

## The Lymphatic System and Immunity

### Study Guide for the Lymphatic System (C21)

1. What is lymph?
2. > What are the three main functions of the lymphatic system?
3. > What are the difference between lymphatic capillaries and blood capillaries?
4. > How much fluid is lost across the capillary bed? How is this fluid returned to the systemic circuit? What does this fluid pass through before it returns to the systemic circuit?
5. What structures are part of the lymphatic system?
6. > What is the structure and function of a lymph node?
7. > What are the primary lymphatic organs?
8. > What are the secondary lymphatic organs?
9. > What is a lacteal? Where are they located? Function?
10. What is the structure and function of the thymus gland?
11. What is the largest lymphatic organ?
12. > What is the structure and function of the spleen? What is the red and white pulp of the spleen?
13. What types of functions take place in the spleen?
14. Can you surgically repair the spleen after an accident?
15. > What is the structure and function of a lymphatic nodule?
16. What is MALT? BALM?

17. > Describe the anatomy of a lymphatic capillary in relationship to the systemic capillary bed and surrounding cells. a) How would you describe the endothelium at the beginning of a lymphatic vessel? b) What do we mean when we say that the lymphatic endothelium function as a trap door? c) Why doesn't the lymphatic capillary collapse?
18. > Do lymphatic vessels have valves?
19. Trace the route of lymph from the tissue fluid back to the blood: What type of "stuff" can enter into the lymph vessels?
20. What is a Peyer Patch and where are they found?
21. Study the anatomy of a lymph node. Look at the number of afferent VS efferent lymphatic vessels. Explain how this relationship helps the function of the lymph nodes.
22. What happens in the lymph node's germinal center?
23. How would you characterize a node that contains either a bacterial pathogen VS cancer cells?
24. > What is the structure and function of the tonsils? What is the significance of tonsillar crypts?