

*With **Spring Break** looming and still needing to cover some of Chp 10 we are going to move through this chapter (Chp. 14) independently & take a small **Chapter Test (35 - 40 pts)** after Spring Break on **Thursday April 16**. I suggest you work on this a bit over Break (cuz who'd want to go a week without Anatomy??)*

Objectives

After studying this chapter you should be able to:

- Describe the general functions of the lymphatic system.
- Describe the location of the major lymphatic pathways.
- Explain how lymph is formed and its function.
- Explain how lymph is circulated.
- Describe the lymph node and its major functions.
- Discuss the functions of the thymus & spleen.
- Distinguish between specific & nonspecific body defenses & give examples.
- Explain how the 2 major types of lymphocytes are formed & how they function in immune mechanisms.
- Name the major immunoglobins – discuss their action & origin.
- Distinguish between primary & secondary responses.
- Distinguish between active & passive immunity.

Study Questions

1. How is the lymphatic system related to the CV system that we just finished with?
2. What is **lymph**? (caution: don't just use bold term, also look under "Tissue Fluid & Lymph" on pg 369. What are the 3 major functions of the **lymphatic system**? of lymph?
3. Where are (& what are the functions of) the **lymph nodes**?
What are the major functions of the lymph nodes?
4. Distinguish between lymphatic *capillaries, vessels, trunks & ducts*.
Know the location & function of the **thoracic & r. lymphatic ducts**.
5. Know how **hydrostatic pressure** relates to the formation of lymph. Sec. 14.3
(Don't confuse this osmotic pressure & tissue fluid formation)
6. How does lymph move through the body? What makes it go? What prevents its backflow? (Sec. 14.4)
7. What is **edema**? What causes it?

8. Know the location & function of the *spleen & thymus*.
9. What is a *pathogen* (& give examples)? *antigen*? What role do *haptens* play (pg 375)? Define *immunity*.
10. Know the general difference between *specific & nonspecific* defenses.
11. Explain the **6 nonspecific defense mechanisms**. This is a big question (see pg 373-4)
12. Review *antigens* (remember these in Blood Chap). Review the origin of **T & B cells**.
13. Explain the *cellular immune (cell mediated) response*.
14. Explain the role of *plasma cells* as they relate to the production of antibodies.
15. Explain the *humoral immune (antibody mediated) response*. Explain the role of *helper T* cells & *cytotoxic T* cells in destroying antigen bearing cells.
16. Describe how **T cells** become activated. What is the function of *memory cells*? Explain their role in you never getting the “same cold” twice.
How do **B cells** become activated? What are *supressor cell's role*?
17. List the **different types of immunoglobulins (antibodies)** & what they do.
18. What is the function of *complement*?
19. Distinguish between a *primary & secondary immune response* (notice *memory cells* appear here too).
20. Distinguish between *active & passive immunity*. Review what a *vaccine* is & how it produces its effect.
21. Distinguish between: *naturally acquired active immunity, artificially acquired active immunity, artificially acquired passive immunity, naturally acquired passive immunity* (all on pg 381).
22. What is an *allergic reaction* (response)? How are antigens & *allergens* related?
23. What is **tissue rejection**? How is it related to an immune response?
24. How is **autoimmunity** an abnormal functioning of the immune response?

Only diagrams to know for the test are 14.4 A (p. 368) & Fig 14.8 (pg. 371)