

## Human Anatomy & Physiology Midterm III Review Questions

Midterm III will cover: blood, cardiovascular, lymphatic, immune, & respiratory systems.

1. Name the major functions of blood
2. What are formed elements?
3. Where does blood come from?
4. What do the different leukocytes do?
5. What is diapedesis?
6. Why does blood type matter?
7. How does clotting occur?
8. How is blood production controlled?
9. What are the tunica that make up vessels? What are their functions?
10. What are the 3 classes of arteries and how do their structures and functions relate?
11. How is blood flow moderated through capillary beds?
12. What functional advantage do anastomoses give to tissues?
13. Why is an arterial blockage that halves the diameter of the vessel such a problem?
14. Using the "formula" given in class, calculate some relative differences in flow for vessels of different diameters.
15. What is a potential problem with standing perfectly still for extended periods of time?
16. Compare and contrast short and long-term responses to changes in blood pressure
17. What events do the letters P, Q, R, S, & T in an EKG correspond to?
18. What events do the heart sounds "lub" and "dup" correspond to?
19. How does an unstable resting potential make some heart cells autorhythmic?
20. What neural nodes and structures enable the heart to beat in a coordinated manner?
21. How is the heartbeat controlled?
22. What happens to circulation during the transition from being in utero to being born?
23. What are the major functions of the lymphatic system?
24. What happens in lymph nodes?
25. What structural elements of the lymphatic are considered "MALT"?
26. What structural elements make up the 1st line of defense? 2nd line?
27. What is special about the 3rd line?
28. What is an antigen?
29. What are antibodies? What do they do?
30. How does clonal selection work?
31. What property of the immune system do vaccines utilize?
32. Where do antibodies come from?
33. What do T-cells do? B-cells?
34. What is MHC I? MHC II? What does MHC do?
35. Why have a nose?
36. What do conchae do?
37. Why is lung compliance so important? What factors can reduce it?
38. Define vital capacity.
39. What structural, functional, & physical variables affect gas exchange?
40. What is the Bohr Effect?
41. What elements control respiration? Which variable is most important in control?
42. **Article (in box outside my door):**  
**"Frank MacFarlane Burnet and How Animals Make Antibodies" What did Frank Macfarlane Burnet do? How did his ideas about immunity differ from previous ones?**