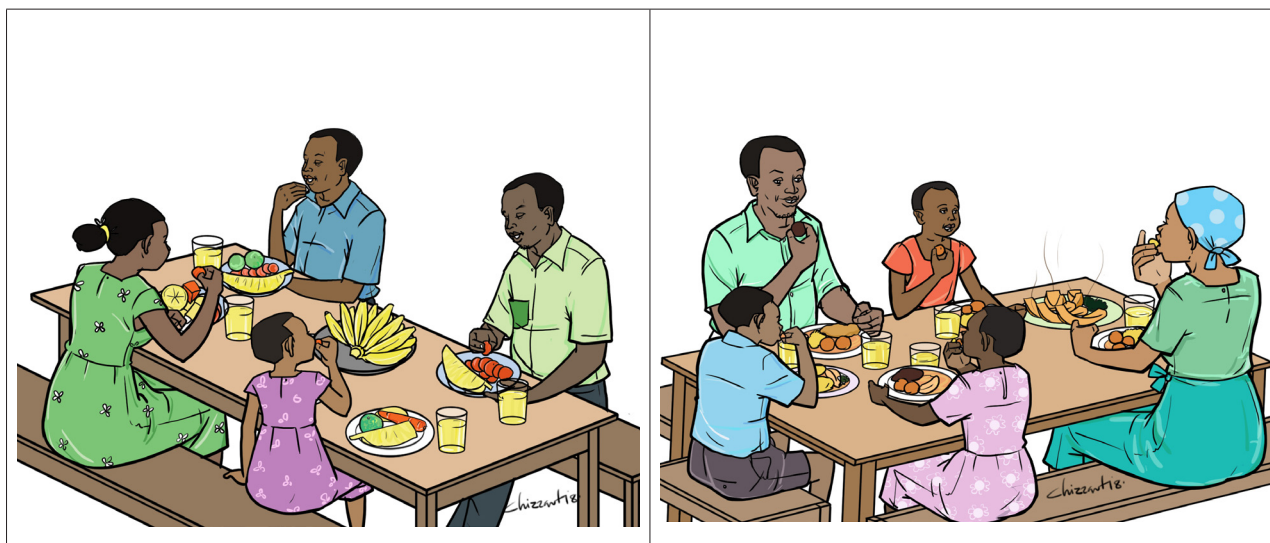
The Uganda physical activity guideline (PAG) is being developed, however, the WHO physical activity guideline recommends for adults aged 18–64, for substantial health benefits, need to engage in at least 150 minutes (2 hours and 30 minutes) of moderate-intensity aerobic physical activity, 75 minutes (1 hour and 15 minutes) of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity activity, every week. Aerobic physical activity should be performed in episodes of at least 10 minutes, preferably spread throughout the week.

For children and adolescents, the guidelines recommend at least 60 minutes (1 hour) of physical activity daily. Most of the 60 or more minutes a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous-intensity physical activity at least 3 days a week. As part of their 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity on at least 3 days of the week and bone-strengthening physical activity on at least 3 days of the week.

Is physical activity beneficial for cancer survivors?

Physical activity is beneficial in cancer survivorship especially, in controlling weight gain, improving quality of life, limiting cancer recurrence or progression and improving prognosis (likelihood of survival).

