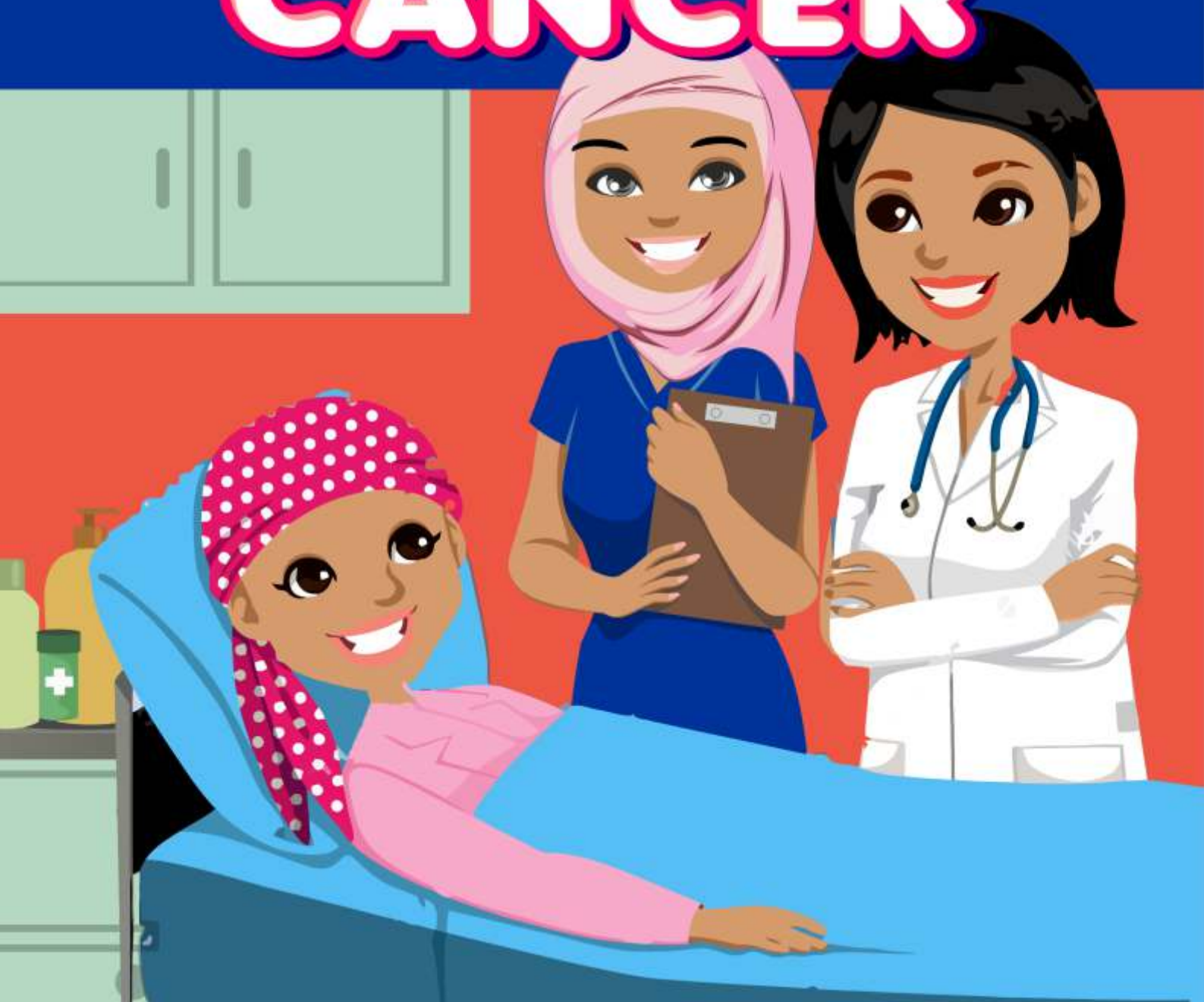


ABC OF CANCER



MCF **MEDICAID**
CANCER FOUNDATION

ABC OF CANCER



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Special Foreword: Malaysia 2018



Dr. Zainab Shinkafi Bagudu
UICC Board of Director Nominee

Medicaid Cancer Foundation is a 10-year-old organisation that has been at the forefront of cancer advocacy in Nigeria.

One of the objectives of the Foundation is to create awareness among people on cancer and dispel wrong myths. A lethal combination of High illiteracy rate and cultural misnomers remains a big problem for us in Africa's Low-Middle Income Countries (LMICs).

60-70% of global Cancer deaths with the figure is expected to rise dramatically by 2025.

The handbook employs the use of cartoon characters and illustrations to engage our younger ones so we can equip them with the importance of making healthy lifestyles choices as well cancer signs early. This way, the next generation can take control of their health.

A great deal of commitment and hard work went into the development of this handbook-ABC of Cancer. It is a non-profit resource; and part of the Foundation's ongoing School Advocacy, Education and Prevention Programme in Nigeria.

As the key lead of MEDICAID Cancer Foundation, I have seen all the ugly sides of Cancer. We will continue to work hard with the belief creating awareness amongst the youth and ultimately the most cost effective and guaranteed to improve early detection.

As I face election to the UICC Board in Malaysia 2018, I hope that we can network and pull our experiences, skills, and resources together for the good of all cancer patients.

