BRAVE

Your guide to understanding cancer

I AM POWERFUL

UNITED BY UNIQUE®

WO 30
CANCER ASSOCIATION OF NAMIBIA

All Cancers
lavender

Appendix Cancer
amber

Bladder Cancer
gold/blue/purple

Bone Cancer
yellow

Brain Cancer
grey

Breast Cancer
pink

Cervical Cancer
teal/white

Childhood Cancer
gold

Colorectal Cancer
dark blue

Liver Cancer
green

Esophageal Cancer
periwinkle

Hodgkins Disease
orchid

Kidney Cancer
orange

Head+Neck Cancer
burgundy/ivory

Leiomyo-sarcoma
purple

Lung Cancer
white

Melanoma
black

Lymphoma
lime

Multiple Myeloma
burgundy

Leukemia
orange

Oral Cancer
burgundy/ivory

Ovarian Cancer
teal

Sarcoma
yellow

Prostate Cancer
light blue

Pancreatic Cancer
purple

Stomach Cancer
periwinkle

Gallbladder Cancer
kelly green

Testicular Cancer
orchid

Thyroid Cancer
teal/pink/blue

Uterine Cancer
peach

The Cancer Association of Namibia - Established in 1968, the association became independent from South Africa and changed its name to the Cancer Association of Namibia in 1978.

The Cancer Association of Namibia, in cooperation with the community, fight cancer and its consequences countrywide to the benefit of all Namibians by supporting research; health education and information; as well as care and support services. It is the distinct aim of the Cancer Association of Namibia (CAN) to educate the general public regarding the prevention, early detection and dangers of cancer. CAN also renders a welfare service to cancer sufferers according to established criteria.

- **Education** - Supplying information is an ongoing process. By way of our program and on invitation, we raise awareness in different sectors of the community, i.e. schools, farm com munities, religious denominations, organizations for women, corporate exhibitions and CAN fundraisers.

- **Research is costly** - Every year the association sets funds aside to support research. In 2003 CAN presented the first ever Namibian Cancer Registry to the Ministry of Health and Social Services. This Register is updated regularly, and results are published every 3 to 5 years.

- **Governing Body** - CAN is governed by a Board of Directors elected from the broad public at an Annual General Meeting every second year. It comprises a President, a Vice-President, Treasurer and 5 additional members that sit on a voluntary basis. The Chief Executive Officer oversees the functions of the head office and direct operations as well as all subcommittees (all volunteers) throughout Namibia. CAN is audited annually to ensure transparency and full accountability of operations.

House Acacia Interim Home - Contact the Cancer Association of Namibia for more information for cancer patients not residing in Windhoek.

- Patients often stay in Windhoek for up to 6 consecutive weeks for their treatment which is only available in the city
- Linen and towels are provided
- Three wholesome meals per day are prepared and served to patients
- Scheduled transport is available to treatment centres daily

CHICA Interim Home - At our House Acacia and CHICA Home, we understand medical transitional housing requirements and your need to feel comfortable in a home-like setting. We work closely with all the local treatment hospitals and medical facilities, as well as doctors and specialists.

- Child cancer patients and mothers stay complimentary during treatment, subject to a safety policy and accommodation guideline.

The Cancer Association of Namibia hopes that the services we offer patients who need a helping and, can lessen the burden - if only just a little. Thank you to all donors and sponsors who allow us to keep the doors to our homes open.

Projects and fundraising - Operations and administration isfunded by fundraising initiatives and donations. CAN receives zero foreign aid or money from government. A dedicated project coordinator and assisting colleagues work with the CEO to plan and execute our local and national fundraising drives.

Data and Research - CAN's dedicated staff administers the population-based Namibia National Cancer Registry. The data compiled in the registry helps the Ministry of Health and Social Services and CAN measure the economic impact of cancer and assists in planning prevention tactics to fight cancer in Namibia.

Patient Financial Assistance Programme - The financial assistance programme provides financial and/or transportation and/or commodity assistance to patients guided by a board approved policy. Our CHICA Fund supports childhood cancer patients financially during treatment.

Palliative Care Namibia - Aligned with the World Health Organization (WHO) Sustainability Goals (Number Three (SDG3)), the Cancer Association of Namibia remains focused on SDG3.4 the reduction of mortality from noncommunicable disease and promotion of mental health) and now move to bring palliative care to Namibia through our medical access partners – the University of Cape Town, Groote Schuur Hospital, Tygerberg Hospice, St Luke's Hospice and the South African Palliative Care Association. Our aim is to develop a centre of excellence for palliation in Namibia – while we are an organization with specialized interest in cancer care, palliative care does not extend to oncology only and we have therefore taken it upon ourselves to be the drivers of a truly inclusive care programme for Namibia. CAN through the Palliative Care Namibia structure, endeavours to capacitate caregivers and healthcare workers in both state and private systems, while also empowering family members to better

understand the needs of their loved ones when it comes to end-of-life palliative care.

Circle of Hope - The Standard Bank Family Support Centre & Circle of Hope was officially launched in 2016 as a peer - to - peer volunteer social support group for all cancers prevalent in Namibia. Officially being launched as a department in June 2017, the centre provides counselling services for the patient and family afflicted by cancer.

National Cancer Outreach Programme - This programme includes visits to rural Namibia to host community clinics and to equip and certify medical staff for screening of certain cancer types.

CAN Erongo Centre - The Erongo Centre was officially opened in 2017 to serve cancer patients in the Erongo Region. The Erongo office hosts community clinics, provides medical products and involves the Erongo community in the fight against cancer in Namibia through fundraisers and events.

Community Care Centre - COMMUNITY lies at the heart of our operations and while our core focus will always be cancer, we understand that our people and our community's needs are what matters. Separation of sexual reproductive health, mental health, cancer care and palliative care can no longer exist., because health matters intertwine and the one influences the other. The "Community Care Centre" or "Triple C" looks after the wellbeing of the community in a broader sense. The incorporation of continuous psychosocial support and care, while a community clinic that is operational Monday through Thursday, will be housed here as well.

The Cancer Education Guide for Namibia

The Cancer Education Guide for Namibia as presented by the Cancer Association of Namibia through the guidance of the Union for International Cancer Control (UICC) falls under the World Cancer Prevention Campaign of the UICC. The aim is to put cancer on the
global agenda and to scale up awareness of the fight against the disease, which in many countries still takes a back seat to other public health issues. World Cancer Day commemorated on 4 February annually, allows the Association the opportunity to raise public awareness through the media at a national level.

Namibians should pay close attention to this very important message:

- We have to make the necessary lifestyle changes which are in our control, and try to prevent cancer
- Know the early warning signs of cancer
- Go for screening tests
- Fear, ignorance and complacency lessen survival rates.

Dietary factors, physical inactivity, being overweight and obesity are estimated to account for approximately 30% of cancers in western countries. This proportion is thought to be about 20% in developing countries and is projected to increase. "Energy balance" is defined as a balance between energy intake, in the form of food and drink, and energy output, in the form of physical activity. An imbalance between energy intake and energy expenditure lead to weight gain or loss.

Risk Factors:

- Being overweight can lead to cancer later in life
- Regular exercise helps prevent cancer
- Stop smoking – prevent thousands of new cancer cases every year
- Limit alcohol consumption
- Eat 5 portions of fruit and vegetables daily

To reduce the burden of cancer, early detection is imperative.
Know the warning signs of cancer:

- A lump or thickening in the breast or elsewhere
- Unusual bleeding or discharge
- Change in normal bowel or bladder habits
- Hoarseness or cough
- Indigestion or difficulty in swallowing
- Change in a wart or a mole
- Sudden loss of weight

Why do we delay going to a doctor? Fear, ignorance, complacency or stigmatization. We urge every individual to take control of factors that can possibly prevent cancer. Together I Can, We Can, Namibia Can beat cancer.