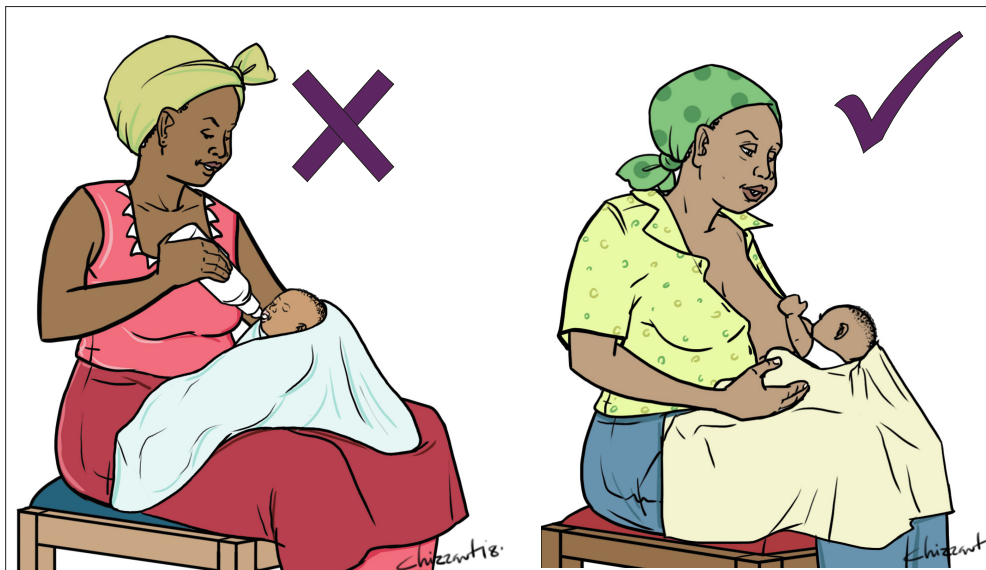
- 2. Unhealthy Diet:** Not eating the right amount, variety and quality of food increases breast cancer risk. A diet high in saturated fat like red meat (beef, pork, goat's meat, etc.) and lacking fruits and vegetables can increase your risk for breast cancer. Therefore, eat a variety and right amount of quality and safe food.



3. Being Overweight and or Obese: Being overweight or obese can increase your risk for breast cancer. Your risk is greater if you have already gone through menopause, therefore, maintain healthy weight. It is therefore, advisable for every person to determine their weight status by use of body mass index (BMI). Body Mass Index (BMI) is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m²). For example, an adult who weighs 70kg and whose height is 1.75m will have a BMI of 22.9 That is, BMI = $70 \text{ kg} / (1.75 \text{ m}^2) = 70 / 3.06 = 22.9$

BMI	CLASSIFICATION
<16.00	Severe thinness
16.00 - 16.99	Moderate thinness
17.00 - 18.49	Mild thinness
<18.50	Underweight
18.50 - 24.99	Normal
25.00 - 29.99	Over weight
≥30.00	Obese
30.00 - 34.99	Obese class I
35.00 - 39.99	Obese class II
≥40.00	Obese class III

- 4. A late first pregnancy & not breastfeeding:** Women who have a late first pregnancy (after the age of 35) are more likely to develop breast cancer. Women who do not breast feed their children also increase their possibility of developing breast cancer.



- 5. Drinking Alcohol:** Frequent consumption of alcohol can increase your risk for breast cancer. The more alcohol you consume, the greater the risk. Therefore, do not drink alcohol or avoid excess amount of alcohol. Alcohol is produced by the fermentation of sugar and starch in the presence of yeast. The main types of alcoholic drinks and their alcohol content are as follows:

- Beers and hard ciders: 3-7 percent alcohol
- Wines, including sake: 9-15 percent alcohol
- Wines fortified with liquors, such as port: 16-20 percent alcohol
- Liquor, or distilled spirits, such as, enguli, gin, rum, vodka, and whiskey, which are produced by distilling the alcohol from fermented grains, fruits, or vegetables: usually 35-40 percent alcohol (70-80 proof), but can be higher. Other locally produced alcohol have unknown amount of alcohol concentration.

The more alcohol a person drinks—particularly the more alcohol a person drinks regularly over time—the higher his or her risk of developing an alcohol-associated cancer.



How does alcohol increase the risk of cancer?

There are many ways that alcohol may increase the risk of developing cancer, these include:

- Breaking down ethanol in alcoholic drinks to acetaldehyde, which is a toxic chemical and a probable human carcinogen; acetaldehyde can damage both DNA (the genetic material that makes up genes) and proteins.
- Generating chemically reactive molecules that contain oxygen, which can damage DNA, proteins, and lipids (fats) through a process called oxidation
- Impairing the body's ability to break down and absorb a variety of nutrients that may be associated with cancer risk, including vitamin A; nutrients in the vitamin B complex, such as folate; vitamin C; vitamin D; vitamin E; and carotenoids
- Increasing blood levels of estrogen, a sex hormone linked to the risk of breast cancer

Alcoholic beverages may also contain a variety of carcinogenic contaminants that are introduced during fermentation and production, such as nitrosamines, asbestos fibers, phenols, and hydrocarbons.