The opportunity to serve on the Board of UICC will strengthen the vision and advocacy role of the Foundation in Nigeria, Africa and beyond.

Wishing all delegates a fruitful deliberation.

Acknowledgement



Medicaid cancer foundation wishes to acknowledge the hardwork creativity and passion of Musa Ahmadu and Ugonna Steven in the course of preparing this very intellectual and creative handbook.

We sincerely appreciate the entire members of Nigerian Civil Societies and Faith-based Organisations for their commitment and dedication to always speaking up about cancer issues.

We dream of in Nigeria, indeed the world with increased awareness, early diagnosis and cheaper treatment for cancer.

ABOUT MEDICAID CANCER FOUNDATION



Being diagnosed with Cancer is a life-altering experience for the patient, family and care-givers. Medicaid Cancer Foundation (MCF) was conceived to create a support system for patients, families and care-givers dealing with Cancer. The MCF in 29,952 hrs of operations has screened over 30,000 individuals for Cancer.

Given the prevalence observed at Medicaid Radio-Diagnostics where many people are diagnosed with Cancer and are unable to raise the needed funds for treatment, coupled with the helplessness of patients to manage their conditions propelled the founding of Medicaid Cancer Foundation (MCF) in 2014 with a vision of increasing awareness about the disease, reducing mortality rate and providing palliative care for Cancer patients.

The scope of our activities in this regard range from diagnosis to interactive sessions with patients in the course of treatment and care. We monitor the journey to full survivorship, managing the life-changing experience for patients, families and care-givers.



What is Cancer?



Cancer is a disease caused by an uncontrolled break up of abnormal cells in any part of the body. Cancer is also a deadly growth or mass caused by uncontrolled break up of cells.

What is a Cell?

A Cell is the smallest unit of life that can reproduce independently. Cells are so tiny that the human eye cannot see them so a Microscope is used to see Cells.

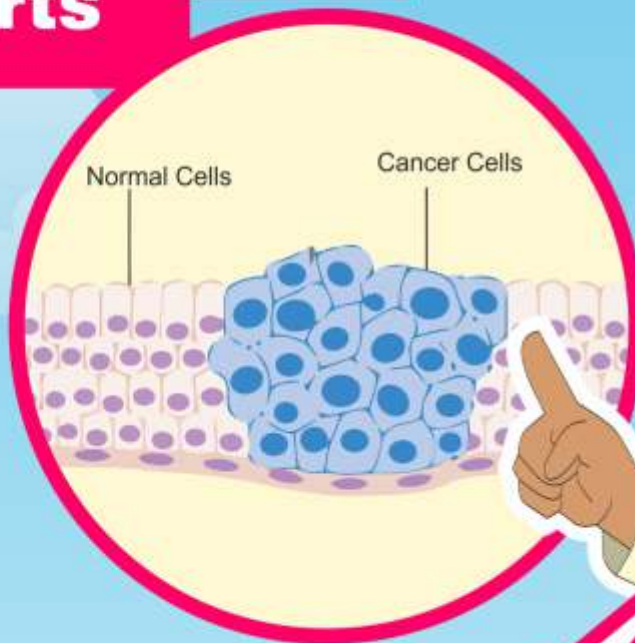
History of Cancer

Cancer has existed for all parts of human history, but the earliest written record of Cancer dates as far back as 1600 BC in an ancient Egyptian medical treatment record.

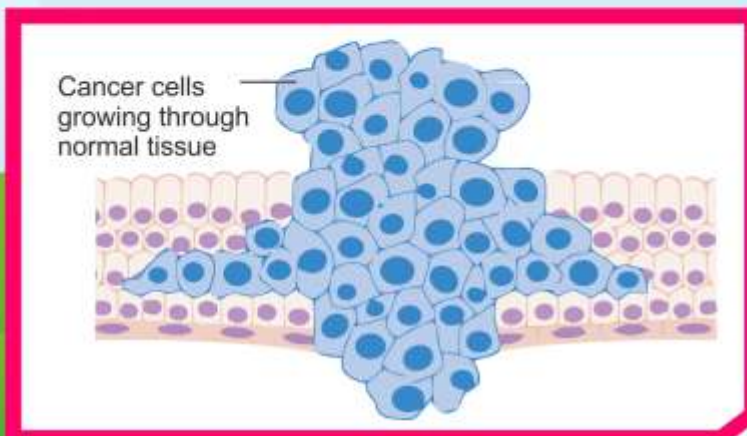
Hippocrates of Kos (460 BC - 370 BC) a Greek Physician describe several kinds of cancer using the Greek word Karkinos (Crab or Crayfish)



How Cancer starts



Cancer originates from the cells in the Human body which are in millions (1,000,000). These cells start to grow and multiply fast and form a **Lump** that disturbs the body from functioning.



To start with, Cancer cells are contained within the body tissue from which they have developed. The newly developed Cancer cells grow and divide to create more cells and eventually form a Tumour.

A Tumour may contain millions of cells.

