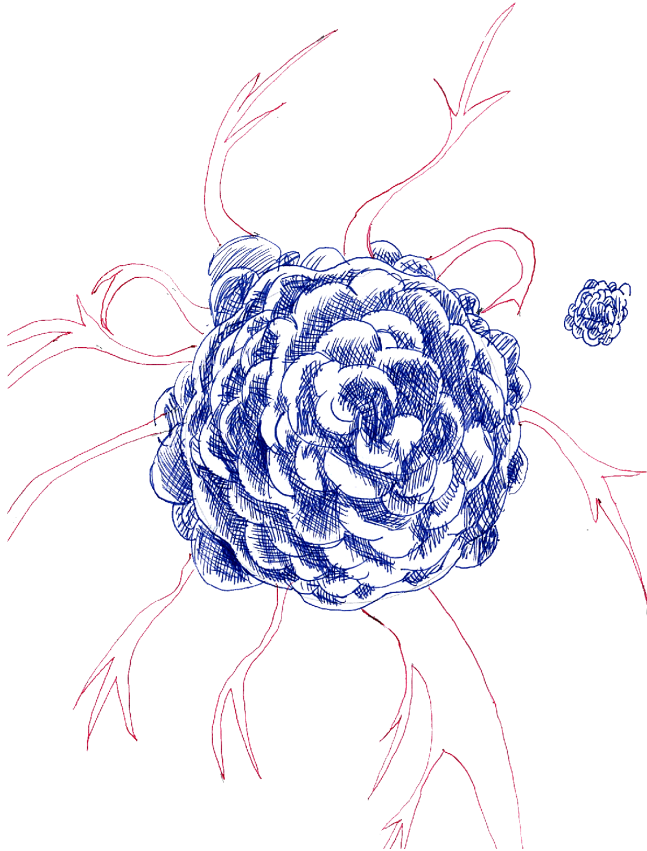


SUNWAY
MEDICAL CENTRE



CANCER...
THE REALITY

THE BIG C

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What It's About

- Our cells are the building blocks of our body. When the growth process of the cells goes wrong, it forms a mass called a tumour. A malignant tumour is cancer.
- There are more than a hundred types of cancer, and the symptoms vary depending on the type.
- In Malaysia, it is considered the most lethal killer disease among all, with several types of cancers being the contributors to the high mortality rate each year.

TOP 10 CANCER CASES IN MALAYSIA REPORTED BY NATIONAL CANCER REGISTRY (NCR) MALAYSIA IN 2007-2011



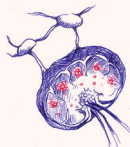
01. BREAST
CANCER



02. COLORECTAL
CANCER



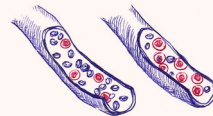
03. LUNG
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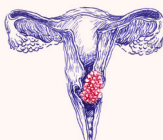
04. LYMPHOMA
CANCER



05. NASOPHARYNGEAL
CANCER



06. LEUKAEMIA
CANCER



07. CERVICAL
CANCER



08. LIVER
CANCER

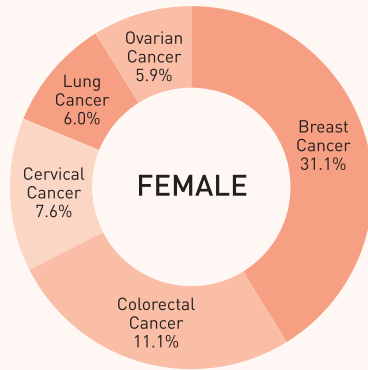
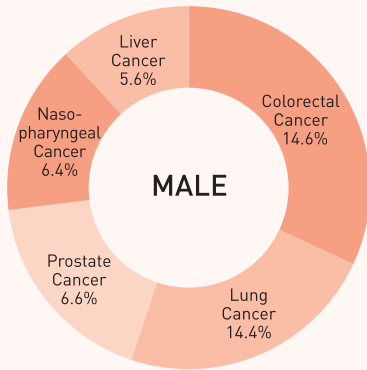


09. OVARIAN
CANCER



10. PROSTATE
CANCER

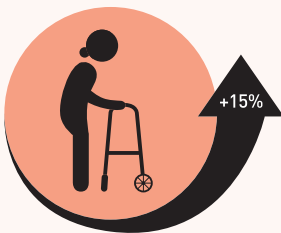
TOP 5 COMMON CANCERS BY SEX, NCR MALAYSIA 2007-2011



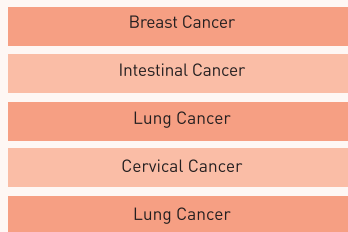
- About 100,000 Malaysians suffer from cancer each year, with the most being women.



- One in four Malaysians will suffer from cancer by the age of 75 years.

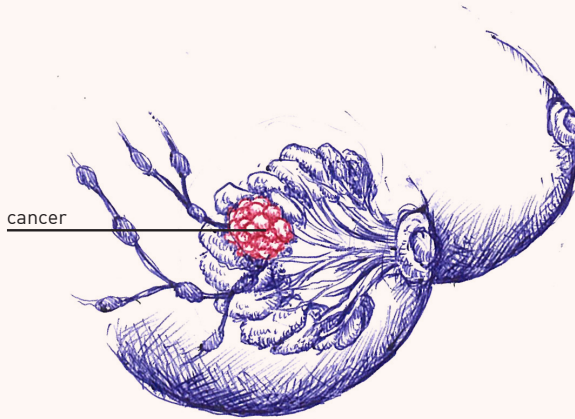


- By 2020, there will be an increase of 15 per cent in the number of cancer cases, and this comprises senior citizens.



- Five main cancers which affected Malaysians were breast cancer, intestinal cancer, lung cancer, cervical cancer, and lung cancer.

The Reality of Breast Cancer



Breast cancer is an uncontrolled growth of breast cells. The term “breast cancer” refers to a malignant tumour that has developed from cells in the breast.

REALITY CHECK

It is the most common type of cancer among women in Malaysia. An average of 4,000 new cases are reported each year, where 1 in 9 Malaysian women are diagnosed with breast cancer.

ABOUT THE BREAST

A woman's breast is made of fatty tissues that could produce milk. There are 15 to 20 sections within the breast called lobes. Each lobe has smaller structures within them called lobules. This is where the milk is produced and travels through a network of tiny tubes called ducts. The amount of fat determines the size of the breast. The breast also contains connective tissues, ligaments, blood vessels, lymph vessels and lymph nodes.

Common Types of Breast Cancer

DUCTAL CARCINOMA IN SITU (DCIS)

Also known as intraductal carcinoma, it is a non-invasive breast cancer. Some cells in the lining of the ducts of the breast tissue have started to turn into cancer cells. As they are contained inside the ducts, they have yet to spread to the surrounding breast tissue.