So what amount of alcohol a person can drink safely?

The amount of alcohol a person can drink safely depends on the types of alcohol, health status and sex of the person, for example, the American National Institute of Health (NIH) recommends that a man should not drink more than two drinks (serving size) per day and women not more than one drink per day- this is only if you are not pregnant, lactating, have alcohol dependencies, diseases or are taking medications. One drink contains 14 grams of alcohol, meaning one 12 oz of beer (5% alcohol), one 5 oz of glass of wine (12%), and one 1.5 oz of hard liquor (40%) – each of these is one drink/ one serving.

- 6. Tobacco use-** Tobacco use is a leading cause of many types of cancer. People who use tobacco products or who are regularly around environmental tobacco smoke (also called second-hand smoke) have an increased risk of cancer because tobacco products and secondhand smoke have many chemicals that damage the DNA.



There is no safe level of tobacco use. People who use any type of tobacco product are strongly urged to quit.

People who quit smoking, regardless of their age, have substantial gains in life expectancy compared with those who continue to smoke. Also, quitting smoking at the time of a cancer diagnosis reduces the risk of death. Tobacco smoke contains many chemicals that are harmful to both smokers and nonsmokers. Breathing even a little tobacco smoke can be harmful.

It is estimated that of the more than 7,000 chemicals in tobacco smoke, at least 250 are known to be harmful, including hydrogen cyanide, carbon monoxide, and ammonia. Among the 250 known harmful chemicals in tobacco smoke, at least 69 can cause cancer.

- 7. Radiation to the Chest:** Having radiation therapy to the chest before the age of 30 can increase your risk for breast cancer.
- 8. Combined Hormone Replacement Therapy (HRT):** Taking combined hormone replacement therapy, as prescribed for menopause, can increase your risk for breast cancer and increases the risk that the cancer will be detected at a more advanced stage.

