

Noncommunicable Diseases:

Lesson 1

Chapter 14

What Are Noncommunicable Diseases?

An allergy is an example of a noncommunicable disease.

**noncommunicable disease**

A disease that cannot be spread from person to person

What Are Noncommunicable Diseases?

Some noncommunicable diseases are chronic.



chronic Present continuously on and off over a long period of time

Noncommunicable Diseases

Allergies and Asthma

Causes of Noncommunicable Diseases

People may be born with some diseases.
(heredity)

People may choose unhealthful behaviors.

The environment may cause some diseases or make others worse.
(asthma, emphysema, and bronchitis)

Allergies and Asthma

What Are Allergies?

If you get itchy and start to sneeze around flowers, you may have an allergy.



allergy An extreme sensitivity to a substance

Allergies and Asthma

What Are Allergies?

Common allergens include pollen.



allergens Substances that cause allergic responses



pollen A powdery substance released by the flowers of some plants

Noncommunicable Diseases

Allergies and Asthma

Common Allergens

Pollen



Insect bites or stings



Food



Plants such as poison ivy



Allergies and Asthma

Common Allergens



When smog is especially heavy, people with asthma or other respiratory conditions should limit their time outdoors.

Allergic Reactions

Common Allergic Reactions

Eyes can be red, watery, and itchy.

Nose can be runny and irritated. Sneezing is common.

Throat can become irritated and start swelling.

Respiratory system can become irritated. May lead to coughing and difficulty breathing.

Skin can become irritated and break out in a rash or hives.

Digestive system can be upset. Cramping, stomach pains, and diarrhea are common.

Allergies and Asthma

Managing Allergies

- Avoid the allergen
- Take antihistamines
- Get injections



antihistamines Medicines that reduce the production of histamines

Allergies and Asthma

What Is Asthma?

Asthma is a growing problem in many countries.



asthma A chronic inflammatory disorder of the airways that causes air passages to become narrow or blocked, making breathing difficult

What Is Asthma?

Common Triggers of Asthma

Allergens

mold, dust, pollen, and pets

Infections of the

respiratory system

Physical activity

Dramatic weather changes

Air pollutants

Fumes, smoke, and smog

Rapid breathing

An Asthma Attack

Symptoms of An Asthma Attack

Wheezing

Shortness of breath

Coughing

Tightness or fullness in
the chest

Managing Asthma

Ways to **Manage** Asthma

Monitor the condition

Manage stress

Manage the environment

Take medication

Managing Asthma

Two Types of Medications

Relievers
(**Bronchodilators**)

Controllers
(Medicines are taken daily
and help prevent asthma
attacks.)



bronchodilators Medications that relax the muscles
around the air passages. (*inhaler*)

Noncommunicable Disease:

Lesson 2

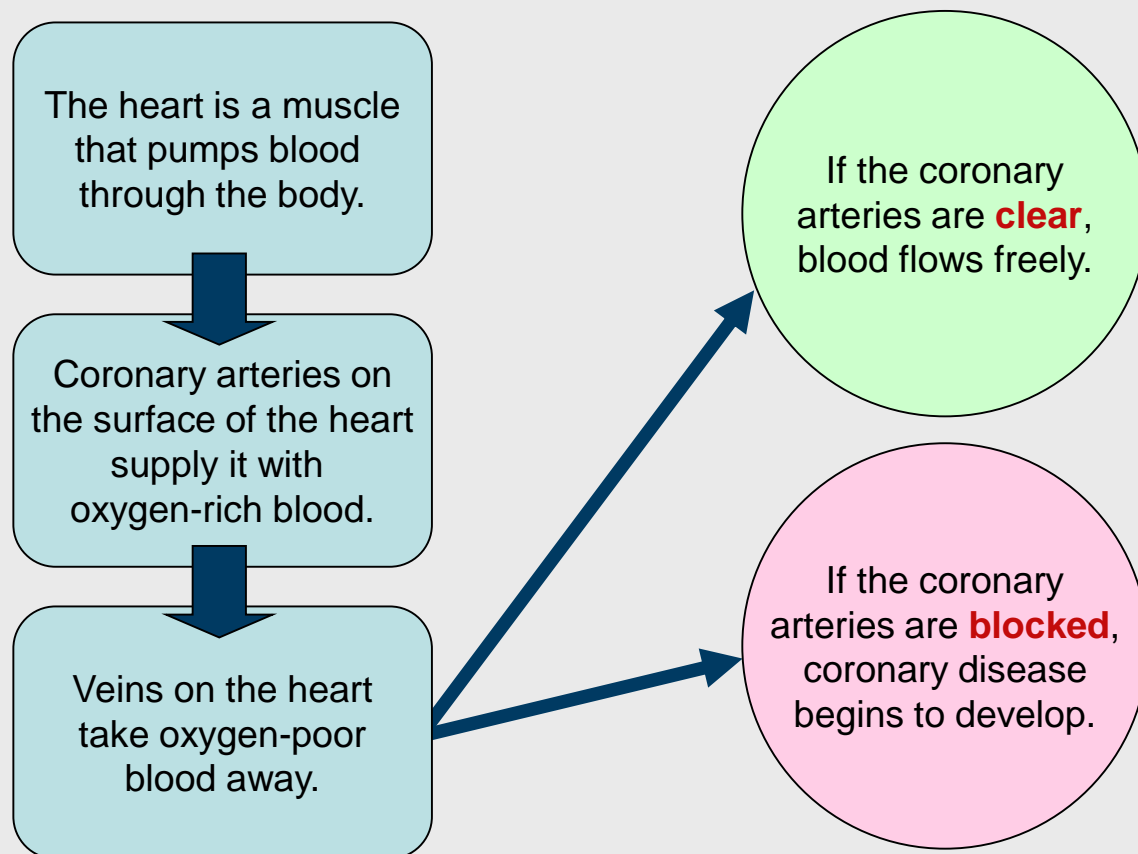
Heart Disease

What Is Cardiovascular Disease?

Cardiovascular or heart disease is any condition that **reduces** the **strength** of the heart and blood vessels.

Sometimes, heart disease is due to heredity, but it is usually related to lifestyle.

Types of Coronary Heart Disease



Coronary Heart Disease

When buildup collects inside the arteries, it takes up space needed for blood to flow through.

If the coronary arteries become blocked with too much buildup, the heart may not get enough oxygen.

Allergies and Asthma

A Heart Attack

A heart attack can happen if the heart does not get enough oxygen from the blood.



heart attack A serious condition that occurs when the blood supply to the heart slows or stops and the heart muscle is damaged.

A Heart Attack

Symptoms of a Heart Attack for Males

Pain or pressure in the chest

Pain in the arms, jaw, back or
abdomen

Shortness of breath

Cold skin

Nausea

Passing out

Symptoms of a Heart Attack for Females

Similar to males, but more likely
than males to experience
shortness of breath, nausea, and
pain in their back jaw.

Other Problems of the Circulatory System

Hypertension can lead to a heart attack or a stroke.



hypertension A disease in which the pressure of the blood on the walls of the blood vessels stays at a level that is higher than normal



stroke A serious condition that occurs when an artery of the brain breaks or becomes blocked

Preventing Heart Disease

Eat healthful foods.

**Limit cholesterol,
trans fats, and saturated fats.**

Manage stress.

**Participate in regular
physical activity.**

Stay tobacco free.

Maintain a healthy weight.

Stay alcohol free.

Allergies and Asthma

Treating Heart Disease

Angioplasty is a popular method for treating heart disease.



angioplasty A surgical procedure in which an instrument with a tiny balloon, drill bit, or laser attached is inserted into a blocked artery to clear a blockage

Treating Heart Disease

Other methods used to treat heart disease are:

- Medications
- Pacemakers
- Bypass surgery
- Heart transplants

Noncommunicable Disease:

Lesson 3

Cancer

What Is Cancer?

Cancer is a collective term for more than 100 different diseases.



cancer A disease that occurs when abnormal cells multiply out of control

Any tissue in the body can become cancerous.

Allergies and Asthma**What Is Cancer?**

Even in healthy bodies, some cells become abnormal.

Your body's immune system usually destroys these cells, but some abnormal cells can survive and begin to divide.

Allergies and Asthma

What Is Cancer?

A tumor is either benign or malignant.



tumor A group of abnormal cells that form a mass



benign Not cancerous



malignant Cancerous

Allergies and Asthma

Types of Cancer

Skin cancer:

The **most common** kind of cancer, usually caused by exposure to sunlight.

Breast cancer:

Most often diagnosed in women **over 50**, but can also strike younger women as well as men.

Reproductive organ cancers:

Cancers that affect the testicles and **prostate** gland in men, and the ovaries, cervix, and **uterus** in women.

Lung cancer:

Closely tied to **smoking**; causes more cancer deaths in the United States than any other type of cancer.

Colon and rectal cancers:

Affect the **large intestine** and rectum; better screening tests and early detection have reduced the number of cases of these kinds of cancer.

Leukemia:

Causes cancerous white blood cells to multiply; these abnormal white blood cells interfere with the **immune response** of healthy white blood cells.