LOBULAR CARCINOMA IN SITU (LCIS)

Also called lobular neoplasia, this condition is not a form of cancer, but abnormal cells found within the inner lining breast lobules which are glands that produce milk when breastfeeding. The abnormal cells are all contained within the inner lining of the breast lobules. However, it can increase the risk of getting breast cancer.

INVASIVE (OR INFILTRATING) DUCTAL CARCINOMA (IDC)

One of the most common types of breast cancer, IDC begins in the milk duct of the breast, eventually penetrates the wall of the duct, and develops in the fatty tissue of the breast.

INVASIVE (OR INFILTRATING) LOBULAR CARCINOMA (ILC)

ILC begins in the lobules, the milk-producing glands and it may spread to other parts of the body.



Staging and Grading

Once you have been diagnosed positive for cancer after a biopsy test, the condition will be given a stage and grade. This vital information will help you and your healthcare team to choose the best treatment for you. The cancer stage will describe the size of the tumour and how far it has spread.

There are 5 stages for breast cancer:



- Non-invasive breast cancers, such as DCIS (ductal carcinoma in situ).
- No evidence of cancer cells or non-cancerous abnormal cells breaking out from the original site in the breast, or getting through to surrounding normal tissues.



- Tumour measures up to 2cm.
- The cancer has not spread outside the breast; no lymph nodes are involved.



- Tumour measures between 2 to 5cm.
- The cancer has spread to the lymph nodes under the arm on the same side as the breast cancer.



- The tumour in the breast is more than two inches in diameter across.
- The cancer is extensive in the underarm lymph nodes, or has spread to other lymph nodes or tissues near the breast.



- Invasive breast cancer has spread beyond the breast and nearby lymph nodes to other organs of the body.
- "Advanced" and "Metastatic" are used to describe stage IV breast cancer.

There are 3 grades of invasive breast cancer:

- Grade 1 (well differentiated)** – The cancer cells look most like normal cells and are usually slow-growing.
- Grade 2 (moderately differentiated)** – The cancer cells look less like normal cells and are growing faster.
- Grade 3 (poorly differentiated)** – The cancer cells look most changed and are usually fast-growing.



WARNING SIGNS

Signs and symptoms:

- Swelling of all or part of the breast
- Skin irritation or dimpling
- Breast pain
- Nipple pain or the nipple turning inward
- Redness, scaliness, or thickening of the nipple or breast skin
- A nipple discharge other than breast milk
- A lump in the underarm area



AM I AT RISK?

Yes, if you fit the following:

- Consume unhealthy food uncontrollably
- Smoking
- Drinking alcohol
- Being overweight
- Never breastfed
- Had no children

There are risk factors that can't be changed:

- Being a woman
- Getting older
- Inherited cancerous genes
- Family history of breast cancer
- Race and ethnicity
- Breast tissues that are dense



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

- Add healthy choices to your diet
- Exercise
- Avoid exposure to toxins
- Quit smoking habit
- Limit drinking alcoholic drinks



I have a higher risk of getting breast cancer. Can it still be prevented?

There is no definite way to avoid breast cancer, but you can take preventive measures to further lower the risk:

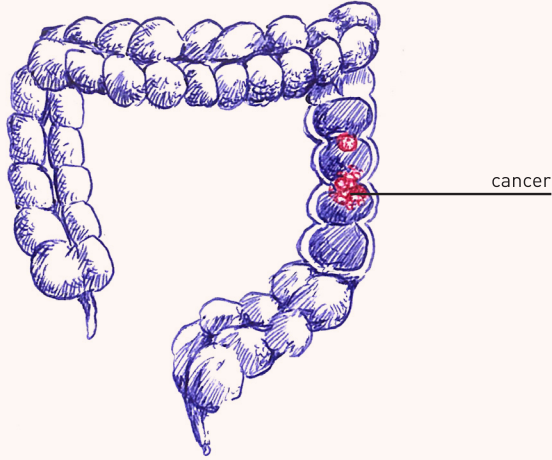
- Medication to reduce cancer risk
- Preventive surgery

BREAST CANCER MYTHS VS FACTS

Myth	Fact
<p>Antiperspirant chemicals are absorbed through the skin, block the release of toxins when you sweat, and cause these toxins to build up in the breast.</p>	<p>Even the strongest antiperspirant doesn't block all perspiration in the armpit. Most cancer-causing substances are removed by the kidneys and released through urine or processed by the liver.</p>
<p>Underwire bras cause breast cancer by blocking the drainage of lymph fluid from the bottom of the breast so it can't get back into your body.</p>	<p>Underwire bras do not cause breast cancer. There is no scientific evidence to support either of these rumours.</p>

Source: www.breastcancer.org, American Cancer Society

The Reality of Colorectal Cancer



**It is a type of cancer that forms in the colon or the rectum.
As both have many features in common, they are often
grouped together as colorectal cancer.**

REALITY CHECK

This is the second most common type of cancer in the country. It has been reported that close to 3,000 Malaysians are affected each year and the chances of its risk increases with age.

ABOUT THE COLON AND RECTUM

The colon is also called the large intestine. It is also an organ that is part of the digestive system. Its walls are lined with muscles that squeeze its contents along, removing water, salt, and some nutrients and waste that form the stool. The rectum is the final part of the large intestine that ends in the anus.

Common Types of Colorectal Cancer

COLORECTAL ADENOCARCINOMA

It is a cancer that grows in epithelial cells that line the colon or rectum, which make up the large intestine. It usually begins in the inner lining and eventually spread to other layers. Adenocarcinoma covers 95% of colorectal cancer cases.

GASTROINTESTINAL CARCINOID TUMOUR

Carcinoid tumour cells are slow-growing cancer that develops in neuroendocrine cells, which help regulate hormone production. These are called neuroendocrine tumours (NETs). They account for 1% of all colorectal cancers.

METASTATIC COLORECTAL CANCER

Cancer cells sometimes spread from a tumour in the colon or rectum to other parts of the body. These cells travel through the bloodstream or lymphatic system and settle to form new tumours on a different organ. Although the tumour may develop at a new organ, it is still named after its origin, thus the term metastatic colorectal cancer.



Staging and Grading

Once you have been diagnosed positive for cancer after a biopsy test, the condition will be given a stage and grade. This vital information will help you and your healthcare team to choose the best treatment for you. The cancer stage will describe the size of the tumour and how far it has spread.

There are 5 stages for colorectal cancer:



- Also known as carcinoma in situ or intramucosal carcinoma, this is the earliest stage of colorectal cancer.
- In stage 0, the cancer has not grown beyond the inner layer of the colon or rectum.
- The cancer has grown through the muscularis mucosa and into the submucosa, or it may also have grown into the muscularis propria.
- The cancer has not spread to nearby lymph nodes or distant sites.
- The cancer has grown through most of the layers of the colon or rectum, and may have grown into nearby organs or tissues.
- The cancer has not spread to the lymph nodes or distant organs.
- The cancers have spread to nearby lymph nodes, but they have not yet spread to other parts of the body.
- The cancers have spread to distant organs and tissues.
- Most often it spreads to the liver, but it can also spread to other places such as the lungs, brain, peritoneum (the lining of the abdominal cavity), or to distant lymph nodes.