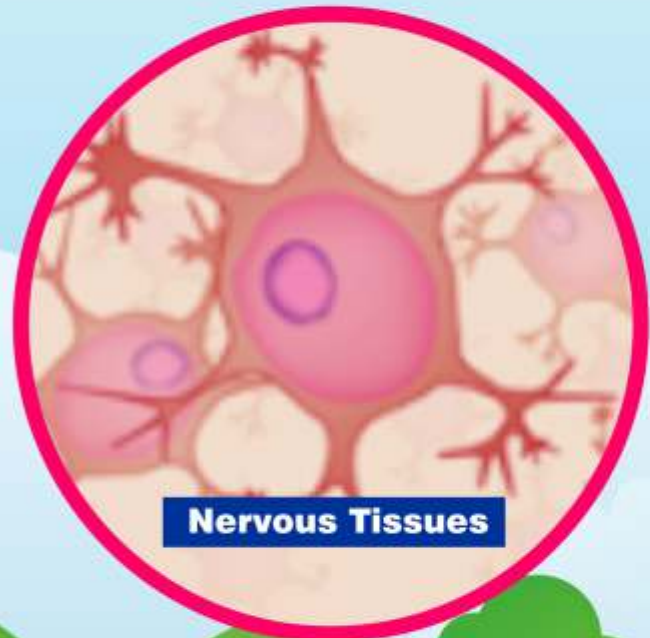
What is a Lump?

In medical terms a Lump is a growth usually visible and comprises of tissues.



What is a Tissue?

A Tissue is an organisation of similar cells from the same origin that together carry out specific functions within an organ.



Examples of Tissues



Connective Tissues



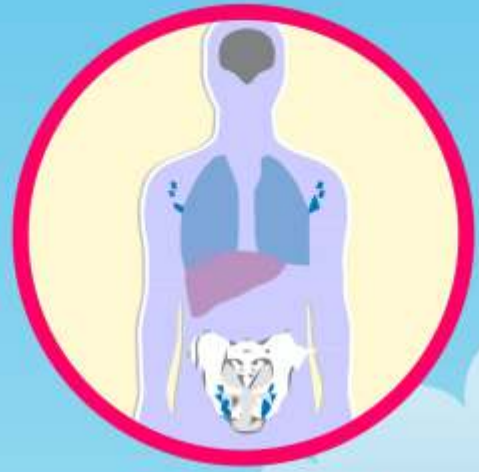
Epithelial Tissues



Muscle Tissues

What is an Organ?

An Organ is a collection of tissues with similar function. Many organs exist together as a system.



Examples of Organs and Systems



Heart

Circulatory



Lungs



Nose

Respiratory



Kidneys



Bladder

Excretory



Uterus

Reproductive



Brain

Nervous



Liver

Digestive



Skeletal

What is a Gene?



Genes are a group of living matter, smaller than a Cell which carry instructions for growth, development, function and reproduction of all living organisms.

Genes can be divided into groups:

1. Genes that promote cell growth and reproduction.
2. Genes that prevent cell division and survival.

If Genes responsible for the activity of cell growth and reproduction over perform or fail to perform their duty, it could lead to the creation of Cancer Cells.

Also, if Genes responsible for preventing cell division and survival, over perform or under perform their duty, it could also create a Cancer Cell.

Cancer Cells have the ability to move from Parent to Offspring, Cancer cells can also spread from one cell to another.

Causes of Cancer

Most Cancers result from the action of environmental and social factors on Genes.



Lifestyle

Alcoholism
Smoking
Poor Nutrition
Contamination
High salt intake

Radiation

Radioactive elements
Ultra-violet radiation

Chronic Infections

Bacterial infection
Viral infection

Other Factors include

Hereditary

Passing on a genetic defect from Parent to Offspring.

