

Chronic Diseases and Disabilities



What are Chronic Diseases?

- ▶ A disease that persists for long period of time or throughout life.
- ▶ Usually caused by risk factors that are behavioral, environmental, or hereditary.
- ▶ NOT caused by pathogens.



Cardiovascular Diseases

- ▶ Cardio=Heart, Vascular=Blood Vessels
- ▶ Most common type of Chronic Disease which is a disease of the heart and blood vessels.
- ▶ Ex. Hypertension, Atherosclerosis, Heart Attack, Arrhythmia, Congestive Heart Failure, Stroke

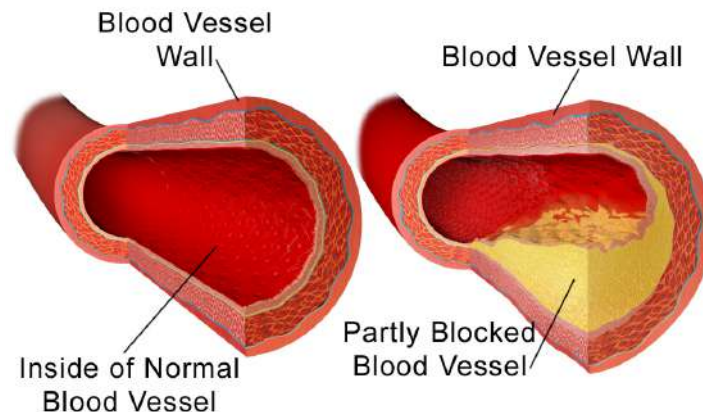


Hypertension

- ▶ High blood pressure is known as the “silent killer” because of no symptoms.
- ▶ A person whose blood pressure consistently measures 140/90 or higher.
- ▶ Over time, can lead to heart disease by putting a strain on the heart.
- ▶ 1/3 adults have hypertension.
- ▶ Ways to reduce hypertension:
 - ▶ Regular exercise
 - ▶ Healthy weight
 - ▶ Reduce stress
 - ▶ Low sodium diet

Atherosclerosis

- ▶ Disease where fatty substance, cholesterol, build up on artery walls.
- ▶ Causes artery walls to thicken and narrow causing harder blood flow.
- ▶ Risk factors include diet high in saturated fats, family history, smoking, diabetes, obesity, lack of exercise.
- ▶ Can cause Arteriosclerosis-hardening of arteries, or Coronary Heart Disease-decreased blood flow to the heart.



Normal and Partly Blocked Blood Vessel

Heart Attack

- ▶ Tissue in the heart doesn't receive normal blood supply and dies.
- ▶ Usually caused by a blood clot in coronary artery.
- ▶ Approximately 1 million people in U.S. per year, 500,000 die.
- ▶ Need immediate medical attention.
- ▶ Major risk factors:
 - ▶ High blood pressure
 - ▶ High cholesterol
 - ▶ Physical inactivity
 - ▶ Smoking

Warning Signs of Heart Attack

- ▶ Uncomfortable pressure/pain in center of chest lasting 2 minutes or longer.
- ▶ Pain spreading to the shoulder, neck, or arms.
- ▶ Severe pain
- ▶ Dizziness
- ▶ Fainting
- ▶ Sweating
- ▶ Extreme anxiety
- ▶ Nausea
- ▶ Shortness of breath



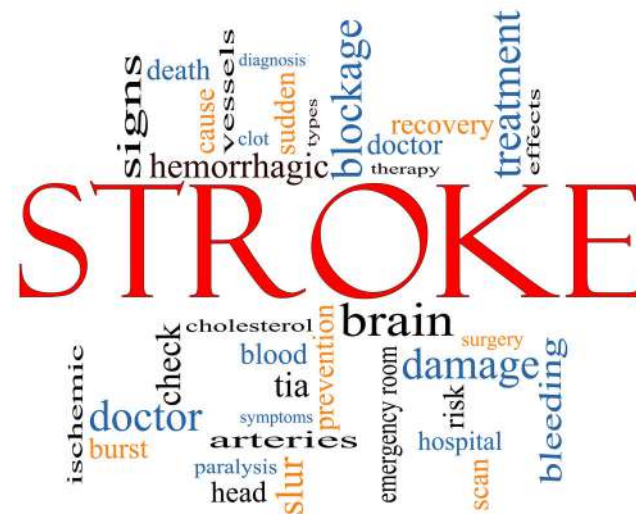
Arrhythmia and Congestive Heart Failure

- ▶ Arrhythmia- Irregular heartbeats that may beat too slowly, too quickly, or with uneven rhythm.
- ▶ Can be caused by heart attack or develop spontaneously.