There are 4 grades of colorectal cancer:

- Grade 1** - The cancer looks much like the normal colorectal tissue.
- Grade 2 and 3** - The cancer looks somewhere in between normal and abnormal.
- Grade 4** - The cancer appears very abnormal.



WARNING SIGNS

Signs and symptoms:

- An ongoing change in bowel movements, such as diarrhoea, constipation, or narrowing of the stool
- A feeling that the bowel movement was not relieved completely
- Rectal bleeding
- Blood in the stool, either bright red or very dark
- Frequent abdominal cramps, gas pains and bloating
- Weakness and fatigue
- Unknown reason for sudden loss of weight



AM I AT RISK?

Yes, if you fit the following:

- Overweight and not physically active
- Adopting the wrong diet
- Smoking
- Heavy alcohol user

There are risk factors that can't be changed:

- Being older
- A personal history of colorectal polyps or colorectal cancer
- A personal history of inflammatory bowel disease
- A family history of colorectal cancer or adenomatous polyps
- Inherited syndrome
- Racial and ethnic background
- Having type 2 diabetes



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

- Maintain a balanced body weight
- Practicing a healthy diet
- Increase physical activity
- Do not smoke



I have a higher risk of getting colorectal cancer. Can it still be prevented?

Take preventive measures to further lower the risk:

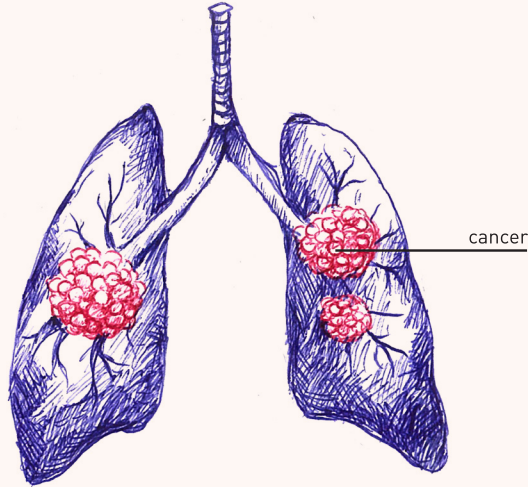
- Genetic testing should be done early if you have a family history of colorectal polyps or cancer.

COLORECTAL CANCER MYTHS VS FACTS

Myth	Fact
<p>You don't need to be screened for colorectal cancer if you have regular bowel movements and are feeling fine.</p>	<p>Colorectal cancer is a silent killer, as the symptoms may only be obvious during the advanced stage of the cancer where chances for cure are much lower.</p>
<p>You don't need to get screened for colorectal cancer if there is no family history of colorectal cancer.</p>	<p>Only 10 to 20 percent of those diagnosed with colorectal cancer has a family history with colorectal cancer. It is possible to get colorectal cancer even if there is no relative who ever had it.</p>
<p>Once you are diagnosed with colorectal cancer, it is too late to do anything about it.</p>	<p>Colorectal cancer is a preventable and highly treatable cancer if detected early. Those who are diagnosed at an early stage have over 90 percent chance of curing and surviving this cancer.</p>

Source: NCR 2007-2011, American Cancer Society, ASGE

The Reality of Lung Cancer



Lung cancer happens when a malignant tumour forms in the tissue of one or both lungs. A primary lung cancer begins in the lung, while a secondary or metastatic cancer occurs elsewhere in the body and spreads to the lungs.

REALITY CHECK

In 2014, cancer of the trachea, bronchus and lung accounted for 24.6 percent (1 in 4) of all cancer-related mortality in males in the country, while in females, it accounted for 13 percent of all cancer deaths, one of the more common reasons for cancer deaths after breast cancer.

ABOUT THE LUNGS

Our lungs are a part of the respiratory system made up of spongy, air-filled organs and tissues to help us breathe. The main function of the respiratory system is to extract oxygen from the atmosphere and transfer it into the bloodstream, and to release carbon dioxide from the bloodstream into the atmosphere. This process of gas exchange is essential for life.

Common Types of Lung Cancer

NON-SMALL CELL LUNG CANCER (NSCLC)

About 80 to 85 percent of lung cancers are Non-Small Cell Lung Cancer (NSCLC), making it the most common type of lung cancer. The two main subtypes of NSCLC are squamous cell carcinoma and adenocarcinoma.

SMALL CELL LUNG CANCER (SCLC)

Small Cell Lung Cancer is sometimes called oat cell cancer, and accounts for approximately 10 to 15 percent of all lung cancer cases. SCLC is a subtype of lung cancer called neuroendocrine tumours (NET).

LUNG CARCINOID TUMOUR

Besides SCLC, other NETS of the lung are carcinoid tumours (typical and atypical carcinoids) and large cell carcinoma. These tumours are quite rare and can be difficult to diagnose.



Staging and Grading

If you or a loved one has unfortunately been diagnosed with lung cancer from a biopsy test, the next important step is to determine the stage and grade of the tumour. A number of tests (eg. CT scan, whole-body PET scan, bronchoscopy, MRI brain scan +/- bone scan) may be required to accurately establish the stage of the cancer. Stage refers to the size of the tumour and extent of spread. This will determine what is the best treatment for you.

There are 4 stages for lung cancer based on a complex TNM staging system that is used worldwide:



- The 'T' refers to the size and location of the tumour.
- The 'N' refers to whether surrounding lymph nodes are involved by the cancer cells.
- The 'M' descriptor refers to whether the cancer has spread outside the affected lung or chest cavity to a distant location (eg. brain or bone) by a process known as metastasis.

Early stage lung cancer (stages 1A, 1B, 2A, 2B and some cases of stage 3A) are best treated by surgery. This offers the best chance of a cure and future long term survival, provided the patient is fit enough for an operation. More advanced stages (stages 3B, 3C and 4A and 4B) are usually best treated with chemotherapy and/or radiotherapy/immunotherapy.

In some patient successful treatment will require a combination of surgery and chemo/radiotherapy. This is called multi modality therapy.



WARNING SIGNS

- Persistent coughing or a “smoker’s cough”
- Coughing up blood or dark coloured phlegm/sputum
- Noisy breathing or breathing difficulty (stridor)
- Unexplained breathlessness
- Hoarseness
- Recurring chest infections such as bronchitis or pneumonia
- Fatigue, loss of appetite and unexplained weight loss
- Pain in the chest, shoulder or back



AM I AT RISK?

Yes, if you fit the following:

- Tobacco smoke
- Exposure to cancer-causing agents at the workplace (radioactive substances, chemicals, diesel)
- Arsenic in drinking water

There are risk factors that can't be changed:

- Previous radiation therapy to the lungs
- Air pollution
- Personal or family history of lung cancer
- Gender and ethnicity



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

- Avoid tobacco
- Limit exposure to second hand ‘passive’ smoking
- Limit exposure to cancer-causing chemicals or radiation
- Consume a healthy diet
- Exercise



I have a higher risk of getting lung cancer, can it still be prevented?