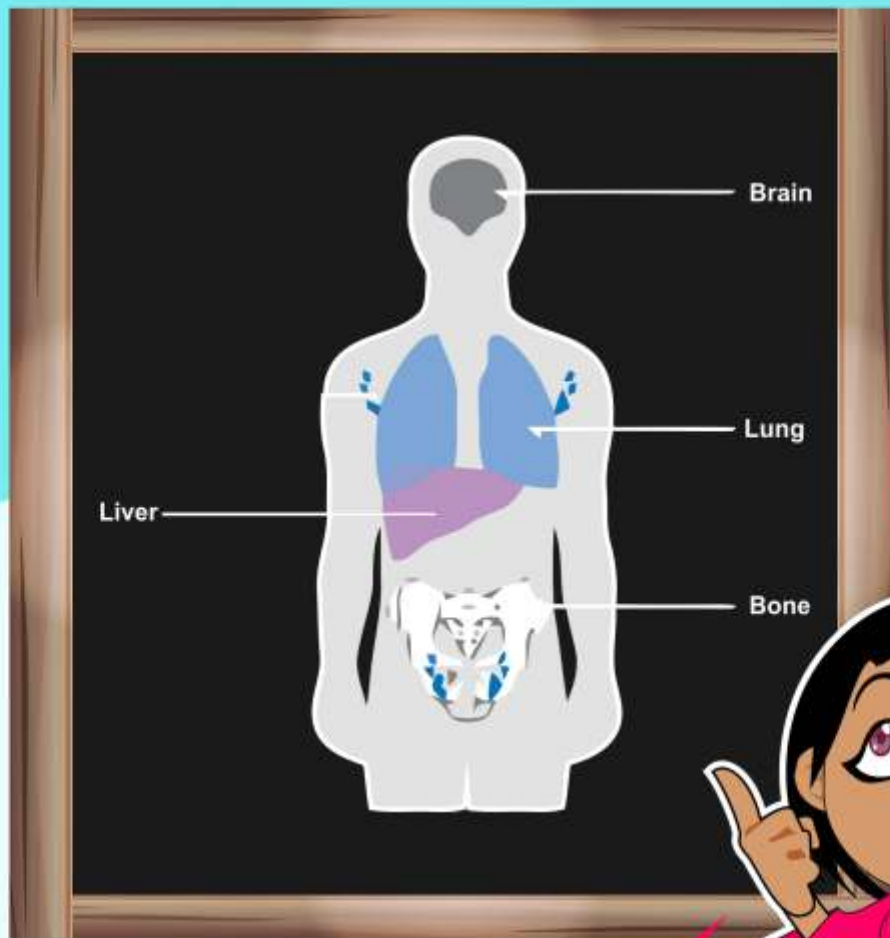
Exposure to Chemical Compounds

Prolonged exposure to industrial minerals, usually found in mines.

Autoimmune Disease

This is when the immune system attacks the healthy cells instead of infections, that is, self attacking self.

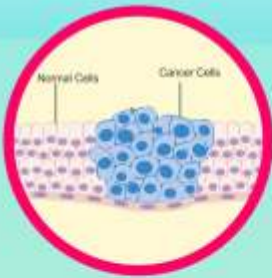
Cancers can spread to other parts of the Body



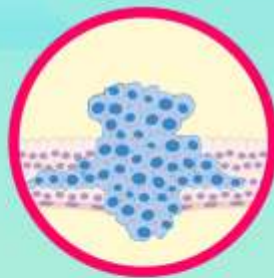
Cancer can spread from where it starts to other parts of the body . This is known as **METASTASIS**.

Cells from the first Cancer break away, travel to other parts of the body and start growing there. Cancer Cells do not stick together as normal cells do. They may also produce substances that stimulate them to move.

Types of Tumours



Benign Tumour



Malignant Tumour



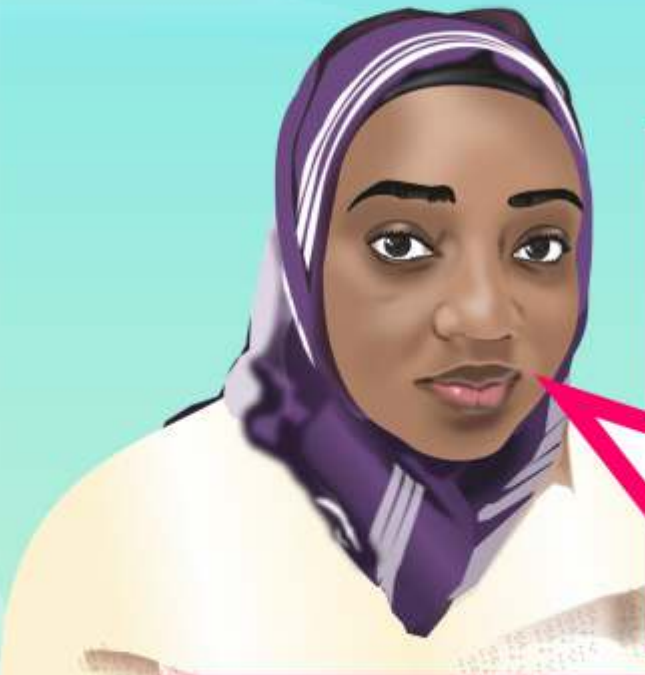
What is a Tumour

A Tumour is the result of continuous growth of Cancer Cells that create a Lump. The Lump is known as a Tumour.

Tumours (Lumps) can be **Benign or Malignant**.

BENIGN	MALIGNANT
Slow Growth	Faster Growth
Do not spread	Can spread
Cannot Compress	Can compress
Cannot reoccur	Can reoccur

Breast Cancer



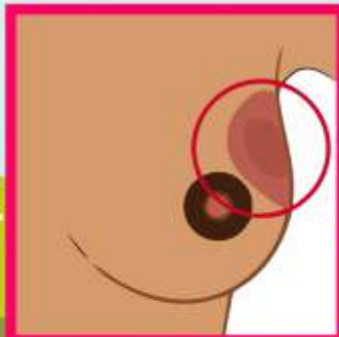
Breast Cancer starts when the Breast begins to grow out of control. The cells usually form a tumor that can often be seen on a x-ray or felt as a Lump. The Tumor is malignant (Cancerous) if the cells can grow into surrounding tissues.

Breast Cancer occurs almost entirely in women, but 1% of men can also get Breast Cancer.