What is Cancer?

The human body is made up of various cells. These cells are produced by an existing cell copying itself and splitting to produce two new cells (also known as cell duplication). This is called a cell cycle. When these cells continue multiplying even when the body does not need them (uncontrolled division of abnormal cells), the result is a mass or growth, also called a tumour. These growths are considered either benign or malignant. Benign is considered non-cancerous and malignant is cancerous. Benign tumours are rarely life threatening and do not spread to other parts of the body. They can often be removed.
Malignant tumours, however, often invade nearby tissue and organs, spreading the disease. They destroy normal tissue and are life threatening. There are a wide variety of tumours. Different cancers have features in common, but cancer is not a single disease and there are many different cell types. One feature of all cancer cells is the ability to divide outside the control of the organ in which they are growing.
Tumours, when untreated, release clumps of cells which are carried by the blood and/or lymphatic system to other parts of the body where it invades the new site, and metastases. The most important organs in which metastases can form is the brain, lungs, liver and bone.

How Can I Help Prevent Cancer?
Sun smart - When outside, protect your skin from the sun's rays and wear a hat and sunscreen to protect your skin from harmful UV rays. Wear long sleeves to protect your arms and avoid going out in the sun in the middle of the day when the UV rays are very strong.

Do a shadow test: When your shadow is shorter than you, the sun's rays are very strong. Protect your eyes, wear sunglasses and when you swim, sweat or dry your skin with towel, put on sunscreen.
Healthy diet - Eat a healthy and balanced diet. Eat dairy like cheese, yoghurt and milk. Eat protein like fish, eggs and meat, remove fat from meat, do not eat too much red meat. Eat cereal and grains (whole-wheat bread and porridge). Eat fruit, especially the brightly coloured ones; they contain antioxidants that help to repair damaged cells. Eat vegetables, especially the leafy, green ones like spinach/ cabbage that are rich in antioxidants and nutrients. Don't eat too many sugary foods like sweets, cakes or cool drinks. Sugar is a breeding ground for cancerous cells. Drink water to keep your body
hydrated and cells healthy, and it helps to remove toxins from the body.
Exercise - 30 minutes of daily activity – like sports, walking/ jogging to kill fat build-up. Swim, dance, ride a bike, run – cardiovascular exercise provides oxygen for good cells. Cancer cells hate this!

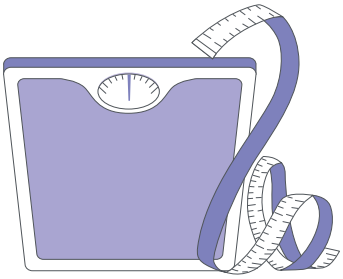
Can cancer be prevented?

Cancer risk can be reduced by adopting a healthier lifestyle.

Drink at least 8 glasses of water per day

Don't drink alcohol, if you have to, do it moderately

Get Active



Manage your weight

Enjoy fresh fruit & vegetables every day

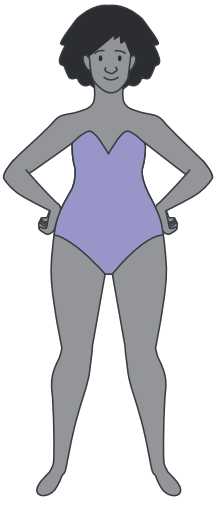
Manage your weight for a healthier lifestyle

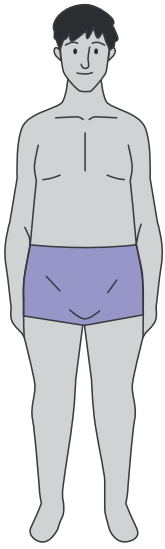
Formula

$$\text{BMI} = \frac{\text{Weight in Kilograms}}{\text{Height in m x height in m}}$$

BMI Chart

BMI less than 18.50	-	Underweight
BMI 18.50 - 24.99	-	Healthy weight
BMI 25.00 - 29.99	-	Overweight
BMI 30 or more	-	Obese





What are the common cancer types in Namibia?

The classification of the more than 300 different types of cancer is done according to the tissue from which each originated.

There are five primary groups:

1 - Epithelial tissue - Carcinoma
2 - Connective muscular tissue - Sarcoma
3 - Nerve tissue - Glioma (brain) Lymph node tissue - Lymphoma
4 - Bone marrow and blood - Leukemia.

The number 1 cancer type in Namibia is skin cancer.
Amongst women, breast cancer is number 1 followed by cervical cancer (increasing at an alarming rate!).In Namibian men, prostate and lung cancer is dominant.
When the immune system is suppressed, the risk of cancer increases. HIV/Aids, kidney transplant and stress affects the immune system and increases the risk of cancer.

Namibians should pay close attention to this very important message - We have to make the necessary lifestyle changes which are in our control, and try to prevent cancer. Know the early warning signs of cancer.

Go for screening tests. Fear, ignorance and complacency lessen survival rates.
Dietary factors, physical inactivity, being overweight and obesity are estimated to account for approximately 30% of cancers in western countries. This proportion is thought to be about 20% in developing countries and is projected to increase. "Energy balance" is defined as a balance between energy intake, in the form of food and drink, and energy output, in the form of physical activity. An imbalance between energy intake and energy expenditure lead to weight gain or loss.

Risk Factors - Being overweight can lead to cancer later in life, regular exercise helps prevent cancer. Stop smoking and limit alcohol consumption. Eat 5 portions of fruit and vegetables daily.

To reduce the burden of cancer, early detection is imperative. Know the warning signs of cancer - A lump or thickening in the breast or elsewhere. Unusual bleeding or discharge. Change in normal bowel or bladder habits. Indigestion or difficulty in swallowing or hoarseness or cough. Change in a wart or a mole or sudden loss of weight

Why do we delay going to a doctor?
Fear / Ignorance / Complacency / Stigmatization. We urge every individual to take control of factors that can possibly prevent cancer.

TOGETHER WE CAN, I CAN, NAMIBIA CAN FIGHT CANCER!

Types of cancer

Cancer of the head and neck

This cancer starts on the lips, the gums, the palate, the tongue, floor of the mouth, tonsils (oropharynx), nasopharynx (back of nasal cavity connected to throat) and the nasal cavity glands. The main causes for these cancers (90%) are alcohol and smoking (including snuff, chewing tobacco, "hubbly bubbly"). The remaining 10% is made up mostly of glandular origin. Cancer of the lips can also be caused by exposure to the sun and the first indications of the cancer are a white lesion on the mucous membrane, known as leucoplakia. Lumps in the neck or ear, any thickening, sores, swelling, loose teeth and bleeding must be regarded with suspicion and reported to your local medical practitioner.

Thyroid Cancer

The thyroid is a gland situated in the front part of the neck. Hormones are produced here that affect the heart rate, energy and body temperature. Thyroid cancer grows slowly and if detected early can be treated successfully. There are no known causes for thyroid cancer but there are risk factors – including radiation exposure, or a family history. Females are 2 to 3 times more likely to develop thyroid cancer.