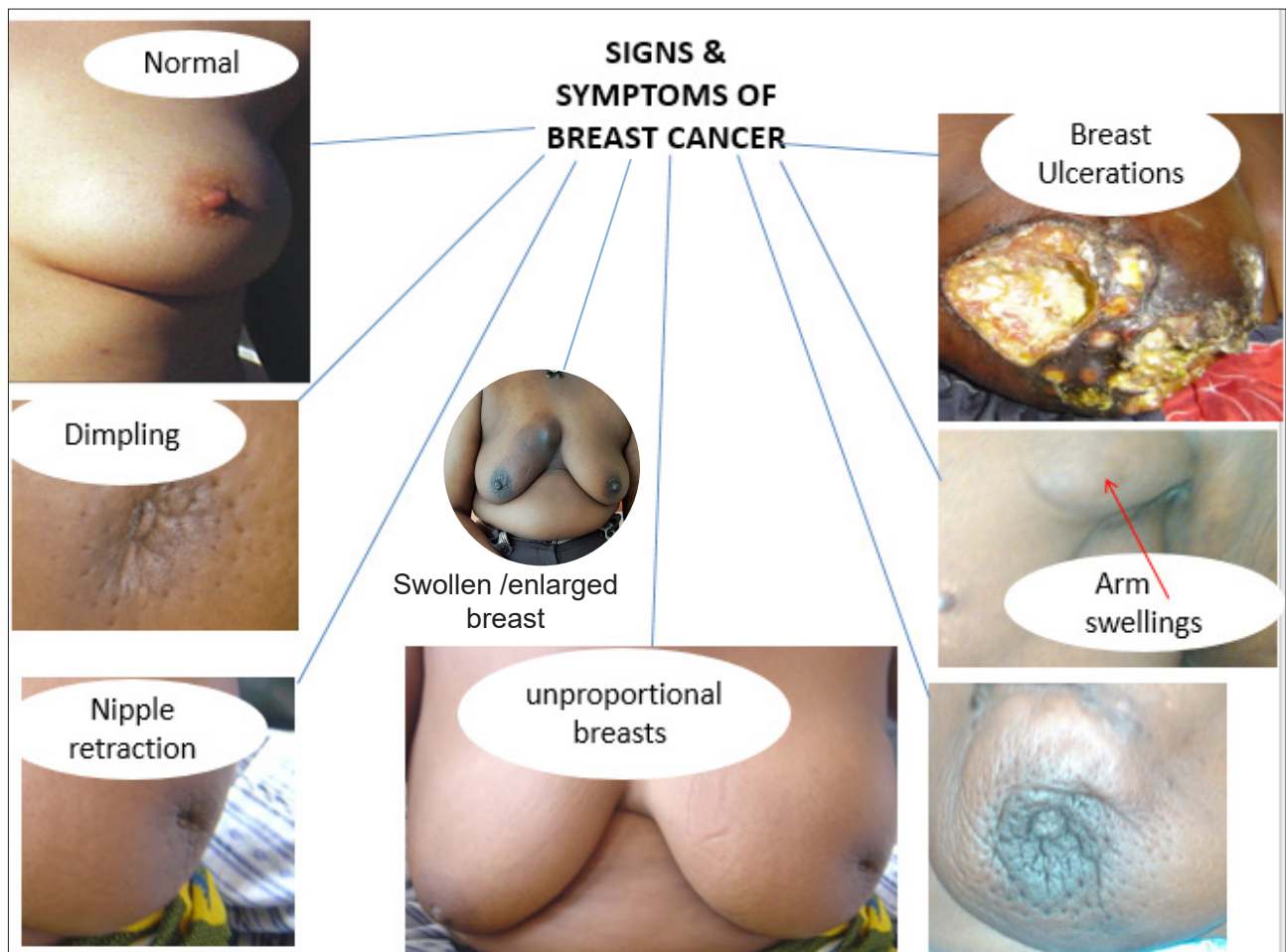
SECTION THREE: SYMPTOMS AND SIGNS OF BREAST CANCER

Many breast cancer symptoms are invisible and not noticeable without a professional screening, but some symptoms can be caught early just by being proactive about your breast health. Most people who have breast cancer symptoms and signs will initially notice only one or two, and the presence of these symptoms and signs do not automatically mean that you have breast cancer.

The common signs of breast cancer are summarized below:

- A hard lump developing in the breast or armpit – typically painless and occurring on one side only.
- A change in the size or shape of the breast, including indentation, 'growing' (particularly prominent) veins or skin erosion.
- Changes in the skin such as hardening, dimpling, scaly, bumps, redness/heat or an orange peel like appearance.
- Changes in the nipple such as retraction (nipple that is turned slightly inward or sunken), the secretion of unusual discharge or a rash around the nipple area.

Varying presentations illustrating breast cancer signs and symptoms



Source: UCI - Fred Hutchinson Cancer Research Center

SECTION FOUR: EARLY DETECTION OF BREAST CANCER

You can take some important steps to help detect it earlier. *Early Detection* measures can increase your possibility of finding breast cancer before it spreads.

Methods of Breast cancer screening (check-up)

1. By Self: through monthly self Breast examinations (BSE)
2. By Health worker(Nurses, Midwives, doctors). This is called Clinical breast Exam(CBE) recommended to be done after every one year (annually).
3. Through imaging using ultra sound machines, breast X-rays (mammography), CT scans and MRIs.
4. Surgery: Breast lump removal and histology done for suspected masses.

1. Breast Self-Exam (BSE)

By performing monthly breast self-exams, you will be able to more easily identify any changes in your breast. Be sure to talk to your health worker if you notice anything unusual changes in your breast.

