



# Your Life

Scientific Monthly issue

Teacher : Mohammed Majzoub

## Cancer : a horrible word

Cancer, that word which makes people counting the days that are left to live, what a miserable life is waiting them, when do they start feeling the severe pain?... Is cancer a life threatening as we expect? Are all cancers are severe?

*What is cancer?* Cancer is a term for large group of diseases that affect any part of the body where abnormal cells divide without limit and control and spread to other parts through blood and lymph.

*Origin of cells:* usually it starts with a single cell which is subjected to a mutation or change in the ge-

netic material represented by DNA and affect the normal growth then this cell passes in multistages to become a tumoral cell. But tumors may be benign ( not cancerous and don not spread) and may be malignant( cancerous). These changes are the results of interaction between genetic factors and three categories of external agents or carcinogens : chemical as components of tobacco smoke and alcohol, physical as ultraviolet radiations, and biological as infections by viruses.

*Risk factors* are: low intake of vegetables and fruits,

ageing, infections from hepatitis ( liver) and HPV ( cervix ,anus), and HIV . Alcohol and tobacco use, overweight), air pollution. So *prevention of cancer* can be done by avoiding the different risk factors



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Special points of interest:

- J How can we avoid risk factors?
- J How can we detect?
- J Let us explore different symptoms
- J Our responsibility

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## Detection and treatment

Early *detection* may reduce the cancer cases about 30%. This detection depends on observation and its aim to keep the cancer localized and unable to spread as in the cases of . Breast, rectal,and cervical

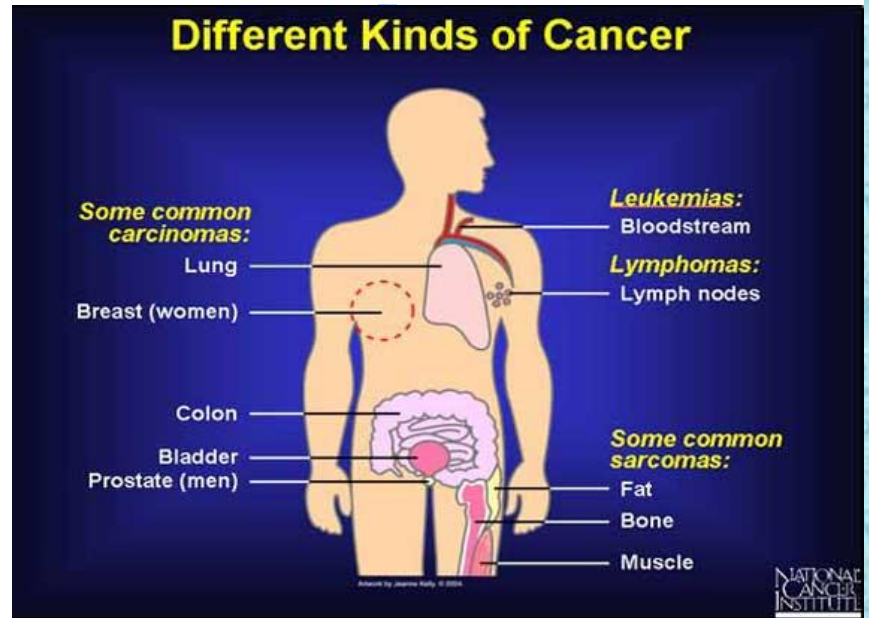
cancers.This observation can be encouraged by increasing educational programs and about early signs as sores, persistent coughing, permanent indigestion,..

*Treatment* : it focuses on how to improve the quality

of the patient's life and how to cure him. Principal methods are: surgery, chemotherapy and radiotherapy. Accurate diagnosis is required by imaging technology as MRI , ultrasound...

## Kinds of cancer

First kind is carcinomas cancers, the most common type, arises from cells that cover external and internal body surfaces as lung, breast and skin cancers are main examples. The second kind is sarcomas which arises from cells found in support tissues as bones, muscles, and cartilage. The third kind is lymphomas cancers that arise from the lymph nodes and tissues of immune system. The fourth is leukemias cancers which arise at immature blood cells that grow in bone marrow due to mutation and attain a new role far from immune role or respiratory role.



## Breast Cancer

It forms in the tissues of the breast, mainly the ducts and lobules that contain mammary glands. It occurs in both males and females but rare in males. It may be due to genetic origin. Women who have mutation in the genes BRCA1 or BRCA2, present a high risk of breast and also ovarian cancers especially about 50 years age. The traditional surveillance

is mammography and clinical examinations, self examination, CA-125 blood test, transvaginal ultra sound of ovaries. But this is less effective in young women, breast imaging technique is promising in screening including MRI, and nipple aspiration and biopsy. Those women may have the chance of preventing by taking medicines as tamoxifane and raloxifene

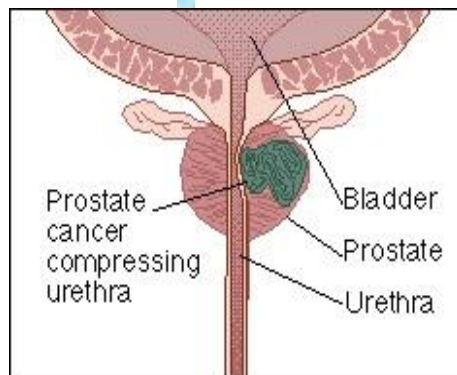
that belong to selective estrogen receptor modulators but the largest prevention method is by surgery where the breasts and or ovaries are removed to reduce

Any lump does not mean cancer but you have to check

## Prostate Cancer

It forms in the tissues of prostate gland usually in older men. It is not accompanied by symptoms but once symptoms appear, it means that cancer is spread beyond prostate.

