**Introduction to Noncommunicable Diseases**

Noninfectious diseases

Cancer

Diabetes

**Noninfectious Diseases**

Often people hear the word disease and they think it is a condition that is contagious. However, the greatest threat today is a group of diseases that are not contagious or transmitted by pathogens. Cardiovascular disease, cancer, allergies, asthma, diabetes, and arthritis are the most common noninfectious diseases.

**Diseases of the Heart**

Cardiovascular disease (CVD) affects the heart or blood vessels. The two most common cardiovascular diseases are the following:

* + Hypertension (high blood pressure)
	+ Atherosclerosis (an accumulation of plaque on the artery walls)

The following are examples of other diseases of the heart:

* + **Angina** pectoris –Chest pain that results when the heart doesn’t get enough oxygen
	+ **Arrhythmia** –Irregular heart beats
	+ **Heart attack** –Damage to the heart muscle caused by reduced or blocked blood supply
	+ **Stroke** –Results from an arterial blockage that interrupts the flow of blood vessels to the brain or from a cerebral hemorrhage, a burst blood vessel in the brain.

Some of the risks for cardiovascular diseases can be controlled, such as high blood pressure, high cholesterol, excess weight, stress, tobacco, alcohol and drug use. Other factors, such as heredity, gender, and age, cannot be controlled.

**Tumor**

Life begins as a single cell that divides millions of times. Cell division occurs throughout life as old, dead cells are replaced by new cells. Sometimes the normal forces regulating cell growth are disrupted. Abnormal cells grow and spread to healthy cells. These uncontrolled abnormal cell growths are called **cancer**. Therefore, cancer is an uncontrollable growth of abnormal cells, called a tumor. There are two kinds of tumor, which are:

* + Benign (noncancerous)
	+ Malignant (cancerous)

When cancer spreads from the point of origination to other parts of the body it is called **metastasis***.*

**Types of Cancer**

Listed below are the different types of cancer that have been identified:

**Skin Cancer**

**Breast**

**Reproductive System**

* + Male – Prostate gland
	+ Female – Cervix, ovaries, and uterus

**Respiratory System**

* + Larynx
	+ Lungs

**Digestive System**

* + Colon (Large intestine)
	+ Rectum (Excreting tract)

**Blood and Lymph System**

* + Bone marrow
	+ Lymph
	+ Leukemia (Cancer of the bone marrow)

**Preventing Cancer**

Cancer causing substances are called **carcinogens**. Many types of cancer can be prevented through healthy lifestyle choices.

The following are examples of healthy lifestyle choices:

* + Maintain a healthy weight
	+ Being physically active
	+ High fiber diet
	+ A diet low in saturated fats
	+ Protect your skin from ultraviolet (UV) radiation
	+ Avoid alcohol and tobacco
	+ Practice sexual abstinence

Top of Form

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Top of Form

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**Warning Signs and Detecting Cancer**

There are **seven** warning signs of cancer that you should be aware of:

* + Change in bowel or bladder habits (such as constipation, diarrhea, or incomplete emptying of the bowel).
	+ A sore that does not heal
	+ Unusual bleeding or discharge (particularly from the rectum or vagina)
	+ Thickening or lump in the breast
	+ Indigestion or difficulty in swallowing
	+ Obvious change in a wart or mole (such as growth discharge or unusual appearance)
	+ Nagging cough or hoarseness

Early detection of cancer is the most critical factor in combating the disease. Many types of cancer can be detected during regular physical examinations.

**Treating Cancer**

The following are cancer treatments that are currently available:

* + **Surgery**– Remove the tumor and affected area
	+ **Radiation**– Colbalt or radium energy that destroys the tumor cells by damaging the DNA
	+ **Chemotherapy**– Use of anti-cancer medications

### Diabetes

There are **two** types of diabetes:

**Type 1**– Type 1 diabetes is usually diagnosed in children and young adults, and was previously known as **juvenile diabetes**. Only five percent of people with diabetes have this form of the disease.

In Type 1 diabetes, the body does not produce insulin. **Insulin** is a hormone that is needed to convert sugar, starches, and other food into energy needed for daily life. With the help of insulin therapy and other treatments, even young children can learn to manage their condition and live long, healthy lives.

**Type 2**– Diabetes is a problem with your body that causes blood glucose (sugar) levels to rise higher than normal. This is also called **hyperglycemia**. Type 2 diabetes is the most common form of diabetes.

If you have Type 2 diabetes, your body does not use insulin properly. This is called **insulin resistance**. At first, your pancreas makes extra insulin to make up for it. However, over time it isn't able to keep up and can't make enough insulin to keep your blood glucose at normal levels.

**Other Non-Communicable Diseases**

Listed below are other examples of non-communicable diseases:

* + **Allergies**– Allergies are a reaction of the immune system to a foreign substance called allergens. Allergens include, food, pollen, dust, mold spores, chemicals, and insect venom.
	+ **Asthma**– Asthma is an inflammatory condition that narrows the small airways in the lungs, causing difficulty in breathing.
	+ **Arthritis**– Arthritis is a group of diseases that cause pain and loss of movement in joints. There are **two** types of arthritis: osteoarthritis and rheumatoid arthritis.