Signs of Breast Cancer



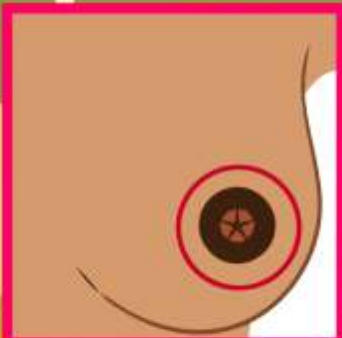
Texture Changes around the Nipple



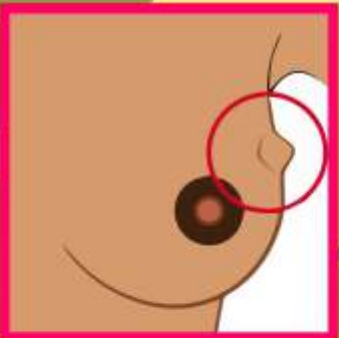
Redness/Rash



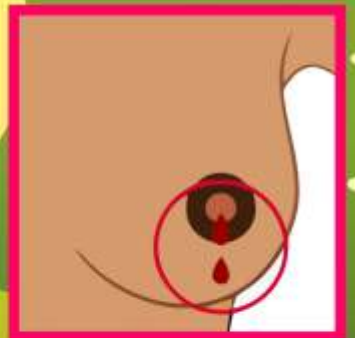
Nipple Discharge



Retraction of the Nipple



Lump in the Breast



Bloody Discharge

Tests for Breast Cancer



Breast Cancer Early Detection and Diagnosis

Many women with Breast Cancer have no symptoms. This is why regular Breast Cancer screening is so important.

Different tests can be used to diagnose Breast Cancer.

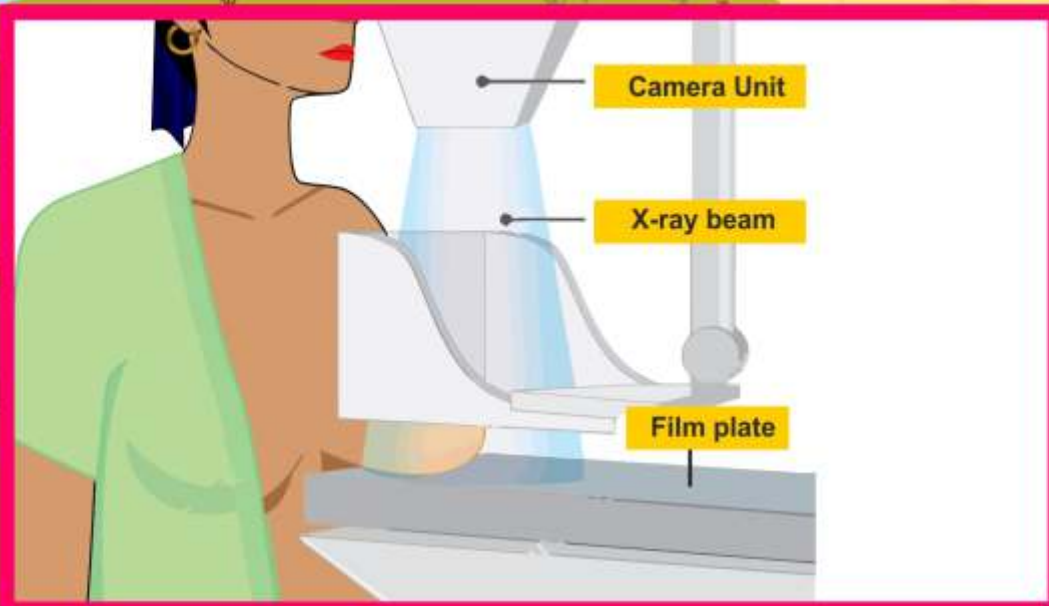
Commonly used tests are:

- o Mammograms
- o Breast Ultrasound
- o Breast MRI Scans
- o Biopsy

Mammogram is an X-ray of the Breast



A Mammogram is an X-ray of the Breast. It can be used to check for Breast Cancer in patients who have no obvious signs of the disease. It can also be used if a Lump or other signs has been seen.



During a mammogram, a patient's Breast is placed on a flat support plate and compressed with a parallel plate. An X-ray machine produces a small X-ray that takes the picture.

Breast Ultrasound



Breast Ultrasound can be used to examine some types of breast changes, especially in younger women below 35 years.

Ultrasound is widely available, cheap, easy to access and does not use radiation.



Breast Ultrasound uses sound waves to make a computer generated image.

Breast Magnetic Resonance Imaging (MRI)



Breast MRI (Magnetic Resonance Imaging) uses radio waves and strong magnets to make detailed pictures of the inside of the breast.

MRI can find some Cancers not seen on a Mammogram.

Breast MRI is often used in patients who already have been diagnosed with Breast Cancer, to:

- help measure the size of the Cancer,
- look for other tumors in the breast, and
- check for tumors in the opposite breast.



Breast Biopsy



Is a test that removes tissue or sometimes fluids from the suspicious area within the Breast. The moved cells are examined under a microscope and further tested to check for the presence of Breast Cancer.

A biopsy is the only diagnostic procedure that can definitely determine if a suspicious area is cancerous or not.

Types of Breast Biopsy

- Fine Needle Aspiration
- Core Needle Aspiration
- Surgical procedure



FINE NEEDLE ASPIRATION



CORE NEEDLE ASPIRATION



SURGICAL PROCEDURE

Which treatments are used for Breast Cancer?



There are several ways to treat Breast Cancer, depending on its type and stage.

Treatments

In some treatments, the tumor is targeted without affecting the body.