Take preventive measures to further lower the risk:

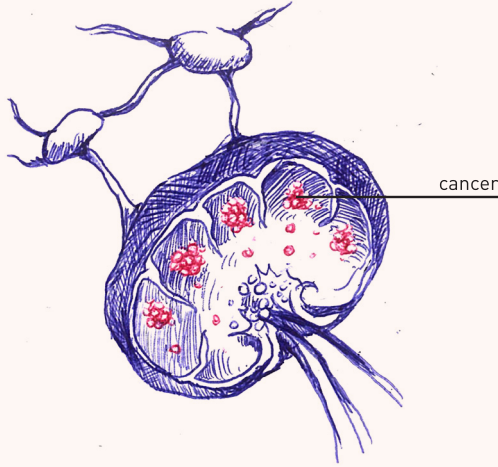
- Changing lifestyle (ie. quit smoking) or eating habits.
- See a doctor to discuss screening with a low-dose CT scan – to detect the cancer at a very early stage. This offers the best hope for high risk individuals.

LUNG CANCER MYTHS VS FACTS

Myth	Fact
Only smokers get lung cancer.	The fact is the majority of people that develop lung cancer are ex-smokers. 20 percent of women with lung cancer are lifelong non-smokers.
Living in a polluted city is a greater risk than smoking.	The risk of lung cancer does increase with exposure to diesel exhaust and air pollution, however, the risk is small in comparison to smoking.
Surgery causes lung cancer to spread.	There has been a surprisingly common belief, that if a lung cancer is exposed to air it will spread, making surgery procedure dangerous. Surgery does not cause lung cancer to spread, and if carried out in the early stages of lung cancer, it can offer a chance to cure the disease.

Source: NCR 2007-2011, American Cancer Society, National Cancer Institute, Lungcancer.org, Lungevity, The Medical Journal of Malaysia Vol. 71

The Reality of Lymphoma Cancer



Lymphoma is a type of cancer that begins in the lymphocytes, the infection-fighting cells in the immune system. There are two types of lymphoma called Hodgkin's or non-Hodgkin's.

REALITY CHECK

There were 776 cases of lymphoma diagnosed in 2007 and registered at the Malaysian National Cancer Report, comprising 448 males and 328 females. The incidence of lymphoma was slightly higher among males compared to females. The Chinese were found to have higher incidence rate compared to Malays and Indians.

Common Types of Lymphoma Cancer

HODGKIN'S LYMPHOMA

In Hodgkin's lymphoma, a particular type of lymphocyte called B-lymphocytes begin to abnormally multiply and cluster in some parts of the lymphatic system. These infected lymphocytes lose their ability to fight infections, thus weakening the immune system and leaving you vulnerable to infections. Hodgkin's lymphoma could often be diagnosed before it reaches an advanced stage as it progresses step by step. They are more likely to arise in the neck, underarms, or chest. If in examining the cells, the doctor detects the presence of a specific type of abnormal cell called 'Reed-Sternberg cell', the lymphoma is classified as Hodgkin's.

NON-HODGKIN'S LYMPHOMA

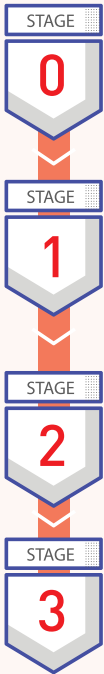
Non-Hodgkin's lymphoma is more common than Hodgkin's lymphoma. It can arise in lymph nodes throughout the body and often only detected at the advanced stage. The cancer cells are examined under a microscope, and if the 'Reed-Sternberg cell' is not present, the lymphoma is classified as non-Hodgkin's.



Staging and Grading

Once you have been diagnosed positive for cancer after a biopsy test, the condition will be given a stage and grade. This vital information will help you and your healthcare team to choose the best treatment for you. The cancer stage will describe the size of the tumour and how far it has spread.

There are 4 stages for lymphoma cancer:



- The cancer cells are in one lymph node group such as in the neck or underarm.
- If the abnormal cells are not in the lymph nodes, they are in only one part of a tissue or organ.

- The cancer cells are in at least two lymph node groups, on the same side of the diaphragm.
- Or, the cells are in one part of a tissue or an organ and the lymph nodes near that organ on the same side of the diaphragm.
- Cancer cells may be in other lymph node groups on the same side of the diaphragm.

- The cancer cells are in lymph nodes on both sides of the diaphragm.
- Cancer cells may also be found in one part of a tissue or an organ near these lymph node groups.

- The cancer cells are found in lymph nodes and several parts of one or more organs or tissues.
- Or, it has spread to the liver, blood, or bone marrow.

There are 4 grades of lymphoma cancer:

- Grade 1** - The cells look normal and tend to be slow growing.
- Grade 2** - Most intermediate lymphoma's are treated as aggressive even though they grow less rapidly. Some of these types are curable.
- Grade 3 and 4** - These cells grow very rapidly and require a more aggressive therapy approach.



WARNING SIGNS

- Swollen lymph nodes
- Night sweat
- Fatigue
- Unexplained weight loss
- Itching and rashes
- Fever
- Infections that are difficult to shake off



AM I AT RISK?

Yes, even more so with these factors:

- Contracted certain infections
- Previously undergone treatment for cancer
- Lifestyle, eating habits, smoking and drinking
- Exposure to certain chemicals or radiation

There are risk factors that can't be changed:

- Immune system complications
- Air pollution
- Personal or family history of lung cancer or lymphoma
- Gender and ethnicity
- Aging older



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

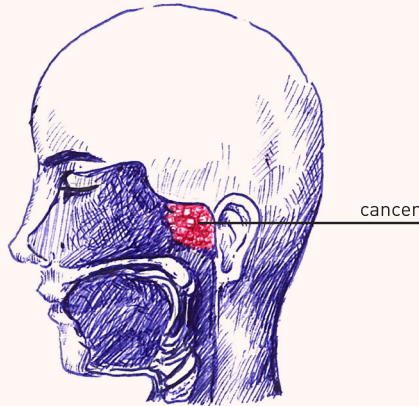
- Treat infections quickly
- Do not smoke and drink
- Avoid radiation and toxins
- Practice safe sex to avoid contracting infections

LYMPHOMA CANCER MYTHS VS FACTS

Myth	Fact
Treatment for cancer is always chemotherapy.	There are modern oral medications being used in place of chemo radiation.
I have lymphoma cancer. Treatment can't save me.	Today, there is a better understanding of molecular biology between lymphoma and its subtypes. Specific markers linked to specific subtypes of lymphomas can be identified and the new drugs available truly targets to kill cancer cells. In general, lymphoma treatment is very well-tolerated and highly effective.