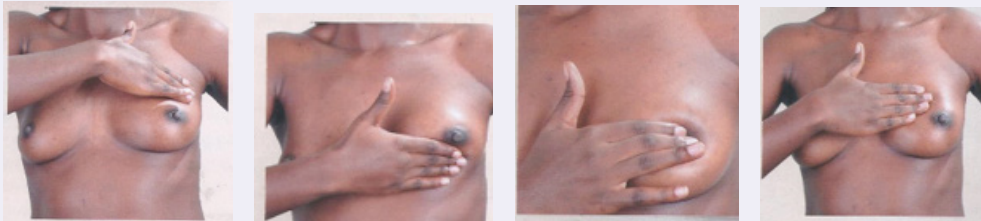
How to do a Breast Self-Exam (BSE)

A breast self-examination (BSE) is a technique which allows an individual to examine his/her breast tissue for any physical or visual changes in a private place like bedroom or bath room with adequate light. It is often used as an early detection method for breast cancer. Both men and women should perform a BSE at least once each month beginning at age of 18 years.

Breast Self-Exam Tips

1. Do your BSE at least 7 days after the end of your monthly period.
2. If you are pregnant, no longer have periods or your period is irregular, choose a specific day each month.
3. If you find a lump or notice other unusual changes, don't panic. About 80% of lumps found are not cancerous. See your doctor promptly for further evaluation.

How to do a Breast Self-Exam (BSE)

STEPS & DESCRIPTION	
STEP 1: 	Stand in front of a mirror and look closely at your breasts in the mirror with your shoulder straight and your arms on your hips. Check for changes in the following: • Shape: Compare one to the other. One breast may normally be larger than the other, but sudden changes in size should not occur. • Skin: Check for rash, redness, and puckering, dimpling, or orange-peel-textured appearance. • Nipples: Check for any physical changes such as a sunken nipple, scaliness, redness, itching, swelling, or discharge. • Vein patterns: Look for a noticeable increase in size or number of veins compared to the other breast.
STEP 2:	Raise your arms and look for the same changes
STEP 3:	While you are at the mirror, look for any signs of fluids (watery, blood or yellowish fluid) coming out of the nipple or both nipples.
STEP 4: 	Lie down and examine your breast using flat pads of your three middle fingers—not the tips—move the pads of your fingers in little circles so that you can feel all levels of your breast tissue. Use your right hand to examine your left breast after which you use your left hand to exam your right breast.
Step5:	Finally feel your breast while you are standing or sitting. Cover your entire breast using the same hand movement described in step 4 above.

Source: The cancer awareness magazine, UCI (2011)

2. Clinical Breast Exam

- This is an exam done by your healthcare provider to check the entire breast, underarm, and collarbone area for any lumps or abnormalities. It is worth noting that some women have breast tissue that appears to be full of tiny fibrous bumps or ridges throughout the breast tissue that are not cancer.

Clinical Breast exams are an important part of early detection. Although most lumps are discovered through breast self-exams, an experienced health worker may help you better than when you check your breast yourself.

It is recommended to have Clinical Breast exams once a year.

When your health worker detects abnormal changes in the breast, he / she will recommend additional test or refer the patient to higher level hospital to do additional check-up.

The difference between a breast self-exam and a Clinical breast exam is that clinical breast exam is performed by a healthcare worker who is trained to recognize many different types of abnormalities and warning signs. This is a yearly check-up exam, whereas your breast self-exam is something every woman should do once a month at home.

3. Mammogram

- A mammogram is an x-ray that is used to examine the breast tissue for any suspicious areas. Mammography is recommended for women 40 years and older.
- The breast is exposed to a small dose of ionizing radiation that produces an image of the breast tissue.
- Mammograms can often show a breast lump before it can be felt. They also can show tiny clusters of calcium called microcalcifications. Lumps or specks can be caused by cancer, fatty cells, or other conditions like cysts. Further tests are needed to find out if abnormal cells are present.
- **It is recommended for all** women 40 years and older to have mammograms every 1 or 2 years. Women who are younger than 40 and have risk factors for breast cancer should ask their healthcare professional whether mammograms are advisable and how often to have them.

What happens If my mammogram results are abnormal and how is breast cancer confirmed?