Types of local therapy used for Breast Cancer include:

- Surgery
- Radiation therapy
- Chemotherapy

Breast Cancer can be removed by surgery. The patient might need other types of treatments before or after surgery.

Surgery for Breast Cancer

There are different types of surgery used to treat Breast Cancer.

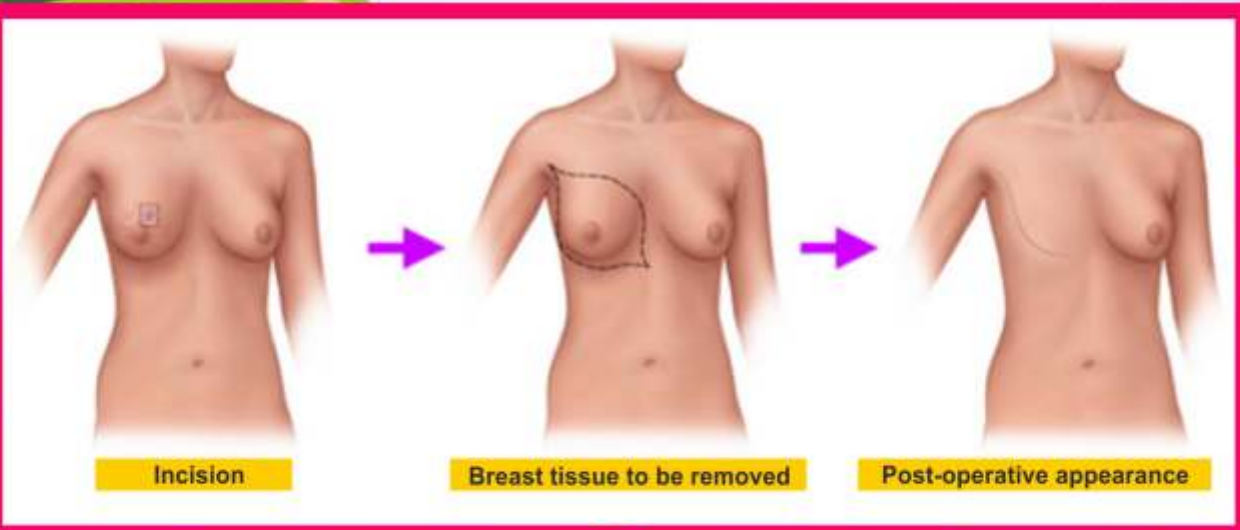
Surgery may be done to:

- Remove as much of the Cancer as possible (Breast-conserving surgery or mastectomy)
- Find out whether the Cancer has spread to the lymph nodes under the arm.
- Restore the Breast's shape after the Cancer is removed (Breast reconstruction)
- Relieve symptoms of advanced Cancer

Mastectomy

Mastectomy is removal of the entire Breast. All of the Breast tissue and sometimes other nearby tissues can be removed. There are several different types of mastectomies.

Double Mastectomy, is when both Breasts are removed.



Radiation for Breast Cancer

Radiation Therapy



Radiation therapy is treatment with high-energy rays or particles that destroy Cancer cells.

Not all women with Breast Cancer need radiation therapy, however, it may be used in several situations.

- After surgery, especially if the Cancer is still found in the body.
- If Cancer has spread to other parts of the body, such as the Bones or Brain.

Drugs for Breast Cancer (Chemotherapy)



Chemotherapy is treatment with drugs that kill Cancer cells. Occasionally, Chemotherapy may be given directly into the spinal fluid which surrounds the Brain and Spinal Cord.

Possible side effects of Chemotherapy for Breast Cancer

Hair loss

Loss of appetite

Vomiting

Nail changes

Weight changes

Diarrhea

Mouth sores

Nausea

Fatigue

Hormone Therapy for Breast Cancer



Hormone Therapy is recommended for women with receptive hormones.

When is Hormone Therapy used?

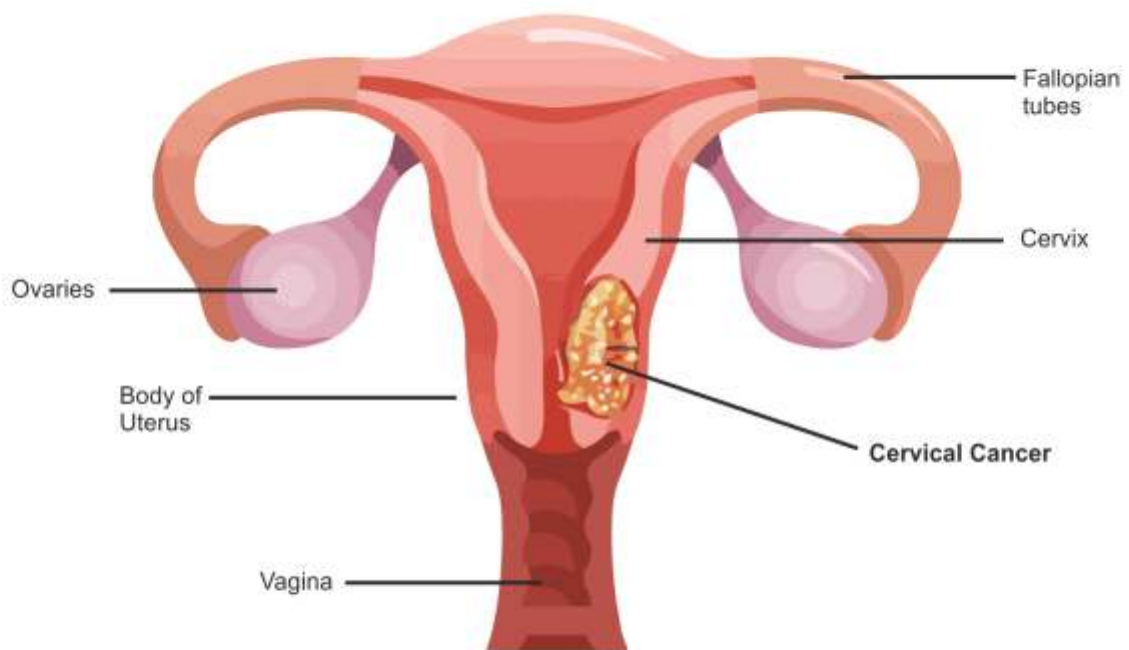
Hormone Therapy is often used after surgery to help reduce the risk of the Cancer coming back. It can be started before surgery as well. It is usually taken for at least 5 years.

