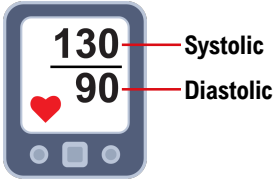


CONCEPT: MAJOR CARDIOVASCULAR DISEASES

- ◆ Cardiovascular diseases are the _____ cause of death in U.S.
- Major cardiovascular diseases (CVDs) covered:
 1. Hypertension, 2. Atherosclerosis, 3. Stroke and 4. Cardiomyopathy.

1. Hypertension

Cardiovascular Diseases		
Hypertension	Description	Symptoms
	<ul style="list-style-type: none">▸ _____ elevated <i>blood pressure</i>. <p>Blood pressure: force of the blood against the inside of artery walls.</p>	<ul style="list-style-type: none">▸ Damages blood vessels, leads to other CVDs. <div><div>■ Normal: < 120 / < _____</div><div>■ Elevated: 120-_____ / < 80</div><div>■ High: 130-_____ / 80- _____</div></div>

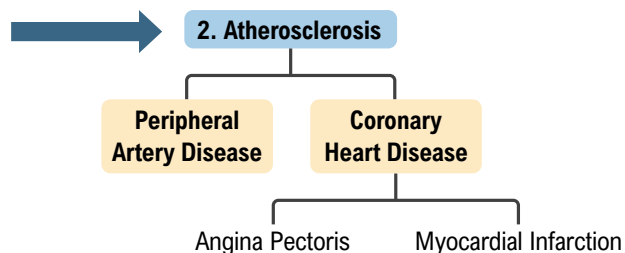
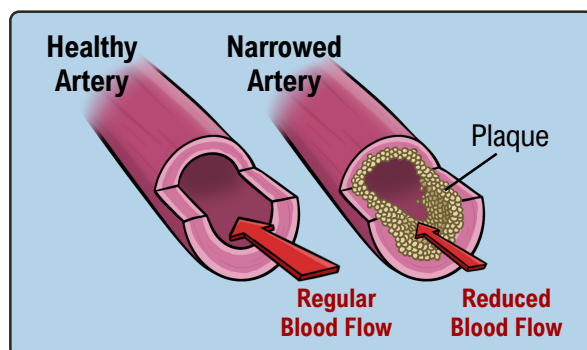
EXAMPLE

Hypertension is known as a silent killer because it often does not have obvious symptoms. Oliver has been told by his doctor to keep an eye on his blood pressure. His average blood pressure reading has been 124/90. This is classified as:

- a) Elevated b) Normal c) High d) Low

2. Atherosclerosis

- ◆ A condition in which arteries are narrowed and hardened by _____ deposits on the inner walls.
- Narrowed arteries restrict or block blood _____ and may even burst if weak enough.

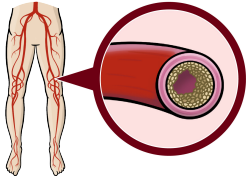
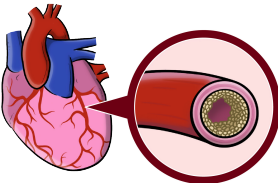


Plaque

Build up of fatty substances; cholesterol, calcium, cellular waste, etc.

CONCEPT: MAJOR CARDIOVASCULAR DISEASES

Types of Atherosclerosis

Cardiovascular Diseases		
Atherosclerosis	Description	Symptoms
Peripheral Artery Disease		
	<ul style="list-style-type: none">▸ Atherosclerosis in the arteries of _____.<ul style="list-style-type: none">- Legs and arms.	<ul style="list-style-type: none">▸ Cramping and aching in legs, feet, arms or hips.▸ Slow wound healing in affected limbs.▸ Tissue death leading to amputation.
Coronary Heart Disease (Coronary Artery Disease)		
	<ul style="list-style-type: none">▸ Atherosclerosis in the _____ arteries.<ul style="list-style-type: none">- Blood flow to the heart is reduced or blocked.▸ Most _____ CVD.	<ul style="list-style-type: none">▸ Angina pectoris - chest _____.▸ Myocardial infarction - heart _____.

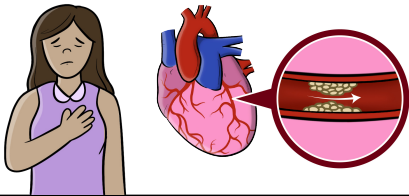
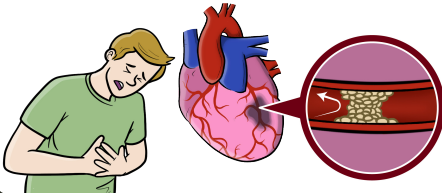
EXAMPLE

Which of the following statements about atherosclerosis is true?

- a) Arteries become more flexible due to cholesterol build up.
- b) Reduction of blood supply to the brain, leading to tissue damage can occur in peripheral artery disease.
- c) Peripheral artery disease is responsible for the highest number of deaths from CVDs.
- d) Reduction of oxygen supply to the heart, with potential of permanent damage occurs in coronary artery disease.