If the mammogram shows an abnormal area of the breast, your doctor will order additional tests offering clearer, more detailed images of that area.

Although lumps are usually non-cancerous, the only way to be certain is to perform additional tests, such as an ultrasound or MRI. If further tests show that the mass is solid, your radiologist may recommend a biopsy, a procedure in which cells are removed from a suspicious area to check for the presence of cancer.

Breast biopsy

Cells or tissue from a suspicious mass are removed and examined under a microscope to check for cancer cells. There are several types of biopsies, namely:

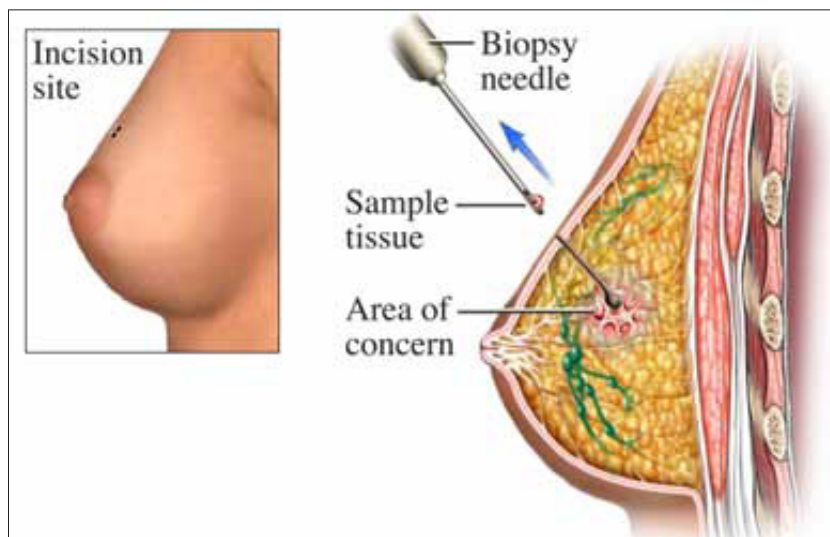
Fine needle aspiration (FNA): This is a non-surgical procedure in which a small needle is used to remove a sample of cells from the breast lump or swelling for examination under a microscope

Core biopsy: This is similar to FNA except that a relatively larger needle is used to remove a sample of cells from the breast lump or swelling for examination under a microscope

Ultrasound –guided core biopsy: This is similar to core biopsy, except ultrasound is used to guide the needle for correct placement.

Stereotactic biopsy: This is where the radiologist makes a small incision in the breast skin and a biopsy needle is placed in to the breast tissue with aid of computerized pictures to guide the exact needle placement.

The **Figure** below shows how breast biopsy is done



Source: <http://thenurseszone.com/nursing-responsibilities-during-breast-biopsy/>

Staging of breast cancer

In simple terms the stage of a cancer describes the size of the tumour and determines whether it has spread and how far it has spread. The stage is important because it helps cancer specialists to decide on the best treatment option.

Stage Classification

Stage I: The tumour is no larger than two centimeters, and has not spread to the lymph nodes

Stage II: The tumour is around five centimeters in size and may have spread to the lymph nodes under the arm

Stage III: The tumour(s) may have spread to lymph nodes, be clumped together or sticking to other structures. The tumour(s) may have also spread to surrounding breast tissue

Stage IV: Tumour(s) that have spread to other organs in the body e.g. lungs, liver or bone. This is sometimes referred to as 'invasive cancer'.

These stages are further grouped into three main stages of breast cancer:

Early stage, which refers to cancer that is confined to the fatty tissue of the breast.

Locally advanced, which has spread to underlying tissue of the chest wall.

Advanced or metastatic, where the tumour has spread to other parts of the body. Approximately one third of breast cancer cases are diagnosed after the cancer has spread beyond the primary tumour site (metastasised).

Types of breast cancer

The type of breast cancer is important in determining the most effective treatment approach. The most common way to classify breast cancer is according to the status of three specific cell surface receptors. These are the oestrogen receptor (ER), progesterone receptor (PR) and the Human Epidermal Growth Factor Receptor (HER)2/ neu receptor.