Hormone therapy can also be used to treat Cancer that reoccurs.

What Is Cervical Cancer?



Cervical Cancer affects lining the Cervix , which is the lower part of the Uterus. The Cervix connects the body of the Uterus to the Vagina, that is, the 'neck' of the Uterus and the 'door' through which a Baby passes through during delivery.



Symptoms of Cervical Cancer



There are a number of symptoms that indicate early stages of Cervical Cancer, they include:

- Pelvic Pain
- Tiredness
- Irregular bowel movements
- Abnormal Vaginal bleeding,
- Unusual Vaginal discharge
- Pain during sexual intercourse.

Ignoring symptoms may allow the Cancer to grow to a more advanced stage, thus lowering chances for effective treatment.

Risk Factors of Cervical Cancer

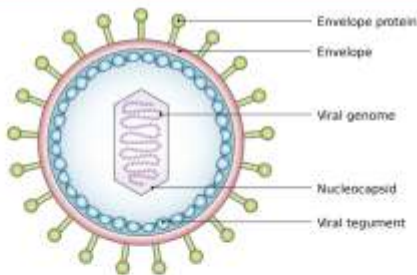


Several risk factors increase the chance of developing Cervical Cancer. Women without any of these risks factors rarely develop Cervical Cancer.

- HPV - Human Papilloma Virus
- Smoking
- Weak Immune system
- A low diet in fruits and vegetables
- Being Overweight
- Getting pregnant at a very young age
- Multiple sexual partners



Human Papilloma Virus (HPV)



Human Papilloma Virus (HPV) is a viral infection that is passed between people through skin-to-skin contact.

How HPV is contacted

Most people get HPV through direct sexual contact. HPV is a skin-to-skin infection, intercourse is not required to contact the infection. In rare cases, a mother who has HPV can infect her baby during delivery.

Symptoms

Unfortunately, because HPV often has no signs or symptoms, many people who have the virus do not even know.

Risk Factors

- Skin-to-skin contact
- Unprotected Sex
- Multiple Sex partners

Treatment

Most cases of HPV go on their own, however, there is no treatment for the infection itself. In most cases, vaccines can prevent the infection.

Tests and Treatment of Cervical Cancer



Testing

Pap Smear Test - Is a screening test. It cannot tell for certain if one has Cervical Cancer. An abnormal Pap test means more tests are required to confirm if Cancer is present.

Colposcopy - Is a medical diagnostic procedure to examine a magnified view of the Cervix and tissues of the Vagina and Vulva with the aid of a camera.

HPV Tests

If there is a diagnosis of Cancer, the doctor should refer the patient to a Gynecologic Oncologist, a specialist in Cancer of women reproductive systems.

Treatment

There are 3 basic ways to treat Cervical Cancer:

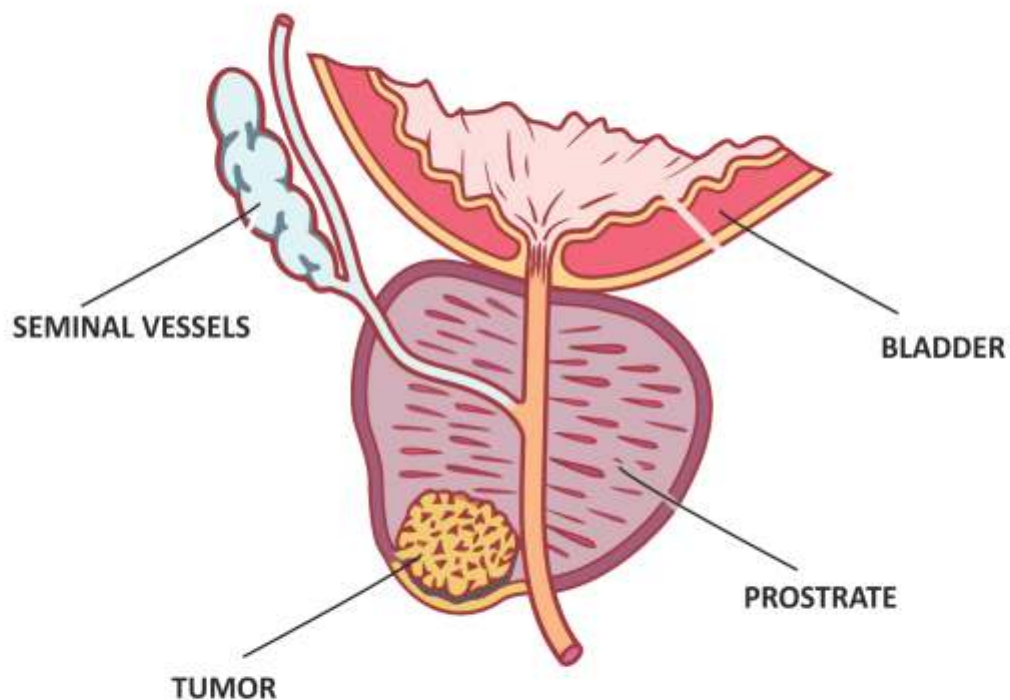
- Surgery
- Radiation therapy
- Chemotherapy