Source: NCR 2007-2011, Lymphoma Association, Everyday Health

The Reality of Nasopharyngeal Cancer



Nasopharyngeal cancer is a type of head and neck cancer where malignant cancer cells form in the tissues of the nasopharynx. The nasopharynx is the upper part of the pharynx (throat) behind the nose.

REALITY CHECK

Nasopharyngeal cancer (NPC) is a common cancer among Malaysians and highly affects Malaysian men. In comparison to the rest of the world, the Malaysian Chinese male has the second highest incidence; the local Chinese women have the highest incidence in the world. In East Malaysia, the Bidayuhs and the Orang Ulus have the highest incidence of NPC.

Common Types of Nasopharyngeal Cancer

SQUAMOUS CELL CANCERS

There are several types of cancer that begin in the tissue that makes up the nasopharynx. However, among the more common nasopharyngeal cancers are squamous cell carcinomas. It is a type of cancer that develops in the squamous cell, which are the flat, skin-like cells that line the inside of your mouth, nose, larynx, and throat.

There are 3 main types of squamous cell cancers:

- Keratinising squamous cell carcinoma (type 1)
- Non-keratinising squamous cell carcinoma (type 2)
- Undifferentiated carcinomas (type 3)

A keratinising cancer has keratin in the cancer cells, which is the protein that forms your hair and nails.



Staging and Grading

Once you have been diagnosed positive for cancer after a biopsy test, the condition will be given a stage and grade. This vital information will help you and your healthcare team to choose the best treatment for you. The cancer stage will describe the size of the tumour and how far it has spread.

There are 4 stages for nasopharyngeal cancer:



- The cancer begins in the nasopharynx and may spread into the nasal cavity or oropharynx. The cancer has not spread to nearby tissues, lymph nodes or other organs.
- The cancer may have spread into the oropharynx or nasal cavity, and is also found in the lymph nodes on one side of the neck or behind the throat.
- The cancer has reached the areas next to the nasopharynx and may have started in the lymph nodes on one side of the neck or behind the throat.
- The cancer has spread to nearby bones and air cavities (sinuses). It might have also reached lymph nodes on one or both sides of the neck, or behind the throat, but not anywhere else.
- The cancer may have begun in the oropharynx, nasal cavity or surrounding area (parapharyngeal space) and has spread into the lymph nodes on both sides of the neck.
- The cancer is advanced and is broken into 3 groups:
 - 4A means the cancer has grown within the skull. It might be in the cranial (skull) nerves, eye or nearby tissues, or the lower part of the throat. There might be cancer cells in the lymph nodes on one or both sides of the neck. These nodes are smaller than 6cm and above the collarbone area. The cancer has not spread anywhere else.
 - 4B means the cancer may have reached into nearby tissues or bones. It has spread to at least one lymph node that is bigger than 6cm across, or a lymph node in the collarbone area, or both. The cancer has not spread anywhere else.
 - 4C means the cancer has spread to other parts of the body, such as the lungs.

There are 3 grades of nasopharyngeal cancer:

- Grade 1** - It is low grade, and the cancer cells look very much like normal nasopharyngeal cells.
- Grade 2** - It is an intermediate grade, and the cancer cells look slightly like normal nasopharyngeal cells.
- Grade 3** - Moderate grade with more abnormal appearing nasopharyngeal cells.



WARNING SIGNS

- Hearing loss, ringing in the ear, or feeling of fullness in the ear (especially on one side only)
- Ear infections that keep coming back
- Nasal blockage or stuffiness
- Nosebleeds
- Headache
- Facial pain or numbness
- Trouble opening the mouth
- Blurred or double vision



AM I AT RISK?

Yes, even more so with these factors:

- Tobacco and alcohol abuse
- A certain kind of diet; salt cured fish and meat
- Infection with the Epstein-Barr virus (EBV)

There are risk factors that can't be changed:

- Gender; it is found twice as often in males as it is in females
- Ethnicity; more common in Southeast China and Hong Kong
- Genetic factors
- Family history



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

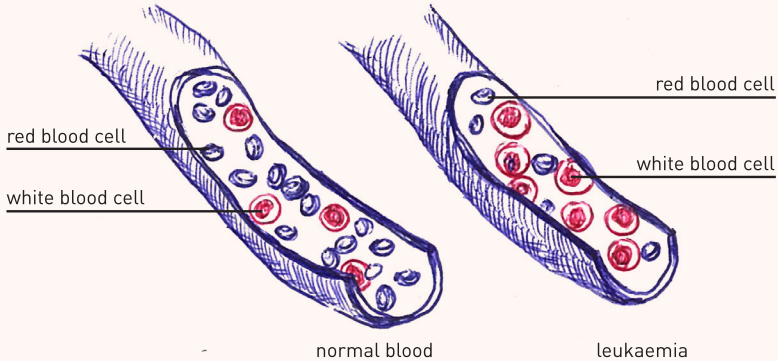
- Stop the use of tobacco products
- Stop or limit alcohol intake
- Have a healthy diet
- Schedule for screening

NASOPHARYNGEAL CANCER MYTHS VS FACTS

Myth	Fact
<p>NPC is only linked to certain parts of the world, mainly Southeast China.</p>	<p>Although research has shown that NPC is more common in Southeast China, those from other parts of the world are still subjected to the possibility as there are other factors involved, such as lifestyle choices.</p>
<p>Blocked nose or neck swelling is a common side effect for flu or fever. There is no need to check for NPC.</p>	<p>It is important to be aware of your nasopharyngeal health, especially if the flu-like symptoms are on-going. Ignorance often causes late diagnosis and delayed treatment. Early screening increases the chances of curing the disease.</p>

Source: NCR 2007-2011, Cancer.Net, Cancer Research Malaysia, Malaysian Oncology Society, The Borneo Post

The Reality of Leukaemia Cancer



Leukaemia is a cancer that develops in blood-forming tissue, generally the bone marrow. It causes an overproduction of abnormal immature white blood cells inside the bone marrow. The white blood cells are an important component of the immune system, which defends the body against infection. Leukaemia is described as either acute (rapidly growing) or chronic (slow growing).

REALITY CHECK

According to the National Cancer Registry, leukaemia is the sixth most common cancer in general population and it is the most common cancer among children from age 1 to 14 years.

Common Types of Leukaemia Cancer

ACUTE MYELOID LEUKAEMIA (AML)

AML is the most common type of acute leukaemia. Also known as acute myelogenous leukaemia, acute myeloblastic leukaemia, acute granulocytic leukaemia or acute nonlymphocytic leukaemia, it is a fast-growing form of cancer of the myeloid cell of the blood and bone marrow.

CHRONIC MYELOID LEUKAEMIA (CML)

Also known as chronic myelogenous leukaemia, it is a type of cancer that begins in the blood-forming cells of the bone marrow, and grows slowly. It begins as a chronic phase but can change into an accelerated phase after 3 to 4 years. However, CML can progress into a rapidly growing, acute form of leukaemia that can involve any organ in the body. What sets it apart from the rest is that it is consistently associated with an abnormal chromosome known as the Philadelphia chromosome (Ph chromosome).