- Age – older than 40 = higher risk
- Race – white people = higher risk
- Not enough iodine in the diet

Symptoms:

- Lump in front of the neck or pain in the throat or neck
- Hoarseness or difficulty speaking in normal voice
- Swollen lymph nodes in neck or difficulty swallowing or breathing

Bladder Cancer

Bladder cancer starts in the wall or lining of the bladder. It occurs mostly in people older than 40 and tobacco use is the major risk factor. Bladder infection with parasites (bilharzia) increase the risk for cancer. Men are 2-3 times more likely to develop bladder cancer, while people working in rubber, textile and leather industries are at higher risk. Symptoms include blood in the urine, pain during urination and frequent urination.

Kaposi Sarcoma (KS)

The most common site for KS is on the skin, but it may also affect internal organs, particularly the lymph nodes, the lungs and parts of the digestive system. Although KS is a type of cancer, it differs from other types of cancer as it can appear in several parts of the body at the same time, unlike other cancers which start in one place and spread to other parts of the body.

Causes:

- Most KS is caused by a virus called Human Herpes Virus (HHV8).
- It can affect people with a weakened immune system including people with HIV and AIDS.
- HHV8 is mainly spread through saliva, but can also be spread in blood and semen or from a mother to her unborn child. The virus can be passed on through sexual contact, kissing, blood transfusion and organ transplantation.

Colon and Rectum Cancer

This cancer develops in the colon (large intestine) or rectum or affects both organs and is then called Colorectal Cancer.

Risk factors:

- Age – more likely to occur in older people over 50, but can also occur in young people.
- Colorectal polyps that grow on the inner wall of the colon or the rectum. Most are benign (non-cancerous), but may become cancerous
- Family history – especially if the relative had cancer at young age
- Genetic changes in genes e.g. Familial polyposis. Ulcerative colitis or Crohn's disease – conditions of the colon that increase risk of developing colorectal cancer.
- Poor Diet: high in fat (especially animal fat); low in fibre; low in fruits and vegetables; cigarette smoking/ tobacco products; overweight/ obesity.

Prevention:

Regular screening (colonoscopy), especially with a family history, older than 50 as well as a change in diet and regular exercise.

Signs and symptoms:

- Blood in stools or change in bowl habits.
- Diarrhea, constipation and feeling that bowl does not empty completely.
- General abdominal discomfort (frequent gas, pains, bloating, fullness cramps).
- Weight loss, constant tiredness, nausea & vomiting.

Stomach Cancer

Stomach cancer affects mostly older people but is also known in younger people. A diet high in smoked, salted or pickled foods may contribute and increase the risk of stomach cancer. Helicobacter infection increases the risk of stomach inflammation and ulcers that increases the risk for cancer. Smoking and chronic gastritis are also strong contributors to cancer of the stomach.

Early stomach cancer often does not cause clear symptoms, but as the cancer grows, the most common symptoms are:

- Discomfort in stomach area
- Feeling full or blocked after a small meal
- Nausea, vomiting and weight loss

Bone Cancer

Osteosarcoma mainly occurs in children and young adults especially in the upper and lower leg in the vicinity of the knee and in the upper arm close to shoulder. The cancer originates from the cells which produce bone. Many tumors manifest after the patient has sustained an injury, but these tumors cannot be attributed to injury.

Bone Marrow Cancer (multiple myeloma)

This is a cancer of the plasma cells in the bone marrow. It inhibits functioning of the normal plasma cells (producing

antibodies) and this causes infection. The red and white blood cells can also be suppressed causing anemia and infections.

Kidney Cancer

Cancer of the kidneys occur most often in people older than 40.

The exact cause is unknown but there are certain risk factors: smoking, obesity and high blood pressure. Men are more likely than women to develop kidney cancer.

Symptoms include:

- Blood in the urine or fever or weight loss.
- Pain in the side that does not go away or a lump or mass in the side or abdomen.

Pancreas/ Pancreatic Cancer

The pancreas produces insulin and other hormones that help the body to use or store energy that comes from food. It also produces pancreatic juices that help with digestion.

Risk factors are:

- Older than 50, men are more prone.
- Smoking, alcohol and a high fat diet. diabetes or chronic pancreatitis.
- Family history or family history of colon and ovarian cancer.
- Pancreas cancer is called a silent disease because early pancreatic cancer often does not cause symptoms.

Symptoms:

- Pain in upper abdomen or dark urine.
- Yellow skin and eyes.
- Weakness & fatigue or nausea & vomiting.
- Loss of appetite and weight loss.

Liver Cancer

Secondary tumors (metastases) in the liver are more common than primary tumors.

Risk factors:

- People suffering from Hepatitis B – virus infection
- People with liver cirrhosis (chronic damage to liver because of alcohol abuse or certain drugs)
- Aflatoxin, a harmful substance that forms on peanuts, corn and grains – especially a problem in Africa and Asia.
- Often liver cancer is only diagnosed at a late stage.

Symptoms include:

- Pain in upper abdomen on the right side or a swollen abdomen
- Weight loss and loss of appetite or weakness, nausea & vomiting.
- Yellow skin & eyes or dark urine or fever.

Cancer of the Ovaries (Ovarian Cancer)

Cancer can start in the epithelial layer or in the cells in the ovum (germ cell tumor). The epithelial tumor is the most common. The germ cell tumor is more common in young women. No causes have been identified but disturbed hormonal function plays a role especially amongst women who have few or no children. Germ cell tumors are more common in younger women and among black population groups.

Lymphoma

This is cancer of the lymphatic system and is often formed in lymph nodes. The lymphatic system is an important part of our immune system and it helps usfight infection.

Lymphoma is often considered to be a silent cancer and its symptoms are often confused with other ailments such as colds and flu which lead to the disease being misdiagnosed.

Lymphoma and Non-Hodgkin's Lymphoma are the more common forms of lymphoma. The exact cause of lymphoma is unknown.

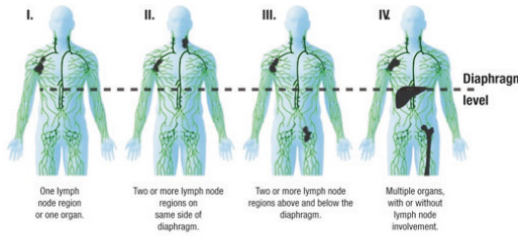
It can affect men and women of all ages but is more common in men. Patients diagnosed with HIV/ AIDS are also at high risk to develop Non-Hodgkin's Lymphoma.

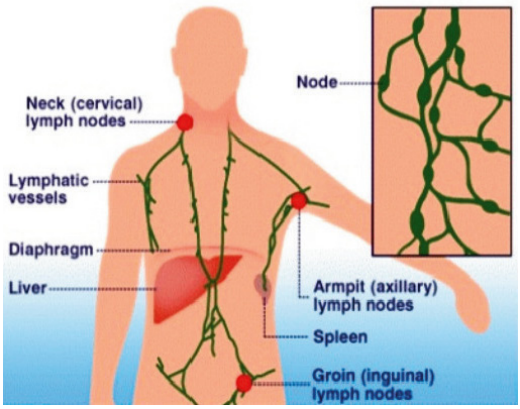
Signs and Symptoms:

- Recurrent or persistent fevers
- Drenching night sweats
- Unexplained weight loss
- Tiredness or constant fatigue
- Loss of appetite

The most common symptoms of lymphoma are a painless swelling in the neck, armpit or groin; together with chest pains and shortness of breath.

73% of patients with lymphoma did not know what lymphoma was until they were diagnosed. BE INFORMED. TALKTO YOUR DOCTOR.





Skin Cancer

Skin cancer is common especially in counties like Namibia, South Africa and Australia. Ultraviolet light exposure is the major cause. Those with outdoor occupations for example farmers, sportsmen and fishermen are more likely to develop skin cancer.

