

BLOOD VESSELS/PULSE/
BLOOD PRESSURE/LYMPH
NOTES

Name: _____
Block: _____

BLOOD VESSELS

List the sequence of blood flow through the circulatory system

- 1.
- 2.
- 3.
- 4.
- 5.

List and describe the three layers of a blood vessel

- 1.
- 2.
- 3.

List several differences between arteries and veins:

Arteries

Veins

Describe a network of capillaries and what happens in them.

Vascular shunt –

True capillaries –

Sketch and label a capillary network, color arteries red, veins blue, and use arrows to indicate direction of blood flow.

Pulmonary circuit –

Systemic circuit –

PULSE

What is the pulse?

List several places on the body a pulse can be felt.

BLOOD PRESSURE

Blood pressure –

What happens to BP as the blood moves away from the heart?

List the flow of blood through the vessels from the heart and back

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Minimum blood pressure

Systole –

Diastole –

Blood pressure = Top # _____
 Bottom # _____

Normal BP range =

High BP ranges =

FACTORS AFFECTING BLOOD PRESSURE

1.

Example:

Example:

Example:

2.

3.

Heat:

Cold:

4.

5.

LYMPHATIC SYSTEM

Components

- 1.
- 2.
- 3.
- 4.

Functions

- 1.
- 2.
- 3.

Lymph –

What is it?

How is it formed?

Where does it go?

What can it accumulate?

What is edema?

How is it caused?

Lymph vessels

Function

Lymph nodes

Function

Sketch a lymph node and trace the path of lymph through it.

Lymphatic organs

Give the location and function of the following lymphatic organs

Spleen –

Thymus –

Tonsils –

Peyer's patches -

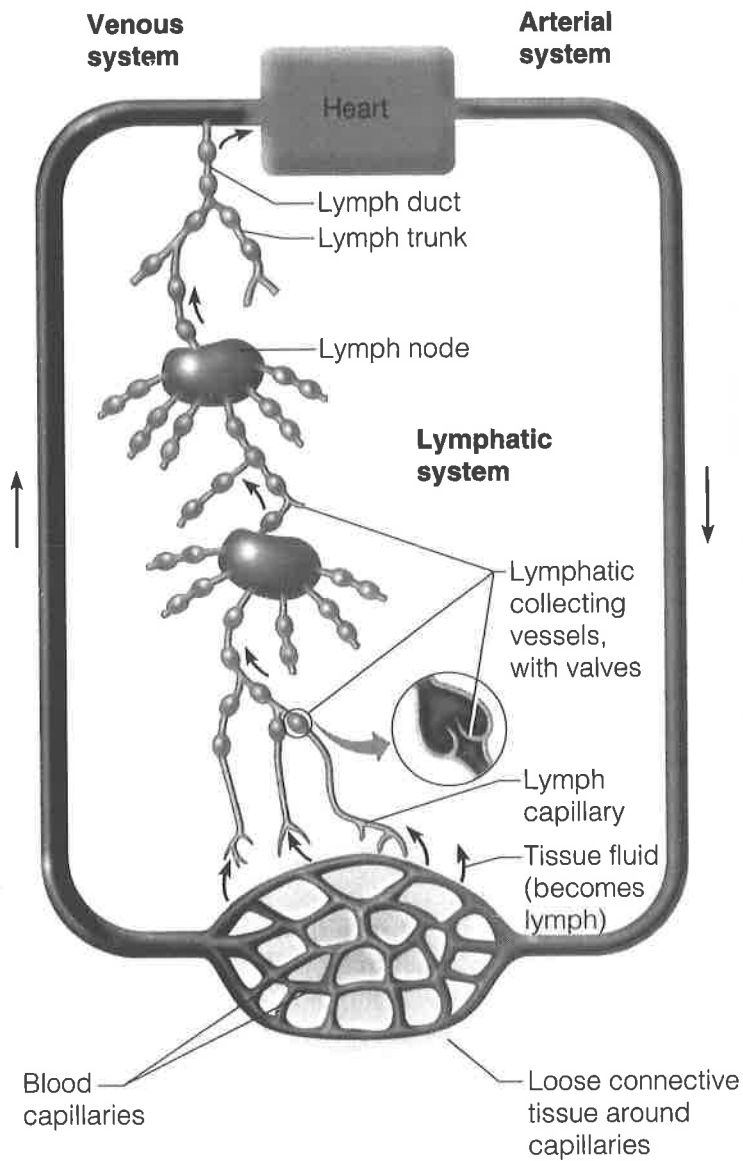


Figure 12.2 Relationship of the lymphatic vessels to the blood vessels of the cardiovascular circuit. Beginning at the bottom of this figure, we see that lymph, which begins as tissue fluid derived from blood capillaries, enters the lymph capillaries, travels through the lymphatic vessels and lymph nodes, and enters the bloodstream via the great veins at the root of the neck.

