

CANCER

When abnormal cells grow rapidly and uncontrollably, we say that the person has developed **cancer**. Abnormal cells that have the potential to become cancer cells are produced everyday but are destroyed by the immune system. However, cancer may develop if: **1) the immune system becomes weakened or 2) the number of cancerous cells becomes overwhelming (outnumbers the good cells)**

Cancerous cells may develop into a **tumor** which is:

An abnormal mass of tissue that has no natural role in the body

BENIGN: noncancerous; surrounded by membranes that prevent them from spreading. Can be dangerous if they interfere with normal function of organs, etc

MALIGNANT: cancerous; spread to neighboring tissues and through the blood to other parts of the body. As it spreads, it divides and forms new tumors.

Many cancers harm the body because . . .

They kill normal cells when they compete with them for nutrients; tumor put pressure on surrounding tissue & organs, interfering with body function; they can also block arteries, veins and other body passages.

RISK FACTORS FOR CANCER:

The majority of cancers are caused by exposure to certain factors that increase the risk of cell damage such as **carcinogens**.

1. **TOBACCO USE**

- a. About 87% of lung cancer deaths are caused by smoking
- b. Also increases the risk of cancers of the:

- 1. **bladder**
- 2. **pancreas**
- 3. **kidney**

2. **SEXUALLY TRANSMITTED INFECTIONS**

HPV & Hepatitis B viruses cause cancers of cervix & liver

3. **DIET**

- a. About 30% of all cancers are caused by dietary risk factors, specifically diets that are high in **fat** and low in **fiber**
 - 1. Fats affects colon cells by . . .**making them more susceptible to carcinogens & divide rapidly increasing chance of abnormal cells forming**
 - 2. Choosing foods low in fat & high in fiber reduces the risk of **_colon_, _breast_ & _prostate** cancers
 - *Fiber speeds the movement of waste through the intestines so carcinogens have less time to act of cells

4. **RADIATION**

- a. The main cause of skin cancer is **ultraviolet radiation (UV)** from the sun, tanning beds or sun lamps. In reality, a “tan” is the body’s response to being injured by the “UV” rays
- b. About 80% of skin cancers are preventable by:
 - a. **Reducing exposure to UV rays by avoiding tanning beds**

- b. Limiting your time in the sun (especially 10am - 4pm)
- c. When in the sun wear protective clothing and SPF of at least 15
- d. Pay attention to changes in moles on the skin
- e.

****Estimated that 60% of cancers can be prevented through healthy lifestyle choices**

DETECTING + TREATING CANCERS

If it is thought a person may have cancer, a **biopsy** is performed to determine if cancer is present.

The methods to treat cancer depend on several factors, such as type of cancer, whether or not the cancer has metastasised, and the patient's age/overall health. Treatment may include one or more of the following:

1. Surgery: **removes some/all cancerous masses from the body**
2. Radiation therapy: **aims rays from radioactive substances at cancerous cells, the radiation kills cancerous cell and shrinks cancerous mass**
3. Chemotherapy: **uses chemicals to destroy cancer cells through the bloodstream**
4. Immunotherapy: **activates a person's immune system to recognize specific cancers and destroy them**
5. Hormone therapy: **involves using medicines that interfere with the production of hormones. Kills cancer cells or slows their growth**

WARNING SIGNS OF CANCER

The American Cancer Society recommends that everyone take **“CAUTION”** in being alert of warning signs of cancer

C: *change in bowel habits (loose or constipated)*

A: *a sore that does not heal*

U: *unusual bleeding or discharge from body*

T: *thickening or a lump in breast or elsewhere (see a Dr.!!)*

I: *indigestion or difficulty swallowing (persistent)*

O: *obvious change in a wart or mole*

N: *nagging cough or hoarseness of throat*

Other symptoms include constant fatigue (despite a good night's sleep) or unexplained weight loss.