

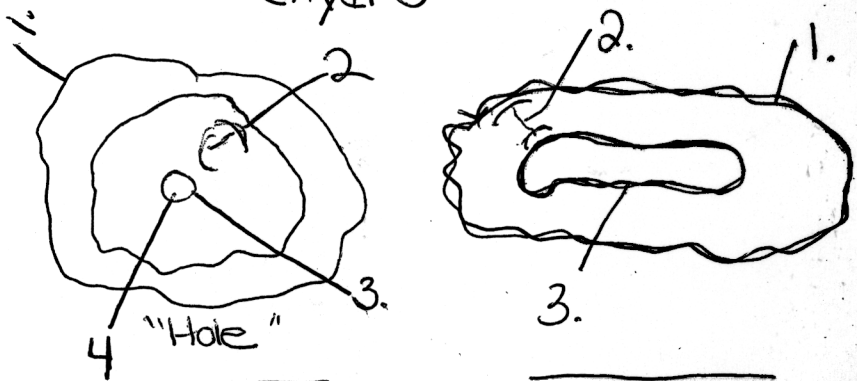
Capillaries

- 1. _____ layer
- 2. Function = _____
(Bed)
- 3. _____
- 4. Types A _____ B _____

A. greater
ON Arteriole

Chap. 21 Blood Vessels & Hemodynamics

Anatomy of Blood Vessel Layers



Veins

- 1. _____ 1 layer → 3 layer
- 2. Function = _____
- 3. 60% of blood = _____
- 4. Have _____ that prevent back flow
- 5. two pumps
 - a. _____
 - b. _____

Arteries

- 1. Function = _____
- 2. Have Thicker _____
- 3. _____ = "pressure reservoir"
- 4. _____ = VASO CONstriction
- 5. _____ = 3 → 1 layer

1. Venules

1. ONE

2. Empty into veins

2. gas & nutrient exchange

3. blood reservoir

3. Capillary Bed

4. valves

a. hydrostatic pressure / greater on Arterial side
b. Osmotic pressure / greater on Venule side

5. a. skeletal pump

b. respiration pump

forces blood to move around

4. a. continuous - tight junctions
b. fenestrated - pores good for filtration

5. arterioles

4. due to epinephrine + more epinephrine

3. lots of elastic fibers

2. tunica media

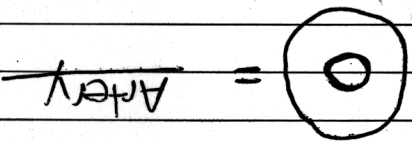
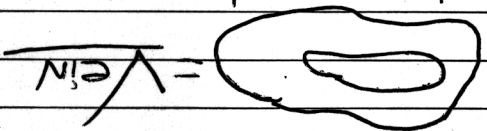
1. transports blood away from the heart.

4. lumen

3. tunica interna

2. tunica media

1. tunica externa



Hemodynamics

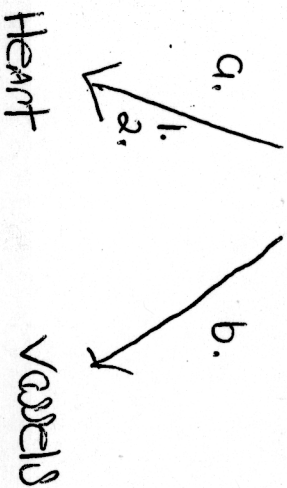
A. Velocity of blood flow related to —

B. Blood Pressure =

C. Resistance

- 1.
- 2.
- 3.

Control of Blood flow/Pressure
Medulla Oblongata
"Cardiovascular Center"



Reflex of Vessels/Heart Rate

1. receptor =

- 2. }
- 3. } FYO I
- 4. }

5. effectors

Circulatory Routes

(8)

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

* Sec Lab Copy

1. Coronary (Cardiac)
2. Pulmonary Circulation (Lungs)
3. Hepatic Portal System - from small intestine to liver.
4. Systemic - All over your body
 - ① Arteries
 - ② Veins

A. cross sectional area = rver concept

B. hydrostatic pressure on your blood vessel wall

C. Resistance

1. Blood viscosity - when # of formed elements increase, will cause increase in viscosity; resistance
2. Blood vessel length - the longer the vessels the more the resistance.
3. blood vessel radius - the smaller your diameter, the more resistance

1. Cardiovascular

A. Vagus

1. Sympathetic - speeds up
2. Parasympathetic - slows down

B. Vasoconstrictor nerve - causing vasoconstriction

1. Reflex =

baroreceptor - monitor pressure in blood vessels
 chemoreceptor - monitor CO_2 , O_2
 proprioceptors - muscles

5. Effector - heart or vessels