Redheads and fair skinned people are at greater risk, while Albinism is also associated with skin cancer. ALL people, irrespective of skin color/pigmentation, are at risk for skin cancer (as can be seen from Namibian statistics!).

The skin is the largest organ of the body and consists of three layers. The outer layer (or epidermis) and the basel layer (where growth of skin begins) are the most prone to cancer. The main types of skin cancer are basal cell carcinoma, squamous cell carcinoma and melanoma.

Basal cell carcinoma

Basal cell carcinoma hardly ever spreads. It occurs mainly during or after middle age, and is more common in men. Lesions present mainly on the forehead, eyelids, cheeks and nose, but may also occur behind the ear and on the torso. Rarely metastasizes, has low malignant potential. Diagnosed as a small, pearly nodule that enlarges slowly over time. It will cause local destruction of tissue if untreated and can be diagnosed with lithology. Treatment can be with surgery, laser treatment or freezing with liquid nitrogen.

Squamous cell carcinoma

Squamous cell carcinoma starts with damage to cells of the epidermis by ultraviolet rays. The first signs are an area of scaling followed by the development of a lesion or sore. Diagnosis is confirmed by a biopsy.

It occurs on exposed areas of the face, ears, cheeks and hands. Squamous cell carcinoma can spread to the regional lymph nodes and then to the rest of the body especially when the tumor is very big.

Melanoma

Malignant melanoma can originate from a mole or from the melanocytes which occur in the basal layer of the skin.

Melanoma accounts for 1% of deaths from all cancers and 90% of deaths from skin cancers. There are different types of melanoma. Melanoma can occur on the face, head, neck, soles of feet, near or under nails, hands, and legs and diagnosis is done with a biopsy.

Any pigmented lesion that has undergone a change in size, color or shape, has bled or causes any sensation to the patient, should be removed. The whole lesion must be removed with surgery. This cancer spreads to the nearby lymph nodes and can form metastasizes. When there are metastasizes, the prognosis is not very good. Cure is only achieved surgically at an early stage of the disease and patients must follow up for a very long time, as metastasizes may occur as late as 10-15 years afterwards. Education plays a big role in early detection in this form of cancer!

Typical warning signs of melanoma:

- Skin growth that increases in size, appears pearly, translucent, black or brown or moles that change in size, color, texture.
- An open sore that does not heal in 3 weeks or a spot that continues to itch, hurt, crust, scab, erode or bleed.

What to look out for

1

Normal Mole

A mole is a small brown spot or growth that appears in the first few decades of life. It can be flat or raised and generally is round.

2

Actinic Keratosis

The most common pre-cancer, it's small, crusty, bump. Colours vary. It can itch and bleed and can turn into squamous-cell carcinoma.

3

Dysplastic Nevi

These noncancerous moles resemble melanoma in colour variation within the blemish and sometimes in their unusual shapes and border irregularities.

4

Basal Cell

This is the most common skin cancer. This nonlethal blemish can be a shiny bump, a pink growth, a scar-like area or an open sore that doesn't heal easily.

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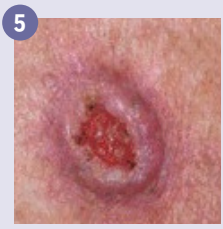


Squamous Cell

Persistent bleeding is common with this rarely deadly cancer. Warts, scaly patches, open sores and rapidly growing bumps are telltale signs.

6

Melanoma

This deadly cancer is usually larger than a pencil's eraser, multi-coloured and changes size and shape. Also look for asymmetry and uneven borders

Cancer in children
Tumors in children 0-15 years differ from tumors in adults. Leukemia is commonly diagnosed as a major type of cancer in children and is associated with blood cells. it is a disorder of the bone marrow when millions of abnormal blood cells are formed. Early symptoms may resemble the same symptoms of flu, but should not be neglected.

Warning signs include:
- Excessive tiredness & bruising
- Breathlessness
- Enlarged lymph glands or spleen
- Abnormal bleeding
- Slow healing of cuts
- Abdominal discomfort
- Weakness & fatigue
- Swollen and bleeding gums
- Blue and black marks for no reason
- Persistent infections
- Pain in bones and joints
- Paleness
- Persistent fevers
- Weight loss
- Small red spots under the skin
- Pathological fractures

Helpful tips for parents to note:
1) Seek medical help early for persistent symptoms mentioned above

2) Check the eyes:
- White spot/s in the eye/s
- New squint developing?
- Eye sight problems
- Sudden blindness?
- Bulging eyeballs

3) Check the body for lumps:
- Abdomen and pelvis
- Head and neck
- Testes (young boys)
- Glands must be examined

4) Take note of unexplained:
- Fevers
- Loss of weight and appetite
- Paleness & fatigue
- Easy bruising or bleeding

5) Complaints of above normal aching:
- Bones, joints and back
- Easy fractures

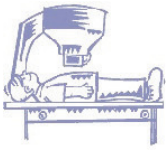
6) Note neurological signs:
- Changes in behavior, balance, gout
- Headache with or without vomiting
- Enlarging head
- Investigation vital

Cancer is not your fault. Sometimes people get sick for no reason at all. Cancer is not contagious, you can't catch it from another person. Cancer happens when a normal cell grows and divides too fast. You can only see cells with a microscope.

Think of cancer this way: If you fall off your bike and scrape your knee, your skin cells kick into gear and start growing to heal your scrape. When the scrape is all gone, the skin cells know they did their job, and they stop growing. But cancer cells don't know when to stop growing. Doctors use three different treatments to help the cells to stop growing:

SURGERY
Surgery cuts out cancer cells and removes them from the body, to stop them from growing

CHEMOTHERAPY
Chemotherapy delivers special medicine into cancer cells to stop them from growing



RADIATION
Radiation beams special energy into cells to stop their growth

There is no known cause for **childhood cancer** and they are **considered rare;** although worldwide over a quarter million kids are diagnosed annually.

The incidence of childhood cancers has increased **29% over the last 20 years.**

98% Of survivors suffer from a chronic health condition by the age of 45, including pulmonary, hearing, cardiac and other problems related either to their cancer or cancer treatment.

Overall, **childhood cancers** are the **#1 killer of kids,** taking more kids every year than Cystic Fibrosis, Muscular Dystrophy, Asthma and aids combined, and world wide early **100 000 kids die annually**.