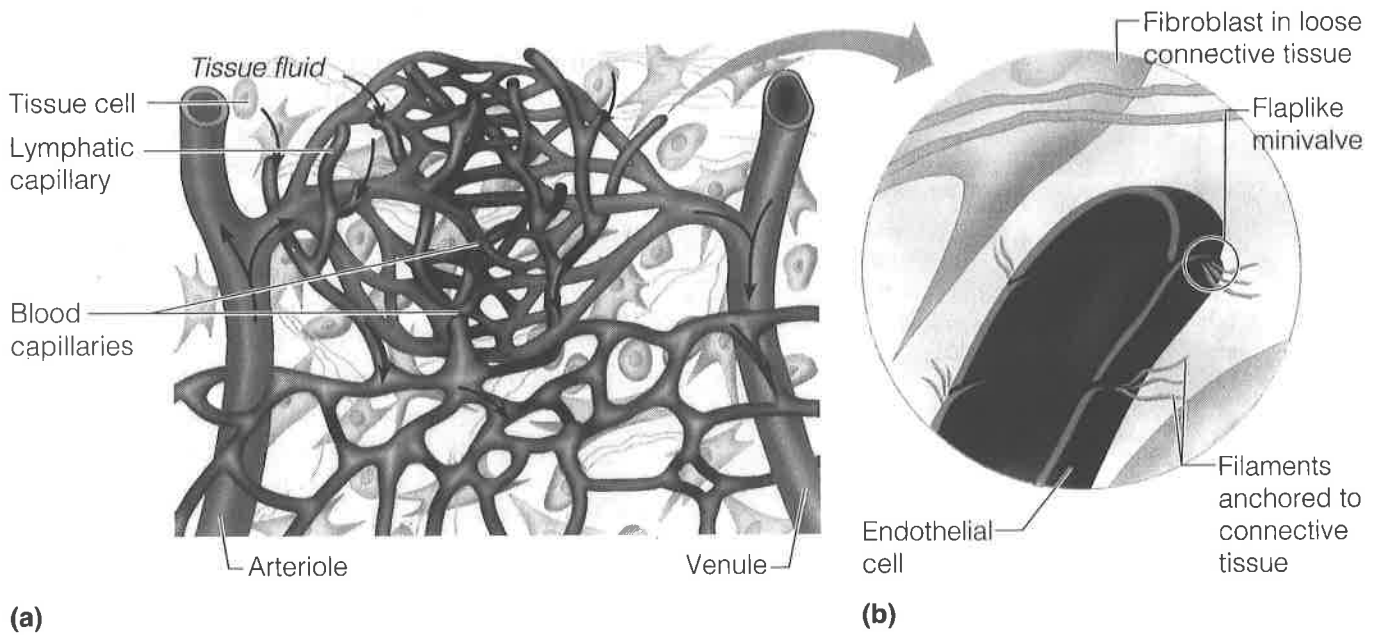


Figure 12.1 Distribution and special structural features of lymphatic capillaries. (a) Structural relationship between blood capillaries and lymph capillaries. Arrows indicate direction of fluid movement. (b) Lymph capillaries begin as blind-ended tubes. The endothelial cells forming their walls overlap one another, forming flaplike minivalves.

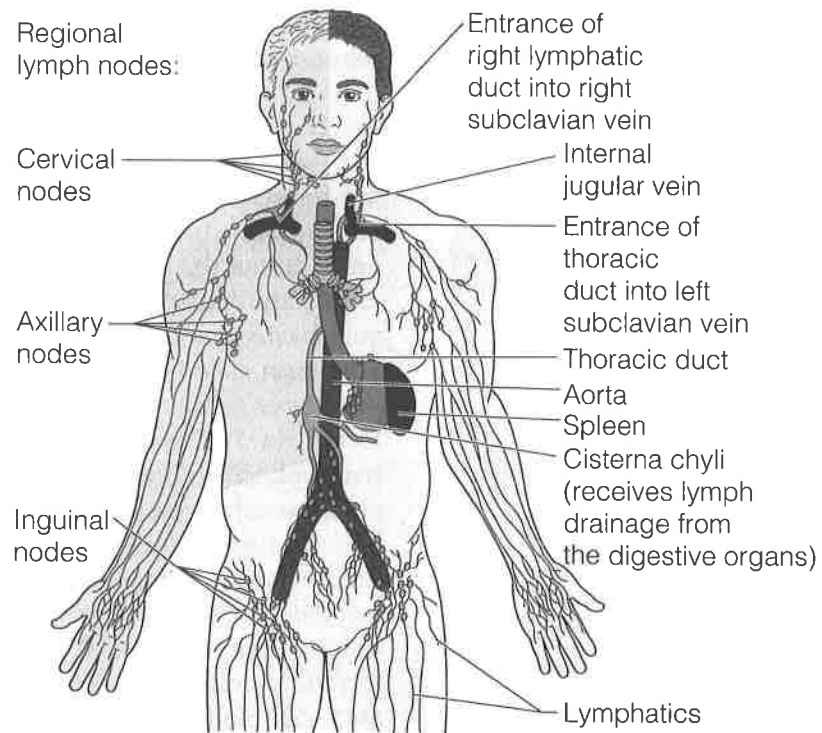


Figure 12.3 Distribution of lymphatic vessels and lymph nodes. Shading shows the body area drained by the right lymphatic duct; the rest of the body is drained by the thoracic duct.

BLOOD VESSEL AND BLOOD PRESSURE DISORDERS

Atherosclerosis – Hardening of the arteries, the formation of fatty lesions in the intimal lining in the arteries

Vasculitis – Inflammatory injury and necrosis of the blood vessel wall

Raynaud disease – Intense vasospasm of the arteries and arterioles in the fingers and sometimes the toes

Aneurysm – abnormal, localized dilation of a blood vessel

Berry – Small spherical dilation of a blood vessel at a bifurcation, usually cerebral

Fusiform – Involves the entire circumference of a blood vessel, characterized by gradual and progressive dilation of the vessel

Saccular – Extends over part of the circumference of a vessel, appears like a sac

Aortic dissection – False aneurysm resulting from a tear in the intimal layers of a vessel that allows blood to enter the vessel wall dissecting its layers to create a blood filled cavity

Essential hypertension – Chronic high blood pressure that occurs without evidence of other disease

Secondary hypertension – Elevated blood pressure that results from some other disorder

Varicose vein – Dilated and tortuous veins that result from a sustained increase in pressure that causes venous valves to become incompetent, allowing the reflux of blood and vein engorgement

Venous thrombosis – Presence of a thrombus in a vein and the accompanying inflammatory response in the vessel wall