Prostate Cancer



Prostate Cancer is a form of Cancer in a male reproductive organ.

Prostate Cancer is mostly common among men. It can often be treated successfully if detected early.



Risk factors Prostate Cancer



- Age
- Inflammation of the prostate
- Race/ethnicity
- Geography
- Family history
- Gene changes
- Diet
- Obesity
- Smoking
- Sexually transmitted diseases (STDs)

Symptoms of Prostate Cancer



Prostrate Cancer can sometimes present symptoms such as:

- Problems passing urine
- Blood in the urine or semen
- Problems getting an erection
- Pain in the hips, back, chest
- Weakness or numbness in the legs or feet
- Loss of bladder or bowel control

Treatment of Prostate Cancer

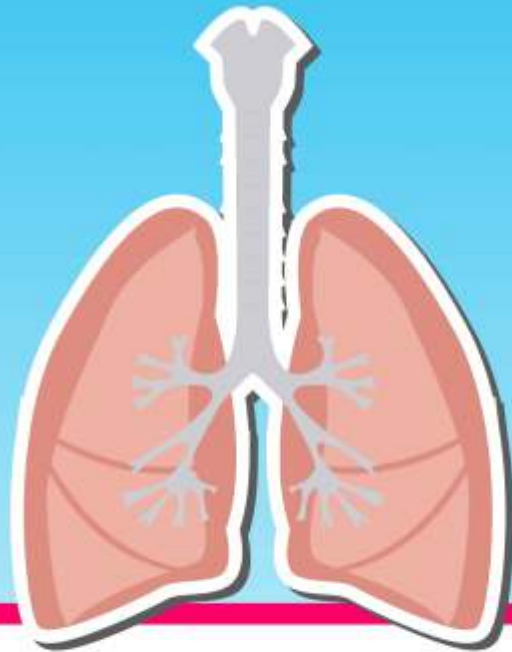


Treatment options for men with Prostrate Cancer includes :

- Surgery
- Radiation therapy
- Chemotherapy

These treatments are used one at a time and in some cases combined.

Lung Cancer



Lung Cancer is caused by smoking, through secondhand smoke, or other environmental factors. But some Lung Cancers occur in people without any known risk factors for the disease. In most cases Lung Cancer could be prevented by reducing exposure to smoke.

Stay Away from Tobacco, Drugs, Alcohol



The best way to reduce the risk of Lung Cancer is not to smoke and to avoid breathing in other people's smoke.

Limiting exposure to secondhand smoke might also help lower risk of Lung Cancer.

Symptoms of Lung Cancer



Most Lung Cancers do not present symptoms until they have spread. The most common symptoms of Lung Cancer are:

- A harsh cough
- Coughing up blood
- Chest pain
- Weight loss
- Loss of appetite
- Shortness of breath
- Feeling tired or weak

Challenges of having Cancer in Nigeria and Africa



There are not enough radiotherapy machines in most countries.

National Health Insurance does not cover Cancer treatment making patients and their families spend a lot out of their pockets.

Other infectious diseases compete with Cancer. Money has to be spent on them also.

We do not have enough doctors, nurses, caregivers to look after the sick.

Medicines used to treat Cancer (Chemotherapy) are expensive and not all available in Nigeria.

Absence of National Cancer screenings (most Cancer screenings, like the ones MCF does are sporadic which does not encourage early detection).

Preventive Vaccine for Human Papilloma Vaccine (HPV) which leads to Cervical Cancer is not given free to young school girls.



Palliative Care

Palliative care refers to care given to improve the quality of life of cancer patients who have a serious or life-threatening advanced cancers.

Palliative care is also called comfort care, supportive care, and symptom management. Cancer patients may receive palliative care in the hospital, in an outpatient clinic, a long-term care facility, hospice or at home under the direction of a physician.

Palliative Care is such an important area of Cancer care in Africa, because many patients are diagnosed at late stages and not much can be done for them beyond this. We need better palliative care so that Cancer patients can live their last days and pass on with dignity.

**The author of the handbook “ABC ON CANCER”,
Dr. Zainab Shinkafi Bagudu, is the wife of the
Executive Governor of Kebbi State**