- ▶ Congestive Heart Failure- condition where heart slowly weakens over time.
- ▶ The heart weakens due to years of atherosclerosis and high blood pressure.
- ▶ Symptoms include swelling of feet and lower legs.

Stroke

- ▶ Sudden disruption of blood flow to the brain caused by an artery blockage.
- ▶ Also caused by cerebral hemorrhage(bursting artery in cerebrum) or aneurysm(weak spot in artery that balloons).
- ▶ When blood supply is cut off, brain cells die quickly from lack of oxygen.
- ▶ More than 750,000 Americans suffer from a stroke each year.
- ▶ Risk factors include:
 - ▶ High blood pressure
 - ▶ High cholesterol
 - ▶ Smoking
 - ▶ Excessive alcohol consumption
 - ▶ Inactivity
 - ▶ Obesity



Warning Signs of Stroke

- ▶ Sudden, severe headache
- ▶ Sudden weakness/numbness of the face, arm, leg on one side of the body.
- ▶ Loss of speech, trouble talking, or trouble understanding speech.
- ▶ Sudden dimness or loss of vision, particularly in one eye.
- ▶ Unexplained dizziness, nausea, unsteadiness, or sudden falls.

**Stroke –
there's treatment if you act FAST.**



Effects of Stroke

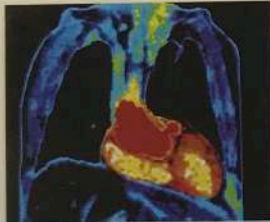
- ▶ Depends on location in the brain and severity.
- ▶ Senses
- ▶ Speech
- ▶ Comprehension
- ▶ Behavior
- ▶ Thought patterns
- ▶ Memory
- ▶ Paralysis to one side of the body
- ▶ Severe disability
- ▶ Death(over 1/3)

Testing and Treatment for Cardiovascular Disease

Testing Tools

Magnetic Resonance Imaging (MRI)

Magnetic energy is used to produce a clear image of the heart. Doctors can analyze the image for heart damage.



Electrocardiogram (ECG)

Electrodes attached to the skin detect the heart's electrical activity. Abnormalities in heart rhythm or other heart problems are revealed in the recorded pattern.



Echocardiogram

A device that generates sound waves is placed against the chest. The sound waves create a moving picture of the heart. A doctor can evaluate the heart's valves and chambers from the picture.

Arteriography

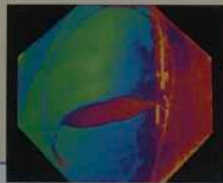
A flexible tube is threaded through an artery in an arm or leg until it reaches the heart. A dye is then released into the coronary arteries, and X-rays are taken. The X-rays can reveal blockages.



Treatment Methods

Balloon Angioplasty

A thin tube with an expandable tip is guided into a coronary artery. As the tip is inflated, it flattens fatty deposits in the artery wall, improving blood flow. Metal structures called stents are sometimes inserted to keep the artery open.



Coronary Bypass Surgery

Surgeons use a vein from the patient's leg or an artificial blood vessel to construct a detour around a blocked coronary artery. This procedure creates an alternate route for blood flow.

Artificial Pacemaker

An artificial pacemaker is a small, battery-operated device that is surgically implanted in the chest. It produces electrical impulses that regulate the heartbeat.



Heart Transplant

When a person's heart cannot function adequately, it may be replaced with a heart from an organ donor. This surgical procedure carries some risk because the immune system may reject the new heart. To lower rejection rates, doctors use drugs to suppress the immune system.

Preventing Cardiovascular Disease

▶ Make Healthy Choices!

▶ Cannot control:

- ▶ Heredity/Family History
- ▶ Ethnicity
- ▶ Gender
- ▶ Age

▶ Make Healthy Choices!

▶ CAN control:

- ▶ Maintain healthy weight
- ▶ Eat healthy diet
- ▶ Be physically active
- ▶ Manage stress
- ▶ Monitor blood pressure
- ▶ Avoid smoking/drinking

Activity

- ▶ With your row, choose a Cardiovascular Disease.
- ▶ Prepare a short skit, to act out a situation to include:
 - ▶ Warning signs
 - ▶ Event that occurred
 - ▶ Actions taken
 - ▶ How to treat it

