Circulation Review

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Blood and Circulatory System Review

1. Blood

- a. Know basic facts about blood
 - What type of tissue is blood? Why is it important to the human body? What's the average pH? How much is in males and females? Etc.
- b. Know what blood is made of:
 - i. What percent is plasma, cells (RBC, WBC), and platelets?
 - ii. What is plasma made of? What is its function?
 - iii. What type of cell is a erythrocyte? What is its function?
 - iv. What are the different types of leukocytes? What are their different functions?
 - v. What are platelets made of? What is their function?
 - Explain the basic formation of a blood clot/scab
- c. Know the functions of blood
 - i. Transportation, Protection, Regulation
 - ii. Know what gases are exchanged in blood and where the exchanges occur
- d. Know what determines a person's blood type?
 - i. What antigens are present for which blood types?
 - ii. What antibodies are present in which blood types?
- e. Know how to determine a successful blood transfusion
 - For each blood type, know the possible blood types that they can donate to or receive blood from
 - ii. Know which of the 8 blood types is the universal donor and the universal receiver
 - iii. EXAMPLES:
 - i. Who can donate to A-?
 - 1) A = a antigen B antibody
 - 2) cannot receive from positive
 - 3) Cannot receive from B or AB, or any positive
 - 4) Donors are: A-, O-

2. Blood Vessels

- a. Know the differences between the 3 types of vessels
- b. Know the direction of blood flow, usual type of blood that is transported, and relative size of arteries, capillaries, and veins.
- c. Know the different characteristics of the 3 types of vessels
- d. Be able to put in order the following vessels: arteries, veins, capillaries, arterioles, and venules
- e. Know the difference between vasoconstriction and vasodilation, and what each one means to blood flow.

3. The heart

- a. Know the composition and general function of the heart
- b. Know the 4 chambers of the heart
 - Know what type of blood they hold (oxygenated or deoxygenated)
 - i. Know where they pump blood to (chamber, vessel, body part)

- ii. Know the valves that they pump blood through
- c. Know the 2 different types of valves in the heart, and the names of all 4 valves

4. Circulation Control

- a. Know the basic feedback loop that controls heartbeats.
- Know what diastole and systole periods are
- Know what makes the sounds of a heartbeat (lub dub)
- Know what electrical signals cause a heart to beat
 - b. ECG
- Know what an ECG is
- Know what each section of an ECG represents
- Know what abnormal ECGs look like (ie: tachycardia, bradycardia, arrhythmia)