Top 5 childhood cancers:

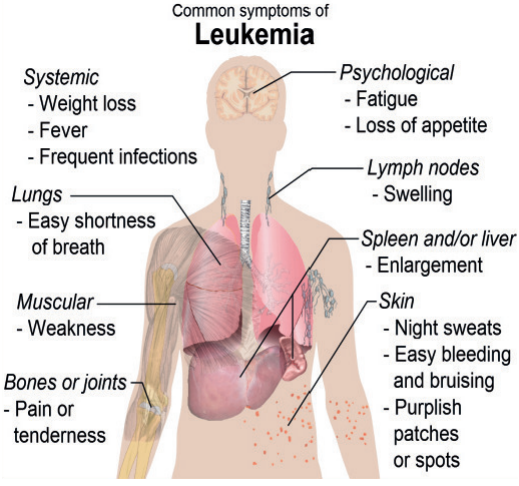
- Leukemia
- Retinoblastoma
- Nephroblastoma
- Brain tumors
- Lymphomas

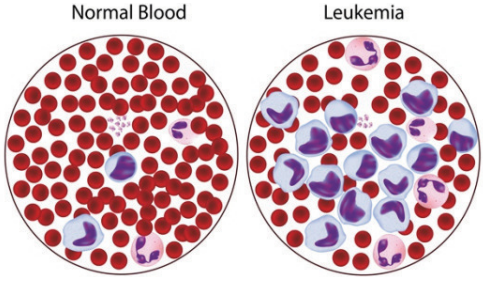
I NEVER GIVE UP

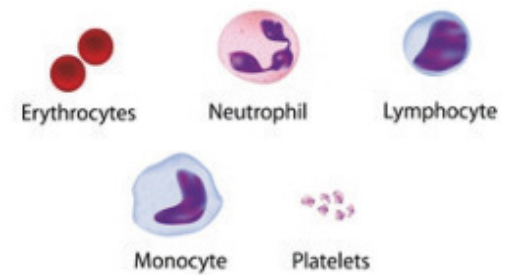
Leukaemia (Blood Cancer)
Leukaemia is a cancer that begins in the bone marrow and lymphatic systems where white blood cells are formed. This cancer causes a mutation in the blood cells, and these defective cells begin to multiply. These mutated cells cannot perform their job properly and result in a weakened immune system.

The exact biological mechanism that causes leukaemia is unknown, but scientists believe a combination of genetic and environmental factors play a role. Genetic mutations in the DNA of white blood cells allow these cells to grow and divide rapidly, and these cells survive long after healthy cells have died. This means that the number of mutated cells increases, crowding out healthy cells. Leukaemia also tends to run in families. This lends further credence to the theory that genes play a role. Exposure to radiation and chemicals such as benzene and those found in cigarettes can also increase the risk of developing Leukaemia.

Acute leukaemia is most common amongst children. There is no known cause but it is linked to genetic abnormalities and nuclear accidents, children with Down Syndrome, HIV and smoking.







Prostate Cancer

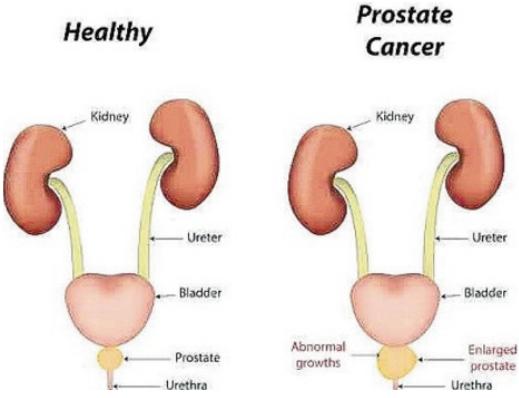
This is the most common cancer amongst men in Namibia. In the beginning there are no signs and symptoms but when the prostate gland enlarges the patient will experience symptoms.

There is no known cause, but risk factors are:

- High fat diet
- Overweight & obesity
- Smoking
- Older than 40 years
- Family history
- High alcohol intake

Signs and Symptoms:

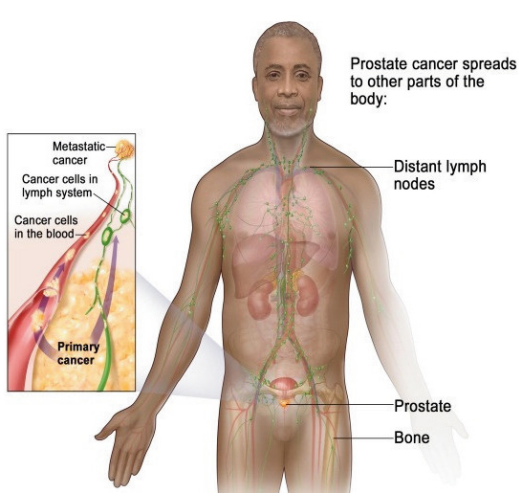
- Having problems starting or stopping urination.
- Urinary problems:
- Not able to urinate
- Needing to urinate often
- Weak flow of urine
- Pain/burning during urination
- Difficulty having an erection
- A feeling of heaviness in the scrotum
- Blood in the urine or semen
- Frequent pain in the lower back, hips or upper thighs

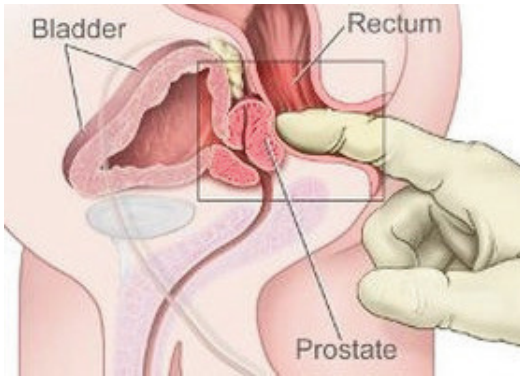


The prostate is part of a man's reproductive system. It is located in front of the rectum and under the bladder. It surrounds the urethra, the tube through which urine flows. A healthy prostate is about the size of a walnut.
The prostate makes part of the seminal fluid. During ejaculation, seminal fluid helps carry sperm out of the man's body as part of semen. Male hormones (androgens) make the prostate grow. The testicles are the main source of male hormones, including testosterone. The adrenal gland also makes testosterone, but in small amounts. If the prostate grows too large, it squeezes the urethra. This may slow or stop the flow of urine from the bladder to the penis.

Prevention of this cancer:

Have a yearly blood test and rectal examination from age 40. If there is prostate cancer in your father's family, start screening 10 years before the age onset in the affected relative.





Testicular Cancer

Testicular cancer is the most common cancer in males between 15 and 45 years. No real causes are known but boys who's testes have not descended into the scrotum, are at high risk.

Early detection plays a role in successful treatment. This is done by regular testicular self-examination, a procedure that all young men should learn. When doing testicular self-examination, you should be looking for changes in the size or consistency of the testicle. If you find anything abnormal for example a lump, you should check with your doctor.

Other symptoms:

- Unusual tenderness of the testicles
- Pain
- Enlargement of scrotum
- Feeling of heaviness of the scrotum
- A painless lump or swelling in a testicle
- A dull ache in the lower abdomen, back or groin
- A sudden collection of fluid in the scrotum

Self-examination should be done at least once a month during or after shower/bath!

Monthly Self-Exam

HOW TO PERFORM A MONTHLY SELF EXAM.

Always perform monthly self-exams and ask your doctor for a testicular exam at your annual appointment, or sports physical.

One.

Cup one testicle at a time using both hands.
This is best performed during or after a warm shower.

Two.

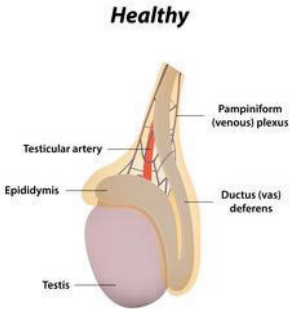
Examine by rolling the testicle between thumb and fingers.
Use slight pressure.

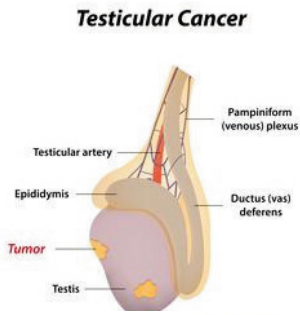
Three.

