

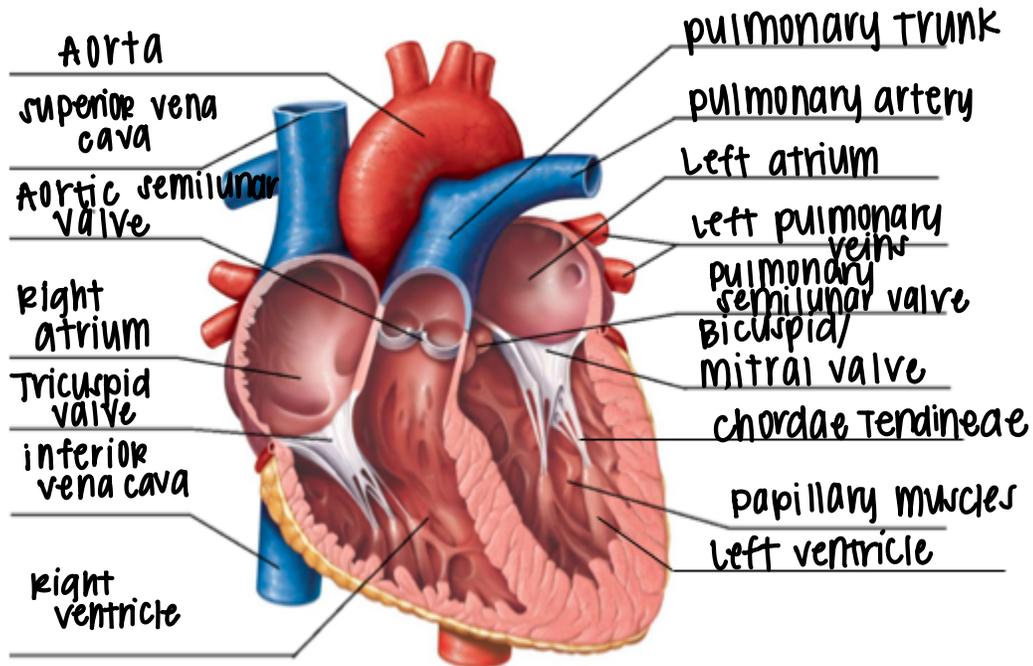
Normal Adult Heart

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:

UNoxygenated blood enters the heart through the superior & inferior vena cava. Blood enters into the right atrium then squeezed through the tricuspid valve. Blood enters the right ventricle then squeezed into the pulmonary valve and through the pulmonary artery and enters the lungs for oxygen. After getting O₂ from the lungs, the blood travels back to the heart through the pulmonary veins into the left atrium, to the left ventricle and out to the body's tissues through the aorta.

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?)
opening between atria (right atrium and aortic valve)
5. Where is the defect with a ventricular septal defect? (Between which two structures?)
opening between ventricles (right and left ventricles) → mixing blood into the pulmonary artery (oxygenated & un-oxygenated)
6. In fetal circulation, what is the ductus arteriosus? What is its purpose?
normal blood vessel that connects the aorta & pulmonary vein - they carry blood away from the heart
7. What does the term coarctation mean?
A stricture or narrowing especially of a canal or vessel
8. What does the term stenosis mean?
Abnormal narrowing of a passage in the body
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?
The left ventricle would have to work harder
The blood would back up into the lungs.
10. If there is an issue with the pulmonic valve being narrow, which ventricle would have to work harder? Where would blood back up?
The right ventricle would have to work harder
The blood would back up into the right ventricle

Cyanotic Defects

11. If blood cannot get to the lungs, what happens?
hypoxemia leading to hypoxia
12. What does the prefix "Tetra-" mean?
4
13. What are the defects associated with Tetralogy of Fallot?
- ventricular septal defect
- overriding aorta
- pulmonary stenosis
14. What does atresia mean? - right ventricular hypertrophy
Absence or abnormal narrowing of an opening or passage way in the body
15. How would you describe tricuspid atresia to a parent of a small child?
A birth defect of the heart where the valve that controls blood flow from the right upper chamber of the heart doesn't form at all.

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?
underdevelopment or incomplete development of a tissue or organ

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
21. What electrolyte makes the previous medication work more effectively, easily leading to toxicity?
POTASSIUM
22. What does an ACE Inhibitor do? (Hint, there are multiple things!)
**helps relax the veins & arteries to lower BP
improves blood flow to the heart**
23. What electrolyte do you need to check before administering Furosemide?
POTASSIUM
24. What electrolyte do you need to check before administering Aldactone?
potassium