Hormone Receptor-Positive breast cancer: The most common type of breast cancer is known as **Hormone Receptor-Positive breast cancer**; accounting for around 75% of all breast cancers. This type of cancer grows in response to hormones oestrogen and progesterone, and as such it is more likely to respond to therapies that aim to inhibit the growth effects of hormones.

HER2-positive breast: Another sub-type of hormone dependent breast cancer is classified as the **‘HER2-positive breast cancer’** which is typified by cells that make too much of a protein known as HER2/neu. It represents 20–30% of Hormone Receptor Positive breast cancers. Tumours that do not overexpress HER2/neu are described as HER2-negative.

Triple negative breast cancer (TNBC): **Triple negative breast cancer** is a rarer form of breast cancer which is a sub-type of HER2-negative disease. TNBC refers to tumour cells which lack oestrogen and progesterone receptors, and do not overexpress the HER2 protein. This cancer type accounts for around 15% of all breast cancers, and is usually more aggressive and difficult to treat as it does not tend to respond to standard therapies. Due to the aggressive nature of this disease it is important to treat patients early; however, with few effective treatments available there is a high unmet medical treatment need for this type of breast cancer.

SECTION FIVE: TREATMENT OF BREAST CANCER

Breast cancer treatment options vary depending on the stage of the cancer – its size, position, whether it has spread to other parts of the body and the physical health of the patient. Current treatments for breast cancer include surgery, radiotherapy, chemotherapy, hormonal and targeted therapies. These therapies may be used alone or in combination depending on the stage of the disease.

Surgery

This is the main treatment option for patients whose breast cancer has not spread to other parts of the body and is also an option for more advanced stages of the disease. The types of breast cancer surgery differ in the amount of tissue that is removed with the tumour; this depends on the tumour's characteristics, whether it has spread, and the patient's personal feelings.

Some of the most common types of surgery include:

- a. **Breast conservation surgery** - which involves the removal of the cancerous area, the surrounding tissue and in some cases the lymph node, with aim of maintaining a normal breast appearance after surgery. There are two types of breast conservation surgery:
 - ◇ **Lumpectomy** - This is the removal of the cancerous area and small surrounding area of normal tissue.
 - ◇ **‘Partial Mastectomy’** or ‘Quadrantectomy’; this is where a larger portion of tissue is removed (compared with Lumpectomy). Some lymph nodes under the arm may be removed.
- b. **Total Mastectomy.** This surgery involves the removal of the entire breast, without the removal of lymph nodes. This can be performed in an attempt to prevent further cancer.

NB: Surgery can also be followed or preceded by radiotherapy and/or chemotherapy, either sequentially or in combination.

Post-surgery care

The breast cancer patient is advised to:

Keep the wound clean,

- Eat a well-balanced diet- right amount, right variety and good quality food (hygienic, not adulterated)
- Exercise regularly but not vigorously,
- Seek advice on how to obtain artificial breast (breast prosthesis),
- Speak to your doctor if you wish to undergo breast reconstruction.

Radiotherapy

During radiation treatment, a radiation machine is used to send high energy rays, usually x-rays and similar rays to destroy cancer cells that might have remained in the affected area after surgery. Therapy with radiation is often used in addition to surgery and chemotherapy to reduce the chances of the cancer recurring. It can be given after surgery (known as adjuvant treatment) or in conjunction with chemotherapy prior to surgery (neoadjuvant therapy) to shrink the tumour. Radiotherapy can also be used without surgery in patients with advanced metastatic breast cancer to help alleviate symptoms.

Cancer patients usually receive radiation treatment five days a week for six weeks. The radiation process is painless and last only a few minutes.

Usually a patient goes through mapping procedure to identify the treatment area before receiving the radiation dose.

Chemotherapy

Chemotherapy is the use of anti-cancer drugs that travel through the blood stream to kill cancer cells anywhere in the body. It is usually delivered through intravenous (IV) injections, sometimes combined with pills. Chemotherapy may be given prior to surgery (neo-adjuvant) with the aim of reducing tumour size and the need for extensive surgery, or after surgery (adjuvant) to reduce the chances of the cancer coming back.