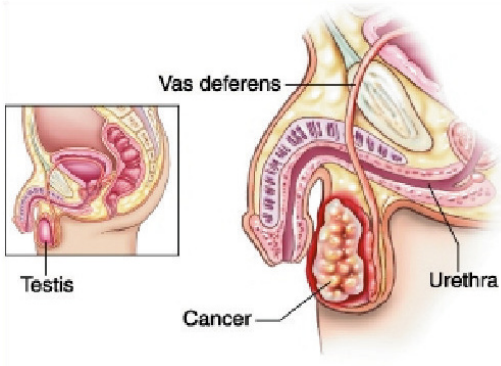
Familiarize yourself with the spermatic cord and epididymis.
The tube like structures connected on the back side of each testicle.

Four.

Feel for lumps, changes in size, or irregularities.
It is normal for one testis to be slightly larger than the other.







Know the facts about testicular cancer

- Lead cancer in men 15 - 45 years old
- Early detection is key

Risk factors

- Undescended testicles (cryptorchidism)
- Family history
- Personal history of testicular cancer
- Intratubular germ cell neoplasia

Signs & symptoms

- A painless lump, change in size or any irregularity
- Pain or discomfort in the scrotum or testicle
- A dull ache or sense of pressure in the lower abdomen, back or groin

Advanced signs

- Significant weight loss
- Back and/or abdominal pain
- Chest pain, coughing or difficulty breathing
- Headaches
- Enlarge lymph nodes in abdomen and/or neck

Breast Cancer

Breast cancer is the number 1 cancer amongst women in Namibia. Most women diagnosed with breast cancer, are older than 40 years. However, breast cancer can also occur in younger women.

Risk factors:

- Family history – in about 10% of breast cancers, the patients are older than 40 and have a family occurrence of cancer
- Early menstruation – before teens
- Late menopause – after the age of 50
- Long term hormone replacement therapy
- Never had children or first child born after 30 years

Lifestyle plays an important role in breast cancer:

- DO NOT follow a diet high in animal fat
- DO NOT smoke
- DO NOT be obese or overweight
- DO NOT be lazy – become physically active / exercise!

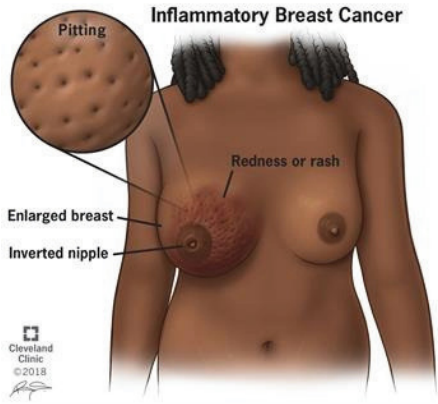
Early detection saves lives!
You can't prevent breast cancer, but if detected early, it can be treated successfully.

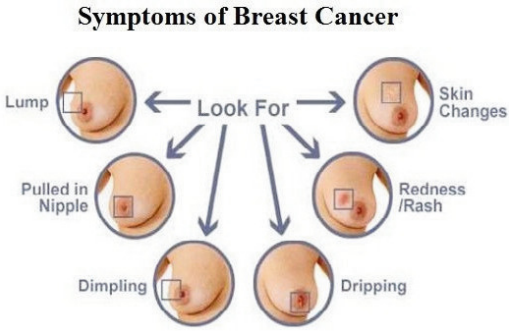
What can I do?

- Get to know your breasts, their shape size and feel.
- Do monthly breast self-examination (BSE).
- BSE is the way you can detect changes in your breasts.
- You can do it once a month, a week after your last menstruation day.
- Go for a clinical breast examination (CBE) once a year with your health care provider.
- Ladies older than 40 can also go for mammograms and ultrasound of the breast. It is important to go to your doctor or clinic.

Signs and Symptoms:

- Lump in the breast or armpit
- A swelling in the armpit
- An unusual increase in the size of breast
- Nipple retraction
- Nipple discharge – bloody/ brownish change in the skin around nipple
- One breast lower than the other – nipples at different levels
- Puckering of skin of breast (dimples/orange)
- Redness around nipple that itches or is scaly
- Remember your breasts change according to your menstruation period
- Some lumps can also be cysts – a lump filled with fluid – and are usually not cancer





For Monthly Breast Exams


In front of a mirror


In the shower


On the bed

In front of a mirror

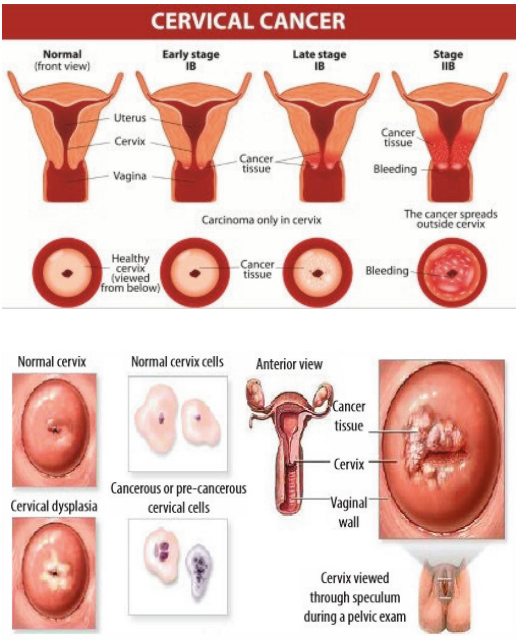
1. Inspect both breasts with your arms at your sides.
2. Raise your arms slowly, paying close attention to any swelling, or change in your breast or nipples.
3. Place hands on your hips, flex your chest muscles and again visually compare both breasts.

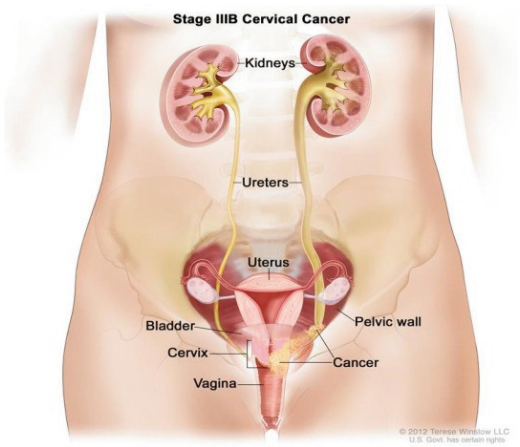
In the shower

4. Extend right arm upward and examine right breast.
5. Extend left arm upward and examine left breast.

On the bed

6. Lie down on a bed or floor on your back.
7. Insert your pillow under your right shoulder so that your right breast is flat.
8. Examine your right breast with right arm under head.
9. Insert your pillow under your left shoulder so that your left breast is flat.
10. Examine your left breast with left arm under head.





Cervical Cancer

Cervical cancer is the second most common cancer in women in Namibia. However, it is a cancer that can be detected and partially prevented!

Cervical cancer develops in the cervix, the neck of the uterus. The main cause of cervical cancer (90%) is the Human Papilloma Virus (HPV).

This virus is transmitted through sexual intercourse and intimate skin-to-skin contact. Infection rarely shows symptoms.

Risk factors include:

- If you start sexual activity at a young age
- If you or your partner have multiple diseases
- If you have a sexually transmitted disease
- Multiple pregnancies
- Smoking
- Overweight / Obese
- Weak immune system

What you can do:

If you are sexually active, have regular cervical examinations. Cervical cancer can be treated quickly, easily and successfully if diagnosed early. Cervical screening does not prevent infection, but the infection can be detected early.