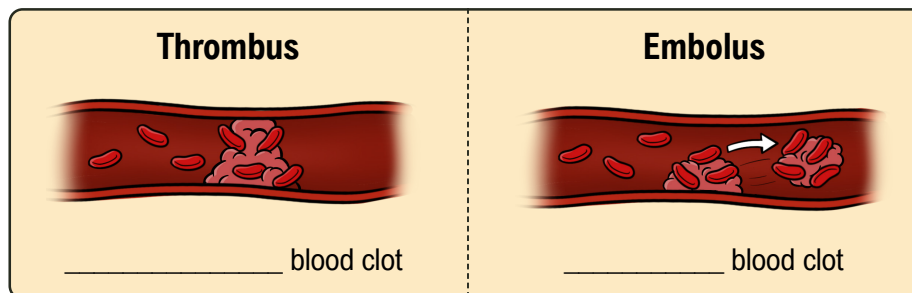
CONCEPT: MAJOR CARDIOVASCULAR DISEASES

Major Symptoms of Coronary Heart Disease

Cardiovascular Diseases		
	Description	Symptoms
Angina Pectoris 	<ul style="list-style-type: none">Occurs when an artery is _____ blocked.- Causes temporary discomfort.	<ul style="list-style-type: none">Shortness of breath.Heartburn.Tightness in chest.
Myocardial Infarction (Heart Attack) 	<ul style="list-style-type: none">Occurs when an artery is _____ blocked.- Causes permanent heart tissue death.	<ul style="list-style-type: none">Shortness of breath.Pain in chest, arm or jaw.Unconsciousness or death.

Major Symptoms of Coronary Heart Disease

- ◆ A full artery blockage may be caused either by plaque deposits or by coronary _____ (blood clot formation).



EXAMPLE

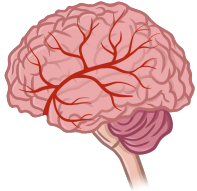
A 55-year-old man reports to his doctor that he experiences a tight, squeezing pain in his chest whenever he exerts himself, such as when going up the stairs. The pain goes away with rest. Which of the following conditions is the man most likely suffering from?

- a) Angina pectoris.
- b) Hypertension.
- c) Myocardial infarction.
- d) Peripheral artery disease.

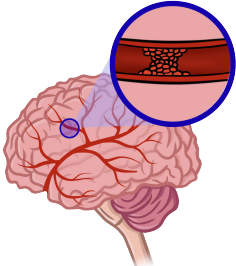
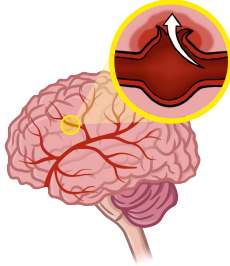
CONCEPT: MAJOR CARDIOVASCULAR DISEASES

3. Stroke

- ◆ Similar to heart attack, stroke occurs when blood flow to the _____ is blocked.

Cardiovascular Diseases		
Stroke	Description	Symptoms
(Cerebrovascular Accident) 	► Blood supply to the brain is interrupted resulting in brain tissue _____.	► Dizziness and weakness. ► Impairment in speech, memory loss. ► Walking disability, paralysis or death.

- ◆ There are ____ major types of strokes: Ischemic and Hemorrhagic.

 Ischemic ► _____ of blood vessel by <i>thrombus</i> or <i>embolus</i> .	 Hemorrhagic ► Rupture of blood vessel caused by an _____.
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Aneurysm

A bulge in the wall of a blood vessel that may lead to a rupture.

EXAMPLE

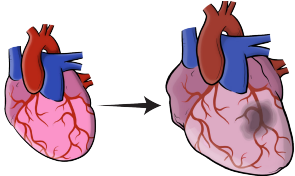
A 65-year-old woman is rushed to the emergency room with sudden right arm paralysis and difficulty understanding language. A CT scan showed a blockage in cerebral (brain) artery but no evidence of bleeding. Based on this information, which statement best differentiates the patient's condition from a hemorrhagic stroke?

- a) Hemorrhagic strokes typically are caused by embolus that travel to the brain, while ischemic strokes are caused by ruptured blood vessel in the brain.
- b) Ischemic strokes always cause loss of consciousness, while hemorrhagic do not.
- c) Hemorrhagic strokes never affect speech, while ischemic always do.
- d) Ischemic strokes are caused by a blood clot blocking a blood vessel, while hemorrhagic strokes by a vessel bursting and bleeding into and around the brain.

CONCEPT: MAJOR CARDIOVASCULAR DISEASES

4. Cardiomyopathy

- ◆ A condition caused by heart _____ tissue death and enlargement.
 - Heart unable to _____ blood effectively, causes *Congestive Heart Failure* (CHF).

Cardiovascular Diseases		
Cardiomyopathy	Description	Symptoms
Congestive Heart Failure		
	<ul style="list-style-type: none">▸ Fluids back up into the _____ and other tissues.	<ul style="list-style-type: none">▸ Swelling in legs, ankles and feet.▸ Shortness of breath and fatigue.▸ Progressively fatal if not treated.

EXAMPLE

Which of the following is false?

- a) Congestive heart failure is the most common disease of the cardiovascular system.
- b) Myocardial infarction causes permanent heart damage and can result in death.
- c) Cardiomyopathy is a disease of the heart muscle that often leads to edema of lower extremities and fatigue.
- d) Enlargement and weakening of heart chambers are a common cause of CHF.

PRACTICE

Obstruction of coronary artery with severe chest pain and tingling sensation in the arm is a condition called:

- a) Thrombus.
- b) Heart attack.
- c) Myocardial infraction.
- d) Cerebrovascular accident.
- e) Angina pectoris.