ACUTE LYMPHOCYTIC LEUKAEMIA (ALL)

Acute lymphocytic leukaemia (ALL) is a type of blood cancer that begins when abnormal white blood cells accumulate in the bone marrow. Also called acute lymphoblastic leukaemia and acute lymphoid leukaemia, it progresses rapidly by replacing healthy cells that produce functional lymphocytes with leukaemia cells that can't mature properly. The leukaemia cells are carried in the bloodstream to other organs and tissues, including the brain, liver, spleen, and lymph nodes where they continue to grow and divide. This process soon creates a number of possible symptoms. It is more frequent in those under the age of 15 and less commonly in adults.

CHRONIC LYMPHOCYTIC LEUKAEMIA (CLL)

Chronic lymphocytic leukaemia (CLL) begins in lymphocytes in the bone marrow and extends into the blood. It develops when too many abnormal lymphocytes grow, leaving almost no room for normal blood cells, thus making it difficult for the body to fight infection. The abnormal lymphocytes take longer to develop and multiply. Therefore, it may take several years before it becomes symptomatic.



Staging and Grading

The diagnosis of leukaemia is always confirmed with a bone marrow biopsy test. Once this has been confirmed, the condition may be classified according to molecular or genetic testing, radiological staging or microscopic grading. This information will help the haematologist and the healthcare team to choose the best treatment for you. This will also help us prognosticate for you your treatment response and cure rates.



WARNING SIGNS

- Tiredness or no energy
- Shortness of breath during basic everyday activity
- Pale skin
- Discomfort or a “dragging” feeling on the upper left side of your stomach (caused by an enlarged spleen)
- Night sweats
- Bone pains
- Frequent fever
- Unexplained weight loss



AM I AT RISK?

Yes, even more so with these factors:

- Exposure to high dose radiation and/or certain industrial chemicals
- Certain chemotherapy drugs
- Smoking

There are risk factors that can't be changed:

- Family history
- Gender
- Race/Ethnicity
- Genetic syndromes
- Age



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

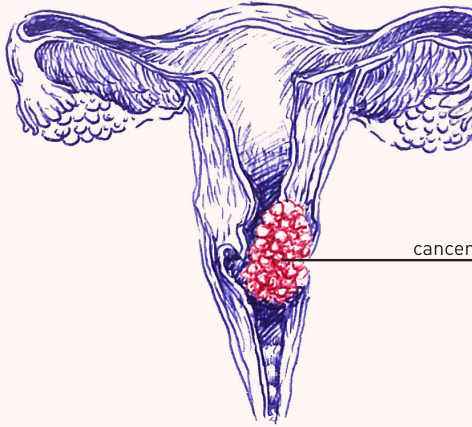
- Do not smoke
- Avoid any exposure to radiation or dangerous chemicals

LEUKAEMIA CANCER MYTHS VS FACTS

Myth	Fact
<p>Feeling run down, pale and tired all the time because there is too much to handle and it can be cured by a good rest.</p>	<p>Early leukaemia symptoms include fatigue, weakness, and a general sense of not feeling well. That's because the bone marrow is no longer able to produce enough red blood cells to transport oxygen to the organs and muscles.</p>
<p>Frequent and repeated infections are just something for which a doctor can prescribe an antibiotic.</p>	<p>The bone marrow of a person with leukaemia produces a very limited number of healthy white blood cells. These are needed as they are infection fighters. Frequent infections are the result of not enough white blood cells in the blood stream.</p>
<p>Bruising or bleeding, especially in children, is just part of being active.</p>	<p>A person with leukaemia is unable to produce adequate amounts of red blood cells and the platelets needed to help blood clot properly. Excessive bruising or bleeding may be an important warning sign of leukaemia.</p>

Source: NCR 2007-2011, LeukemiaCare.org, Cancer Treatment Centre of America, Leukemia and Lymphoma Society, TopMyths.com

The Reality of Cervical Cancer



Cervical cancer forms in the cells that line the cervix, which is the lower part of the uterus (womb). The cervix connects the body of the uterus to the vagina (birth canal).

REALITY CHECK

Every year, 2,145 Malaysian women are diagnosed with cervical cancer and 621 die from the disease. Cervical cancer is frequent among women in Malaysia and the 2nd most frequent cancer among women between 15 and 44 years of age.

Common Types of Cervical Cancer

SQUAMOUS CELL CARCINOMAS

Squamous cell carcinomas begin in the thin, flat cells that line the bottom of the cervix, or the exocervix. A more common type of cervical cancer, it accounts for 80 to 90 percent of cervical cancers.

ADENOCARCINOMAS

Adenocarcinomas develop in the mucus-producing glandular cells that line the upper portion of the cervix, or the endocervix. This type of cancer makes up 10 to 20 percent of cervical cancers and seems to have become more common in the past 20 to 30 years.



Staging and Grading

Once you have been diagnosed positive for cancer after a biopsy test, the condition will be given a stage and grade. This vital information will help you and your healthcare team to choose the best treatment for you. The cancer stage will describe the size of the tumour and how far it has spread.

There are 4 stages for cervical cancer:



- Cancer cells are found in the cervix but it is not growing outside the uterus.
- The cancer has not spread to nearby lymph nodes or distant sites.



- The tumour has grown through the cervix and invaded the upper part of the vagina, but it hasn't spread to the walls of the pelvis or the lower part of the vagina.
- The cancer has not spread to nearby lymph nodes or distant sites.



- The tumour has invaded the pelvic wall or the lower part of the vagina, and it may be blocking the ureters (tubes that carry urine from the kidneys to the bladder).
- The cancer has not spread to nearby lymph nodes or distant sites.



- At this advanced stage, the tumour has reached the bladder or rectum.
- The cancer has also spread to other parts of the body, such as the lungs.

There are 3 grades of cervical cancer:

- Grade 1** – It is low grade, and the cancer cells look very much like normal cervical cells.
- Grade 2** – It is an intermediate grade, and the cancer cells look slightly like normal cervical cells.
- Grade 3** – It is high grade, and the cancer cells look very abnormal and are very unlike normal cervical cells.



WARNING SIGNS

- Unusual vaginal bleeding
- Abnormal vaginal discharge; may contain blood that occurs in between periods or menopause
- Pelvic pain
- Experiencing pain during sexual intercourse



AM I AT RISK?

