

AP2, Exam 1 - Vocabulary & Study Questions for Blood and Cardiovascular

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| RBCs / erythrocytes | How does an erythrocytes acquire its biconcave shape? |
| biconcave | What are the advantages of this shape? |
| formed elements | |
| WBCs / leukocytes | Explain the role of hemoglobin in the transport of oxygen and carbon dioxide. |
| Platelets | |
| Hemoglobin | Name various types of anemias based on cause. |
| heme | |
| globin | |
| cyanosis | Explain the underlying cause of sickle cell anemia. |
| oxygenated | When is the sickling most likely to occur? |
| deoxygenated | |
| anemia | Explain the sequence of events in erythropoiesis. |
| hypoxia | |
| ischemia | |
| infarction | Explain how the rate of erythropoiesis is regulated to achieve homeostasis. |
| hemocytoblast | |
| reticulocytes & reticulocyte count | |
| EPO /erythropoietin | Why do RBCs tend to live only about 120 days? |
| Procrit / epoietin | |
| jaundice / bilirubinemia | What happens to RBCs as they age / die? |
| polycythemia | |
| hemostasis | Explain the recycling of the RBC components. |
| vascular spasm | |
| platelet plug | Explain several possible causes of jaundice. |
| coagulation | |
| collagen | State several possible causes of polycythemia. |
| vasoconstriction vs vasodilation | |
| serotonin | Explain the 3 steps of coagulation |
| thromboxane A ₂ | |
| ADP | Explain the process of fibrinolysis. |
| PFBM | |
| prothrombin activator | Explain how undesirable (unnecessary) clots are usually prevented from forming. |
| procoagulants | |
| prothrombin | |
| thrombin | How does aspirin have it's anticoagulant effect? |
| fibrinogen | |
| clot retraction | What are the clinical applications of heparin and warfarin? |
| fibrinolysis | |
| clotting factors | |
| plasmin | Explainthe connection between a DVT and a pulmonary embolism. |
| TPA | |

endothelial cells
anticoagulants
antithrombin III
heparin
prostacyclin
vitamin E
warfarin (Coumadin)
thromboembolytic
thrombus
embolus / embolism
DVT
atherosclerosis
arteriosclerosis
plaque
hemophilia
cirrhosis
hepatitis
thrombocytopenia

RMP
depolarization
threshold
action potential
repolarization
contractile fibers
autorhythmic fibers
intercalated discs
contractility
slow calcium channels
SR
sinus rhythm
pacemaker
cardiac cycle
systole
diastole
EDV & ESV
Cardiac Output
SV
Preload
Frank-Starling Law of the Heart
Afterload
CHF
peripheral edema

pulmonary edema

In what ways are cardiac contractile fibers similar to skeletal muscle fibers?

In what ways are cardiac contractile fibers different from skeletal muscle fibers?

Explain the mechanism and events of contraction of cardiac contractile fibers.

Explain why autorhythmic cells are autorhythmic.

Explain the sequence of events in a single cardiac cycle. What's happening to pressures in the chambers and when are the heart valves opening and closing?

Calculate an average person's CO at a resting HR of 75 and then again at an exercising HR of 170.

If a your R pump is weaker than your L pump where will you develop edema? And if your L is weaker than you R?

Explain how your autonomic nervous system regulates HR.

Explain how HR is affected by hormones and ions.