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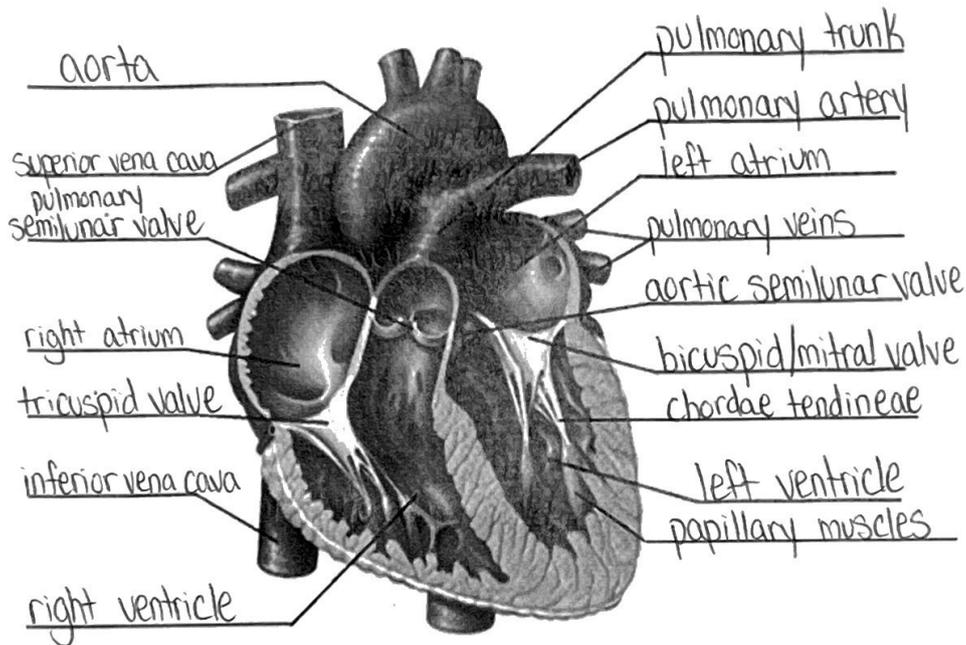
Normal Adult Heart

1. Label the structures of the heart:

Structure of the Heart

Use the word bank to label the parts of the heart.

The Human Heart



Right Atrium	Right Ventricle	Inferior Vena Cava
Tricuspid Valve	Bicuspid/Mitral Valve	Pulmonary Veins
Left Atrium	Aortic Semilunar Valve	Pulmonary Trunk
Pulmonary Semilunar Valve	Aorta	Chordae Tendineae
Left Ventricle	Pulmonary Artery	
Papillary Muscles	Superior Vena Cava	

2. Write the blood flow through the heart:

Unxygenated blood enters the heart through the superior and inferior vena cava → blood enters the right atrium → blood is squeezed through the tricuspid valve → blood enters the right ventricle → blood is squeezed through the pulmonic valve → blood is moved through the pulmonary artery and then enters the lungs for oxygen → blood enters from the lungs through the pulmonary vein → blood then enters the left atrium → blood moves through the bicuspid/mitral valve → blood enters the left ventricle → blood moves through the aortic valve → blood is moved up to the aorta and pumped throughout the body

Obstructive Defect Questions

3. What does obstructive mean?
anatomic narrowing of blood vessel exiting the heart
4. Where is the defect with an atrial septal defect? (Between which two structures?)
between the right and left atriums
5. Where is the defect with a ventricular septal defect? (Between which two structures?)
between the right and left ventricles
6. In fetal circulation, what is the ductus arteriosus? What is its purpose?
↳ A shunt between the pulmonary artery and the aorta
↳ Sends the oxygen-poor blood to the organs in the lower half of the fetal body to leave through the
7. What does the term coarctation mean? umbilical arteries and pick up oxygen from the placenta
narrowed aorta
8. What does the term stenosis mean?
narrowing
9. If there is an issue with the aorta or aortic valve being narrow, which ventricle would have to work harder? Where would blood back up?
left ventricle works harder, blood backs up in lungs/left atrium
10. If there is an issue with the pulmonic valve being narrow, which ventricle would have to work harder? Where would blood back up?
right ventricle works harder, blood backs up right atrium

Cyanotic Defects

11. If blood cannot get to the lungs, what happens?
acute episodes of cyanosis and hypoxia
12. What does the prefix "Tetra-" mean?
Four
13. What are the defects associated with Tetralogy of Fallot?
 - Pulmonary Stenosis
 - Overriding Aorta
 - Right Ventricular Hypertrophy
 - Ventricular Septal Defect
14. What does atresia mean?
does not have a normal opening, or lacks the ability to allow material to pass through it
15. How would you describe tricuspid atresia to a parent of a small child?
"Tricuspid atresia is a congenital (present at birth) heart defect that occurs when the tricuspid valve does not form properly, resulting in restricted blood flow and therefore not enough oxygen getting carried thoroughly throughout the body. The blood cannot flow through the heart and to the lungs properly without the valve."

Mixed Defects

16. If a baby has transposition of the great vessels, the aorta is abnormally attached to the right ventricle, and the pulmonary artery is abnormally attached to the left ventricle.
17. If the pulmonary veins do not attach to the left atrium, what type of defect would be helpful in allowing blood to get into the left atrium?
Atrial septal defect
18. What is the large base of a tree called before it reaches the branches?
Trunk
19. What does hypoplastic mean?
Incomplete or underdevelopment of an organ or tissue, usually having a below average number of cells

Medication Questions

20. What is an adult cardiac medication we can give to increase the heart contractility, decrease heart rate, and increase cardiac output?
Digoxin (Lanoxin)
21. What electrolyte makes the previous medication work more effectively, easily leading to toxicity?
Potassium (K^+)
22. What does an ACE Inhibitor do? (Hint, there are multiple things!)
• Blocks vasoconstriction
• Promotes vasodilation (decreases pulmonary and systemic vascular resistance, decrease BP, reduces afterload)
• Blocks aldosterone secretion (decreases fluid retention, decrease preload)
23. What electrolyte do you need to check before administering Furosemide?
Potassium (K^+)
24. What electrolyte do you need to check before administering Aldactone?
Potassium (K^+)