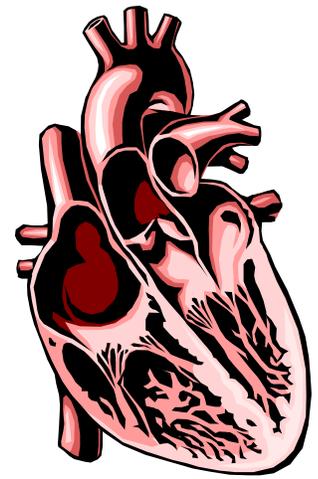


Year 12 – Revision Questions on the Heart



1. Describe the location and general features of the heart.
2. Trace the flow of blood through the heart, identifying the major blood vessels, chambers, and heart valves.
3. How do arteries and veins differ?
4. Identify the layers of the heart wall.
5. What are the names of the valves of the heart and where are they located? What is their function?
6. Place the following structures in order relative to the conduction system in the heart: AV node, Bundle of His, SA node. Which of these serves as the "pacemaker" of the heart?
7. Distinguish between the roles of the S-A node and the A-V node.
8. Describe and explain the normal ECG pattern.
9. During what part of the cardiac cycle does ventricular filling occur? Know what a normal ECG looks like and know what this waves, etc. represent. (P wave etc)
10. Discuss how the nervous system regulates the cardiac cycle
11. What are the two main factors that affect blood flow?
12. What are the two main factors that affect blood pressure?
13. Distinguish between systolic and diastolic blood pressures.
14. Explain the events of the cardiac cycle, including atrial and ventricular systole and diastole, and relate the heart sounds to specific events in this cycle.
15. What are some of the mechanisms that affect blood pressure?
16. What are the differences between the systemic and pulmonary circulatory systems? (think pressures)



17. What effects do the sympathetic nerves have on the rate and contractility of the heart? What effects do the parasympathetic nerves (vagus) have on the cardiovascular system?
18. Define stroke volume and cardiac output
19. What factors define cardiac output (which is about 5 litres/minute)?
20. How does heart rate influence the work of the heart?
21. Explain how adjustments in stroke volume and cardiac output are coordinated at different levels of activity.
22. Describe the cardiac changes in that occur when a person exercises. Explain why and how the heart rate increases with exercise.