Signs and Symptoms:

- Vaginal bleeding between periods.
- Menstrual bleeding that is longer or heavier than usual.
- Pain during sexual intercourse.
- Bleeding after sexual intercourse.
- Pelvic pain.
- A change in your vaginal discharge, such as watery discharge or a strong/foul smell.
- Vaginal bleeding after menopause

Preventative measures:

- Wear condoms correctly and consistently when having sexual intercourse, prevent HPV and other STI's.
- Take young girls between the ages of 9-14 years for HPV vaccination, preferably before they become sexually active.
- Delay exposure to HPV by delaying commencement of sexual intercourse.
- Encourage men to go for voluntary medical male circumcision.
- Seek regular screening for cervical cancer through

* Male circumcision reduces a man's risk of HPV and other STI's, which protects their female partners.

Early detection

Up to 90% of sexually-active women will acquire an HPV infection at some time in their lives. Up to 70% of these infections will be from cancer causing HPV types. HOWEVER, it is a cancer that can be detected and prevented. It can also be treated with great success if detected early.

You may be at risk, whatever your age

You are at risk of getting cervical cancer if you start sexual activity at a young age; if you or your partner have had multiple sexual partners; if you have a sexually transmitted disease; if you have had multiple pregnancies and if you smoke.

The potential of vaccination

The most effective means of addressing cervical cancer is prevention and vaccination against the most common cancer causing HPV types 16 and 18. It has been estimated that alongside regular screening, this could reduce the risk of developing cervical cancer by up to 94%, compared to no intervention.

When to vaccinate?

Girls and women over the age of 9 can be vaccinated.HPV vaccination is recommended before a first sexual encounter, however, nearly all women could benefit from vaccination, because a woman can be exposed to the virus at any point in her life. Even if a woman has already been exposed to HPV,prior infection does not reliably protect women against subsequent infections. Data show that as women age, cancer-

causing HPV infection is more likely to become persistent, and potentially lead to the development of pre-cancerous lesions and cervical cancer. What causes abnormal cervical cells? Most of the time, the abnormal cell changes are caused by certain types of human papillomavirus, or HPV. HPV is a sexually transmitted infection. Usually, in younger women these cell changes go away on their own. But certain types of HPV (especially HPV 16 & HPV 18) have been linked to a high risk of cervical cancer.

Do Pap smears test for HPV?

The main purpose of screening with the Pap test is to detect abnormal cells that may develop into cancer if left untreated and can also find cancer cells. HPV testing is used to look for the presence of high-risk HPV types in cervical cells. These tests can detect HPV infections that cause cell abnormalities, sometimes even before cell abnormalities are evident. A Pap smear and an HPV test are 2 different screening types. Cytology screening is commonly used to check for cellular irregularities, where as a liquid based screening is used for HPV identification.

What does it mean if you test positive for HPV?

If you have cervical human papillomavirus (HPV) infection and an abnormal Pap test result, your health care provider will explain what other tests you might need. If you have cervical HPV infection and a normal Pap test result, it means that you have genital HPV, but no cell changes were seen on your Pap test.

Can you test positive and then negative for HPV?

Yes. Our body naturally heals itself of HPV (medically HPV is known a transient virus). So no, you're not necessarily positive for life. If a woman's cervical screening and her high-risk HPV test are both negative, and she's in a monogamous sexual relationship, then she does not need to have a screening or HPV test every year. She can increase the interval of her screening 3-5 years. Should she have a high-risk positive indicating result and have multiple partners, or herself or partner have a polygamous relationship status, annual screening is advised.

Can I get a wrong / false HPV test?

The HPV test is designed to detect most of the worst strains, using the same cells scraped from the cervix as a Pap smear does, to signal who's at high or low risk. Neither test is perfect. Screening can miss cancer signs, which is why women are urged to get them between one to three years regularly.

Can HPV be detected if it is dormant?

Not always. This is because HPV may remain dormant ("hidden") in the cervical cells for months or even many years. While dormant, the virus is inactive; it won't be detected by testing and will not spread or cause any problems. However, the infection may then "re-emerge," perhaps due to changes in the body's immune system. It is therefore important to have regular screening (1 – 3 yearly intervals maximum if at risk).

What is high risk human papillomavirus?

High risk HPV causes several types of cancer. Cervical cancer: Virtually all cases of cervical cancer are caused by HPV, and just two HPV types, 16 and 18, are responsible for about 70% of all cases. Anal cancer: About 95% of anal cancers are caused by HPV. Most of these are caused by HPV type 16.

Can HPV be cured?

Unfortunately, once you have been infected with HPV, there is no treatment that can cure it or eliminate the virus from your system, though the body can often heal itself from HPV.

How long does it take for HPV to show up on a test?
Some types of HPV cause cell changes to the cervix that can cause an abnormal Pap test. When symptoms do develop, they usually occur 2 to 3 months after infection. But symptoms have been known to occur from 3 weeks to many years after infection.

Is HPV for life?
Most HPV infections in young men and women are transient, lasting no more than one or two years. Usually, the body clears the infection on its own. It is estimated that the infection will persist in only about 1% of women. It is those infections that persist which may lead to cancer.

Can ovarian cancer be caused by HPV?
HPV infections that do not go away increase the risk of getting several types of gynecologic cancer. HPV is a common sexually transmitted virus that can cause cervical, vaginal, and vulvar cancers. It is one of the most well-established risk factors for these three cancers.

How can I prevent getting HPV?
Get vaccinated for HPV prior to sexual activity and get tested to see if you are HPV negative. If negative, get vaccinated. If positive, go for follow-up and HPV treatment (screen-and-treat options might also be considered). There are two common vaccines (Cervarix and Gardasil) used to optimally protect females against the types of HPV that cause most cervical cancers. Gardasil also protects against most genital warts. It's best to be vaccinated before becoming sexually active.

How can I prevent spreading HPV to my partner?
You can get HPV by having sex with someone who is infected with it. This disease is spread easily during anal or vaginal sex, and it can also be spread through oral sex or other close skin-to-skin touching during sex. HPV can be spread even when an infected person has no visible signs or symptoms.

What steps should I follow now that I have all this information?
The Cancer Association of Namibia advises all sexually active women to have a "cervical screening" by visual inspection (known as VIA).Your health care practitioner will do a pelvic examination, and similar to a Pap smear, conduct a procedure whereby the cells of the cervix will be carefully looked at. Should irregular cells be noted, cryotherapy may be used to quickly treat the cells, or a further procedure with colposcopy will be conducted. Your medical officer will then guide you on the next steps, should there be any.

CAN recommends that young girls and boys (with parental consent) of ages 9 – 12 be vaccinated for HPV. We highly recommend parents to have an open dialogue with their children on sexual reproductive health, as education is key to saving lives!

HIV+ ladies stand a greater risk of developing cervical cancer, and we request patients to build a trusting relationship with your health care provider and do annual VIA screening to ensure your health is a priority.

Ladies who are HIV- and HPV- have the lowest risk of developing cervical cancer, but should be screened at least every 3-5 years to eliminate any possible threats. Women over the age of 60 will be privately assessed and advised by the health officer, and a medical check-up plan should be managed by the patient. Knowing your HIV and HPV status, understanding your body and educating yourself with the facts are key to fighting cervical cancer!

Lung cancer

This is one of the cancer types with the highest fatality rates amongst both men and women. The main cause of lung cancer is tobacco use: cigarettes, cigars and pipe, while hubbly bubbly and second hand smoke exposure increases risk as well. Other risks: asbestos and certain lung diseases such as tuberculosis.

Signs & symptoms:

- A cough that doesn't go away and becomes worse or coughing up blood.
- Constant chest pain or shortness of breath and wheezing.
- Repeated bronchitis or pneumonia.
- Swelling of neck and face.
- Loss of appetite and weight loss or fatigue.