Yes, even more so with these factors:

- Human papillomavirus (HPV) infection
- Chlamydia infection
- Overweight
- Long term use of oral contraceptives
- Having multiple full-term pregnancies
- Smoking

There are risk factors that can't be changed:

- Family history



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

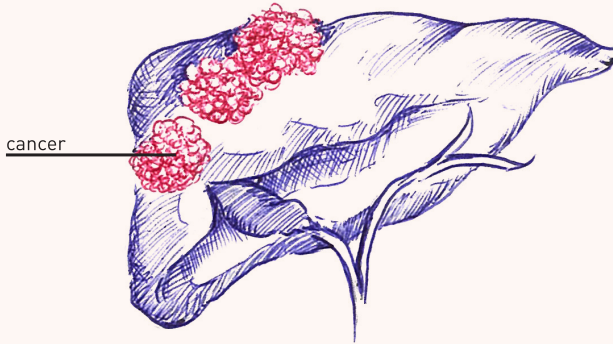
- Delaying first sexual intercourse until the late teens or older
- Limiting the number of sex partners
- Avoiding sexual intercourse with people who have had multiple partners
- Avoiding sexual intercourse with people who are obviously infected with genital warts or show other symptoms
- Quit smoking
- Get HPV vaccination

CERVICAL CANCER MYTHS VS FACTS

Myth	Fact
Cervical cancer cannot be prevented.	Cervical cancer can be prevented, and it happens to be one of the most preventable cancers. A Pap test procedure could detect abnormal changes in the cells of your cervix, and if found, they can be monitored and treated so that the cancer never develops.
I've had a hysterectomy so I don't need Pap tests.	If you had a hysterectomy and you still have your cervix, it's important to continue having regular Pap tests.
I have no symptoms therefore I do not need to get a Pap test.	Cervical cancer can be present without realising that there were any symptoms.

Source: NCR 2007-2011, American Cancer Society, Cancer.Net, HPV Information Centre

The Reality of Liver Cancer



Liver cancer, also known as hepatic cancer, activates in the cells of your liver, which is a football-sized organ that sits in the upper right portion of your abdomen, beneath your diaphragm and above your stomach. Malignant cells that develop in the normal cells of the liver (hepatocytes) are called hepatocellular carcinoma.

REALITY CHECK

There were 605 cases of liver cancer diagnosed in 2007 and reported to the Malaysian National Cancer Registry, comprising 443 males and 162 females. The incidence of liver cancer increases with age and higher in males compared to females. The Chinese were found to have higher incidence rate compared to Malay and Indian races.

Common Types of Liver Cancer

HEPATOCELLULAR CARCINOMA (HCC)

HCC begins in the main type of liver cells, called hepatocellular cells. Also called hepatoma, it is the most common type of liver cancer, accounting to approximately 75 percent of all liver cancers.

CHOLANGIOCARCINOMA

A type of bile duct cancer, it occurs in the small, tube-like bile ducts within the liver that transfers bile to the gallbladder. Cholangiocarcinoma cases account for 10-20 percent of all liver cancers. There are two subtypes of cholangiocarcinoma; intrahepatic bile duct cancer which begins in ducts within the liver, and extrahepatic bile duct cancer that develops in ducts outside the liver.

ANGIOSARCOMA

Angiosarcoma, also called hemangiocarcinoma, begins in the blood vessels of the liver and develops quickly. The speedy growth is often the reason why they are typically diagnosed at an advanced stage. Angiosarcoma cases account for about 1 percent of all liver cancers.

FIBROLAMELLAR HCC

Fibrolamellar HCC is a rare type of HCC that is often more responsive to treatment than other types of liver cancer.

SECONDARY LIVER CANCER

Secondary liver cancer develops when primary cancer from another part of the body spreads to the liver. Also known as a liver metastasis, it mostly originates from colorectal cancer. More than half of cancer cases that was diagnosed with colorectal cancer develop secondary liver cancer.



Staging and Grading

Once you have been diagnosed positive for cancer after a biopsy test, the condition will be given a stage and grade. This vital information will help you and your healthcare team to choose the best treatment for you. The cancer stage will describe the size of the tumour and how far it has spread.

There are 4 stages for liver cancer:



- There is a single tumour that has not spread to the blood vessels, lymph nodes or any other part of the body.



- A single primary tumour, or several small tumours, all less than 5cm in diameter have grown into the blood vessels.
- The cancer has not spread to nearby lymph nodes or any other part of the body.



- Stage III liver cancer is divided to 3 subcategories:
 Stage III A: There are several tumours and at least one is larger than 5cm. The cancer has not spread to nearby lymph nodes or any other part of the body.
 Stage III B: The cancer has grown into one of the main blood vessels of the liver, but cancer cells have not spread into the lymph nodes or to any other part of the body.
 Stage III C: The cancer has spread into organs close to the liver, or the tumour has grown into the outer covering of the liver. The cancer has not spread to nearby lymph nodes or to any other part of the body.



- The cancer has spread to nearby lymph nodes and may have grown into nearby blood vessels or organs.
- Advanced liver cancer does not often spread to distant organs, but when it does, it is most likely to spread to the lungs and bones.

There are 3 grades of liver cancer:

- Grade 1** - It is low grade, and the cancer cells look very much like normal liver cells.
- Grade 2** - It is an intermediate grade, and the cancer cells look slightly like normal liver cells.
- Grade 3** - It is high grade, and the cancer cells look very abnormal.



WARNING SIGNS

- Hepatomegaly - enlarged liver, the abdomen may appear swollen
- Jaundice - skin, tongue and whites of the eyes become yellow
- Abdominal pain - often on the right side, may reach as high up as the shoulder
- Unknown reason for weight loss
- Fatigue
- Nausea and emesis (vomiting)
- Back pain
- General itching
- Fever



AM I AT RISK?

Yes, even more so with these factors:

- Heavy use of alcohol
- Smoking habit
- Exposure to arsenic and chemicals
- Harbour the Hepatitis B (HBV) or Hepatitis C virus (HCV)
- Obesity

There are risk factors that can't be changed:

- Age
- Gender and ethnicity
- Family history
- Inherited metabolic disease
- Diabetes



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

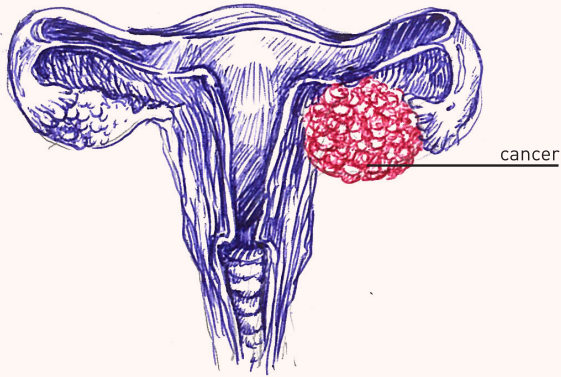
- Do not smoke
- Limit alcohol intake
- Do not use intravenous (IV) drug, unless under the supervision of health care professional
- Maintain a balanced body weight
- Quit smoking
- Get HPV vaccination

LIVER CANCER MYTHS VS FACTS

Myth	Fact
Liver disease is a consequence of alcoholism.	Alcohol is only one cause of over 100 forms of liver disease.
Only adults get liver disease.	Children are also affected. The major causes of liver disease in children are genetics, viruses (Hepatitis A, B, C) and blockages in the flow of bile from the liver. In addition, obese children are at high risk of developing a fatty liver.