Upto 75% of prostate



cancers can be prevented by taking low fat diet, vit A and D and the carotenoid lycopene.

How? By eating more tomatoes! The lycopene in

tomatoes is a powerful antioxidant that has been known to reduce prostate cancer.

Prostate cancer can be tested by a simple blood test called PSA recommended in old men where if present in high rates indicates cancer.

## Lung cancer

Lung cancer is the leading cause of cancer death for both men and women. More individuals die of lung cancer than of colon, breast and prostate cancers combined. In 2007, there were more than 200,000 new cases of lung cancer diagnosed in the United States. About six of 10 individuals with lung cancer die within one year of their diagnosis. These cancers are generally categorized by cell type, such as small cell or non-small cell carcinomas. These categories are used for treatment decisions and determining prognosis (prospect of recovery). Currently there is no recommended screening test for lung cancer.

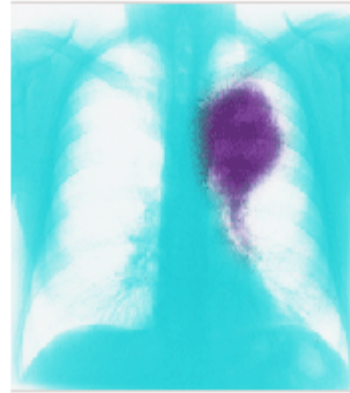
**Risk factors** : smoking, exposure to

arsenic, asbestos and to radiations and the presence of family history.

**Symptoms**: persistent cough, chest pain, cough up blood, shortness of breath, recurrent respiratory infections.

**Treatment**: depends where cancer is located and how it is spread. Chemotherapy, radiology and surgery are recommended

Chest x ray showing a primary lung cancer

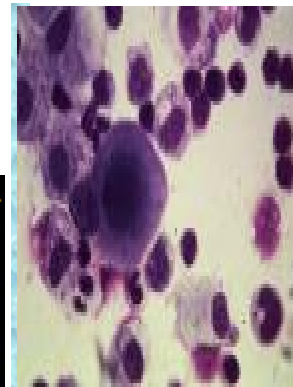
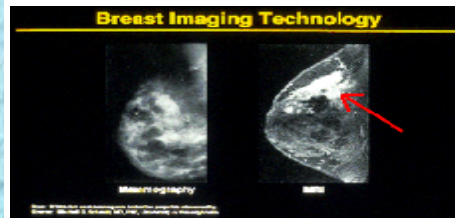


## Tips

If you had to choose a fruit to keep your colon Happy? Do not say apple only for pectin, you have to add long grain for fiber and drink milk instead of soda and add onion slices.

Most cases of leukemia do not have any risk factor. Acute and chronic cases are present but acute is more

serious. In addition to chemotherapy and radiotherapy, stem cells transplantation sometimes serve as the only therapy for survival.



Do you know that eating tomatoes is very effective in preventing prostate cancer in men?

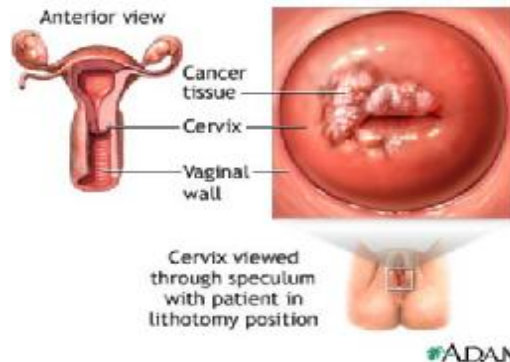
## Cervical Cancer

This story can fit 75-125 words.

Selecting pictures or graphics is an important part of adding content to your newsletter.

Think about your article and ask yourself if the picture supports or enhances the message you're trying to convey. Avoid selecting images that appear to be out of context.

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newsletter. There are also several tools you can use to draw shapes and symbols.

Once you have chosen an image, place it close to the article. Be sure to place the caption of the

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Life Science Department

Saida Official Secondary School for  
Boys

Phone: 07 723695

Cell: 03261466

E-mail: [mohmajzoub@yahoo.com](mailto:mohmajzoub@yahoo.com)



## Who is Responsible?

*Do you know that Chekka villages were highly affected with polluted air enriched with chemicals that spread from chimneys of cement factories and many cases of lung cancer appeared in that area as told?*

*Do you know that some plants as cucumber are supplied with growth hormones to develop faster with greater economic advantages but reach the consumer in shorter time less than the permitted time, thus in-*

## To avoid !!!

Now, we already know that cancer is due to a mutation, and its spread increases with weaker immune system. So, can we avoid as much as we can these mutations? Can we maintain a well and active immune system? HOW?

We can create a clean and non polluted environment, we are able to provide our kids with food without added preservatives, chemicals, artificial colorations and flavors.

We can avoid smoking which kills us and kills our children and families since positive and nega-

tive smokers acquire the risk factors of lung cancer, leukemia and

others.