Lymphoma:

Cancer of the tissues in the **lymph system**; can weaken the immune system, leaving the body unable to fight infections.

Risk Factors and Causes of Cancer

Doctors have identified specific risk factors for certain types of cancer.

**risk factors**

Characteristics or behaviors that increase the likelihood of developing a medical disorder or disease

Risk factors can include inherited traits, age, behavior choices, and environmental factors.

Risk Factors and Causes of Cancer

Asbestos is an example of a carcinogen.



carcinogen A substance that can cause cancer

Asbestos was once used in construction and manufacturing. Breathing asbestos can cause lung cancer.

The American Cancer Society has identified about 90 chemicals as carcinogens for humans.

Allergies and Asthma

Reducing the Risk of Cancer

Eat well and
exercise.

Limit sun
exposure.

Perform
self-examinations

Know the seven
warning signs.

Reducing the Risk of Cancer

The Seven Warning Signs of Cancer

C**C**hange in bowel or bladder habits**A****A** sore that does not heal**U****U**nusual bleeding or discharge**T****T**hickening or lump in a breast or elsewhere**I****I**ndigestion or difficulty swallowing**O****O**bvious change in a wart or mole**N****N**agging cough or hoarseness

Reducing the Risk of Cancer

Check Your ABCs (Spots/Moles)



Asymmetry

One side looks different.



Border irregularity

Jagged or blurred edges.



Color

Not uniform or same throughout.



Diameter

Breater than 6 MM.
(Pencil eraser.)

Allergies and Asthma

Diagnosing Cancer

Methods of diagnosing cancer include the use of X rays and a biopsy.



biopsy The removal of a sample of the tissue from a person for examination

Allergies and Asthma

Treating Cancer

The most common treatments for cancer are:

- Surgery
- Radiation therapy
- Chemotherapy



radiation therapy A treatment using rays or other forms of radiation to kill cancer cells



chemotherapy The use of powerful medicines to destroy cancer cells

Communicable Disease:

Lesson 4

Diabetes & Arthritis

Allergies and Asthma

What Is Diabetes?

If unmanaged, diabetes can cause diseases such as kidney disorders, blindness, and heart disease.



diabetes A disease that prevents the body from converting food into energy

Allergies and Asthma

What Happens?

The body turns
food into glucose.
(sugar)



The body uses
glucose for energy.



Glucose enters
cells with the help
of **insulin**.



insulin A protein made in the pancreas that
regulates the level of glucose in the blood

Some people with diabetes
do not have enough insulin.

Some people with diabetes
have enough insulin, but it does
not do its job properly.

Types of Diabetes

Type 1 Diabetes

- Most often begins in childhood
- Researchers believe that the body's immune system attacks and kills the cells in the pancreases that make insulin
- Between 5 and 10 percent of people with diabetes have this type

Type 2 Diabetes

- Most often begins in adulthood, but it is occurring more and more in children and teens
- The body does not make enough insulin or the body's cells can't effectively use the insulin that is produced
- Closely linked to food choices, lack of physical activity, and being overweight

Managing Diabetes?

Healthful Eating Plan

People with diabetes must have an eating plan that helps keep blood glucose levels within a healthful range.

Weight Management

Regular physical activity helps people with diabetes maintain a healthy weight.

Insulin

People with type 1 diabetes and some people with type 2 diabetes receive insulin shots through a syringe or pump.

Medical Care

People with diabetes need to be under the care of a medical professional.

Allergies and Asthma

What Is Arthritis?

More than 40 million people in the United States have arthritis.



arthritis A disease of the joints marked by painful swelling and stiffness

Arthritis can strike children as well as adults.

Osteoarthritis

Osteoarthritis develops as a result of wear and tear on the joints, such as those on the knees and hips.



osteoarthritis A chronic disease that is common in older adults and results from a breakdown in cartilage in the joints

When cartilage in a joint wears down, the bones in the joints rub against each other.

Rheumatoid Arthritis

People develop rheumatoid arthritis when their immune systems attack healthy joint tissue.



rheumatoid arthritis A chronic disease characterized by pain, inflammation, swelling, and stiffness of the joints

Rheumatoid arthritis can affect any joint, including hands, elbows, shoulders, hips, and feet.

Allergies and Asthma**Juvenile Rheumatoid Arthritis (JRA)**

JRA appears most often in young people between the ages of **6 months** and **16 years**.

Many children with JRA continue to have arthritis into adulthood, but some children get better after puberty.

Managing Arthritis

Physical **activity**
and rest

Maintaining a
healthy **weight**

Joint
protection

Heat and cold
treatments

Medication

Massage

Surgery and
joint **replacement**