Source: NCR 2007-2011, Medical News Today, Cancer Treatment Centre America, Prevent Cancer Foundation, LiverSupport.com

The Reality of Ovarian Cancer



**The ovaries are the reproductive gland found in females.
Ovarian cancer happens when a cancerous growth is found in the ovary.**

REALITY CHECK

According to the National Cancer Registry, ovarian cancer is a common cancer among women in Peninsular Malaysia, making up five per cent of all female cancer cases.

Common Types of Ovarian Cancer

EPITHELIAL OVARIAN CANCER

It begins in the layer of cells that cover the ovary and the entire abdominal cavity. This is the most common ovarian cancer type, accounting up to 90 percent of all cases.

GERM CELL OVARIAN CANCER

Germ cell ovarian cancer begins in the egg-producing cells inside the ovaries. Those who are prone to have this type of ovarian cancer are usually women in their 20s and teenage girls.

SEX CORD-STROMAL OVARIAN CANCER

Sex cord-stromal ovarian cancer originates in the connective tissue of the ovaries, which also produces the female sex hormones. About 60-95 per cent of ovarian sex cord-stromal cases are diagnosed at Stage I and treated by surgery alone.



Staging and Grading

Once you have been diagnosed positive for cancer after a biopsy test, the condition will be given a stage and grade. This vital information will help you and your healthcare team to choose the best treatment for you. The cancer stage will describe the size of the tumour and how far it has spread.

There are 4 stages for ovarian cancer:



- The cancer is only within the ovary.
- It has not spread to organs and tissues in the abdomen or pelvis, lymph nodes, or to distant sites.

- The cancer is in one or both ovaries and has spread to other organs within the pelvis.
- It has not spread to lymph nodes or distant sites.

- The cancer is in one or both ovaries.
- The cancer has either spread beyond the pelvis to the lining of the abdomen or the cancer has spread to the lymph nodes in the back of the abdomen.

- This is the most advanced stage of ovarian cancer.
- The cancer has spread to the inside of the spleen, liver, lungs, or other organs located outside the abdomen and pelvic region.

There are 4 grades of ovarian cancer:

- Grade 1** - It is low grade, and the cancer cells look very much like normal ovarian cells and are less likely to spread.
- Grade 2** - It is an intermediate grade, and the cancer cells look slightly like normal ovarian cells.
- Grade 3 and 4** - It is high grade, and the cancer cells look very abnormal and are very likely to spread.



WARNING SIGNS

- Pain in the lower stomach
- Pain on the lower side of the body
- Pain in the pelvic area
- Back pain
- Experiencing pain during sexual intercourse
- More frequent and urgent urination
- Indigestion or heartburn
- Feeling full quickly when eating
- Changes in bowel movement, such as constipation



AM I AT RISK?

Yes, even more so with these factors:

- Obesity
- Late pregnancy or have never been pregnant
- Hormone replacement therapy

There are risk factors that can't be changed:

- Age; especially after menopause
- Gender
- Family history



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

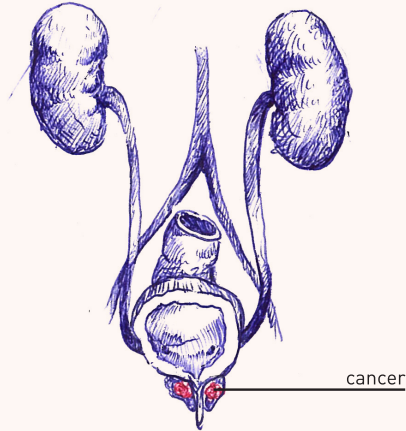
- Taking oral contraceptives
- Breastfeed
- Pregnancy
- Gynecologic surgery; tubal ligation and hysterectomy
- Genetic counseling and testing

OVARIAN CANCER MYTHS VS FACTS

Myth	Fact
My annual Pap test will detect ovarian cancer.	Actually, a Pap test only screens for cervical cancer, NOT ovarian cancer.
Ovarian cysts always turn into ovarian cancer.	Studies show that the majority of ovarian cysts will not grow into ovarian cancer.
I've had a hysterectomy so there is no chance of getting ovarian cancer.	Total hysterectomy removes the uterus, ovaries, fallopian tubes, and cervix. Although having a hysterectomy greatly reduces your risk, there is still a small chance of developing ovarian cancer. Be aware of any symptoms and consult your doctor.

Source: NCR 2007-2011, American Cancer Society, Medical News Today, Malaysian Oncology Society

The Reality of Prostate Cancer



Prostate is a small walnut-shaped gland that produces seminal fluid in males. Prostate cancer occurs when the cells in the prostate gland begins to grow abnormally and uncontrollably.

REALITY CHECK

It is the 4th most common male cancer in Malaysia which accounts for 5.7 per cent of cancer cases in males.



Staging and Grading

Once you have been diagnosed positive for cancer after a biopsy test, the condition will be given a stage and grade. This vital information will help you and your healthcare team to choose the best treatment for you. The cancer stage will describe the size of the tumour and how far it has spread.

There are 4 stages for prostate cancer:



- The cancer is minor and only found in the prostate.
- The cancer is larger and may be in both lobes of the prostate but is still within the prostate.
- The cancer has spread out of the prostate to nearby lymph glands or seminal vesicles.
- This cancer has spread to other organs such as the bone and is referred to as metastatic cancer.



WARNING SIGNS

- Painful or difficult urination, and frequent urination, especially at night
- Reduced urinary flow or velocity
- Loss of bladder control
- Blood in the urine (hematuria) and seminal fluid
- Discomfort in sitting due to enlarged prostate



AM I AT RISK?

Yes, even more so with these factors:

- Diet
- Obesity
- Smoking
- Prostate cancer

There are risk factors that can't be changed:

- Age
- Gender
- Race/Ethnicity (more common with men of African ancestry)
- Family history
- Inherited mutation of genes (BRCA1 or BRCA2)
- Geography



WHAT CAN I DO?

Beat the cancer. Cut your risk by taking these steps:

- Balanced body weight
- Maintain a good diet
- Exercise
- Talk to your doctor about the risk and health screening

PROSTATE CANCER MYTHS VS FACTS

Myth	Fact
Vasectomies cause prostate cancer.	Vasectomy has not been linked to increasing a man's chance of getting prostate cancer. Instead, it has led to the prostate being checked by the urologist more often and prostate cancer consequently being detected during these checkups.
Treatment for prostate cancer always causes impotence or incontinence.	These side effects are highly dependent on age, physical condition, and type of treatment chosen.
Prostate cancer is an old man's disease.	While it may be true that you are more likely to be diagnosed with prostate cancer the older you get (65% of cases are diagnosed in men who are 65 or older), the fact remains that the balance 35% were diagnosed at an early age.

Source: NCR 2007-2011, American Cancer Society, Prostate Cancer Foundation

**This educational guide should not replace the examination and advice of a trained doctor.*

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Improving THE LIVES WE TOUCH

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