Diagnosis is made with X-Rays and biopsy with a bronchoscopy.

Effects of smoking

- Smoking raises blood pressure, which can cause hypertension (high blood pressure) - a risk factor for heart attacks and strokes.
- Couples who smoke are more likely to have fertility problems than couples who are non-smokers.
- Smoking worsens asthma and counteracts asthma medication by worsening the inflammation of the airways.
- The blood vessels in the eye are sensitive and can be easily damaged by smoke, causing a bloodshot appearance and itchiness.
- Heavy smokers are twice as likely to get muscular degeneration resulting in the gradual loss of eyesight and an increased risk of cataracts.
- Smokers take 25% more sick day leave per year than non-smokers.
- Smoking stains your teeth and gums.
- Smoking increases your risk of periodontal disease, which causes swollen gums, bad breath and teeth falling out.
- Smoking causes an acid taste in the mouth and contributes to the development of ulcers.
- Smoking also effects your looks: smokers have paler skin and more wrinkles. Reason being: smoking reduces the blood supply to the skin and lowers levels of vitamin A.

60 000 passive smokers are killed every year

The link between smoking and lung cancer is clear.

- 90% of lung cancer cases are due to smoking
- If no-one smoked, lung cancer world wide would be a rare diagnosis - only 0.5% of people who never touched a cigarette develop lung cancer.
- One in ten moderate smokers and almost one in five heavy smokers (more than 15 cigarettes a day) will die of lung cancer.
- If you smoke, the risk of contracting mouth cancer is four times higher than a for a non-smoker. Cancer can start in many areas of the mouth, with the most common being on or underneath the tongue, or on the lips.

Why you must stop smoking

- Every cigarette will approximately reduce your life span by 10 minutes!
- There are approximately 4000 chemicals in cigarettes, hundreds of which are toxic. Nicotine is a chemical compound that is present in tobacco and is a stimulant to which you get addicted to. The ingredients in cigarettes affects everything from the internal functioning of organs to the efficiency of the body's immune system.
- Most people know that smoking can cause lung cancer, but it can also cause many other cancers and illnesses. The effects of smoking on human health are serious and in many cases deadly.
- The effects of smoking are destructive and widespread.

Stop smoking for the sake of your health and that of your family and friends!

Skin cancer

Self examination tips:

CAN recommends that everyone practice monthly head-to-toe self examination of their skin, so that they can find any new or changing lesions that might be cancerous or pre-cancerous. Skin cancers found and removed early are almost always curable. If you spot anything suspicious, see a doctor.

Examine your face, especially the nose, lips, mouth and ears - front and back. Use one or two mirrors to get a clear view

Thoroughly inspect your scalp, using a blow dryer and mirror to expose each section to view. Get a friend or family member to help, if you can.

Check your hands carefully: palms and backs, between the fingers and under the fingernails. Continue up the wrist to examine both front and back of your forearms.

Standing in front of a full-length mirror, begin at the elbows and scan all sides of your upper arms. Don't forget the underarms. Next, focus on your back, chest and torso. Women should lift breast to view underside.

With your back to the full-length mirror, use the hand mirror to inspect the back of your neck, shoulders, upper back and any part of the back of your upper arms.Still using both mirror, scan your lower back, buttocks and back of both hind legs.

Sit down; prop each leg in turn on the other stool or chair. Use the hand mirror to examine the genitals. Check front and sides of both legs, thigh to shin, ankles, tops of feet, between toes and under toenails. Examine soles of feet end heels.

Sun smart checklist

Use sun protection cream

SPF 30 or more. Sun block should be applied 20 minutes before you actually go outside and should be reapplied every 2 hours. Make sure to cover all skin that's going to be exposed to the sun.

Seek shade

Avoiding the sun when it is strongest may seem an obvious tip, but it's one that pay's off. The sun is usually strongest when it is highest between 10am to 4pm.

Cover up

Loose light layers of clothing will protect you from the sun whilst still keeping them cool - clothes create a direct barrier between the suns rays and your skin. Broad - rimmed hats are a very good way to protect your face, neck and ears from sun damage.

Wear sunglasses

Get in the habit of wearing sunglasses. It has been estimated that 3.2 million people worldwide may be blind due to UV radiation exposure. Sunglasses protect your eyes from sun damage. However, you need to be sure that your sunglasses are blocking UV rays.

Check the uv index

If you have access to the internet, checking the UV index http://www.uvawareness.com is a quick and easy way to see how high UV levels will be on a particular day. If the levels are moderate or above, you'll need to take extra precaution to protect you from sun damage.

What is Palliative and Hospice Care?

What is Palliative Care?
Palliative care is specialised medical care focused on providing relief from the symptoms, pain, and stress of serious illnesses such as cancer. Unlike treatments aimed at curing a disease, palliative care is designed to improve the quality of life for patients and their families, regardless of the stage of the illness or the need for other therapies.

Key Elements of Palliative Care:
Symptom Management: Palliative care addresses physical symptoms such as pain, fatigue, nausea, shortness of breath, and difficulty sleeping, helping patients feel more comfortable and improving their day-to-day well-being.

Psychosocial Support: It provides emotional and psychological support, recognising that serious illness impacts both the mental and emotional health of patients and their families. Trained professionals, including counsellors and social workers, offer guidance and support.

Support for Families: Palliative care extends to caregivers and family members, offering resources and counselling to help them manage stress, communicate with healthcare teams, and make difficult decisions about care.

Coordination with Other Treatments: This care works alongside curative treatments if needed, and it is provided by a team that may include doctors, nurses, social workers and chaplains. The team collaborates with other specialists to ensure a holistic approach to the patient's care.

End-of-Life Care: For terminally ill patients, palliative care can transition to hospice care, which focuses on comfort and support during the final stages of life.

Palliative care focuses on dignity, comfort and emotional support, aiming to improve the quality of life for people facing serious illnesses.

What is Hospice Care?
A type of compassionate care designed for people in the final stages of a terminal illness. Its primary focus is on providing comfort, dignity and support to patients whose illnesses are no longer responding to curative treatment. Hospice care prioritises the quality of life over the length of life and involves managing symptoms, providing emotional and spiritual support, and offering resources for families and caregivers.

Key Aspects of Hospice Care:
Comfort-Focused Care: Hospice care emphasises relief from pain, symptoms and stress. The goal is to make the patient as comfortable as possible rather than attempting to cure or slow the progression of the illness.

Holistic Support: Hospice care includes physical, emotional, social and spiritual support. This might include pain management, help with daily activities, counselling, and guidance from a chaplain or spiritual counsellor if desired.

Family Involvement and Support: Hospice care extends to families and caregivers, offering counselling, bereavement support, and respite care. It helps family members and loved ones understand the care process and to cope with the emotional challenges of losing a loved one.

Interdisciplinary Team Approach: A team of healthcare professionals—typically including doctors, nurses, social workers and chaplains—works together to create a personalised care plan. This team supports both the patient and family, addressing all aspects of well-being.

Location Flexibility: Hospice care can be provided in various settings, such as the patient's home, a specialised hospice facility, nursing home, or hospital, depending on the needs and preferences of the patient and family.

End-of-Life Focus: Hospice care is intended for those who are in the final phase of life, usually when a physician has determined that the patient has six months or less to live. However, patients can remain in hospice care beyond six months if the illness progresses slowly.

Hospice care respects the wishes and dignity of the patient, focusing on comfort and support rather than curative interventions. It is intended to provide a peaceful and supportive environment for patients and their families during this sensitive time.

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