When the cancer has spread to other parts of the body (metastatic), chemotherapy may be used to reduce symptoms, improve quality of life and extend survival. Chemotherapy drugs can be given intravenously (directly into the blood), or orally in a tablet. Chemotherapy is typically associated with adverse side effects such as fatigue, nausea and diarrhea; this is because of its toxic in which even some normal cells are attacked.

Hormonal therapy

Medicines that block or inhibit the actions of the hormones oestrogen and progesterone are often used in the treatment of patients with Hormone Receptor-Positive breast cancer.

Targeted therapy

Targeted therapies (also called biological therapies) are a relatively new approach to cancer treatment and target specific biological processes that are often essential to tumour growth. Targeted therapies precisely target cancer-specific processes, making them effective and less toxic to non-cancerous, healthy cells.

Several types of targeted therapy exist for the treatment of advanced breast cancer. These are either given just after chemotherapy as maintenance or in conjunction with other therapies e.g. chemotherapies or hormonal therapies at various stages of advanced disease in accordance with their approved label.

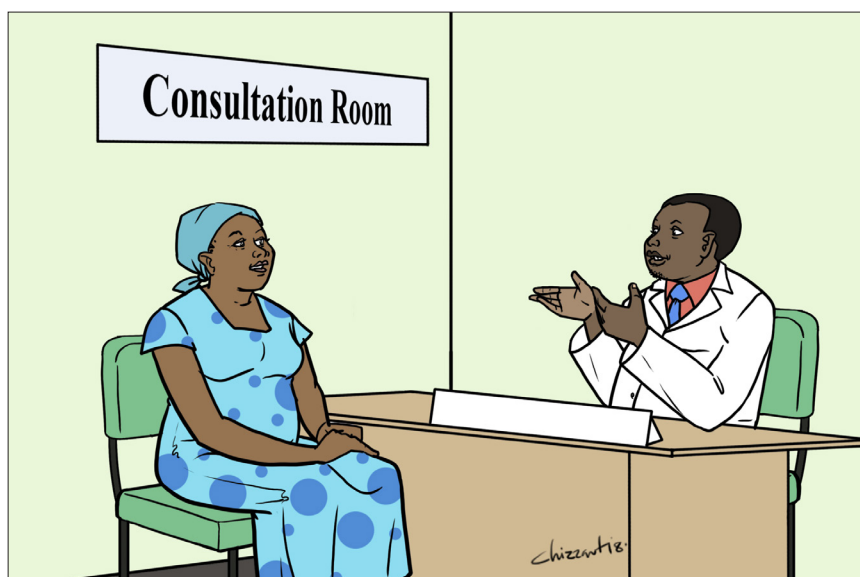
Follow up care

It is important to have regular follow-up exams after breast cancer treatment to ensure that any changes are noticed early.

Examination of the breasts, chest, neck and underarm areas are usually included in the follow-up exams. Periodic mammograms may be recommended by the doctor.

Changes in the treated breast or in the other breast should be reported to the doctor right away.

Tell your doctor about other physical problems like loss of appetite, weight loss, blurred vision, dizziness, headaches, shortness of breath, digestive problems that don't go away.



Common myths about breast cancer

These do not cause Breast cancer:

- Breast cancer is not contagious; you can't contract cancer from a person who has the disease.
- Breast cancer is not caused by wearing bras, as myths often suggest
- Breast cancer is not caused by implants, as myths often suggest
- Breast cancer is not caused by deodorants and antiperspirants, as myths often suggest
- Breast cancer is not caused by microwaves, or cell phones, as myths often suggest

References

1. National Cancer Institute: <https://www.cancer.gov/publications/patient-education/wyntk-breast-cancer>
2. National Cancer Institute. 2013. SEER stat fact sheets: Breast.
3. American Cancer Society: <https://www.cancer.org/cancer/breast-cancer/about/what-is-breast-cancer.html>



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