Chapter 7: Leukocytes
Learning Objectives

At the end of this unit, the student should be able to:

1. Define myelopoiesis.
2. List the function of mature leukocytes.
3. List the three lines of granulocytes.
4. List the stages of differentiation and maturation of granulocytes.
5. Describe the changes in cytoplasm, nucleus and cell size that occur in the maturation of the myelocytic series.
6. Name the three cytokines that regulate neutrophil production.
7. Discuss granulocytic maturation, including a description of the general characteristics of each maturation stage.
8. Describe general characteristics of the following tissue cells: mast cell, and tissue basophil.
9. Describe the function of:
   a. Neutrophils
   b. Eosinophils
   c. Basophils
   d. Monocytes
   e. Macrophages
10. Define monopoiesis.
11. Discuss monocytic maturation, including a description of the general characteristics of each maturation stage.
12. List 4 alternative names for macrophages.
13. List the sites of lymphocytic production, proliferation and maturation.
14. List the 3 subpopulations of lymphocytes and state their functions.
15. Characterize primary and secondary lymphoid tissue.
16. Define antibody and antigen.
17. Discuss lymphocytic maturation, including a description of the general characteristics of each maturation stage.
18. Differentiate between large lymphocytes and monocytes.
19. Describe variant lymphs and list general characteristics.
20. List other terms used to describe variant lymphs.

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21. Describe plasma cells and state their function.
22. List 2 variant forms of plasma cells.
23. State the reference range for white blood cells for the adult population.
24. List the percentages of circulating white blood cells in the peripheral blood.