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Human Biology Study Guide - Exam II

BIOLOGY OF HUMANS, fifth edition
Goodenough and McGuire

Chapter 15 – Learning Objectives

- What are the components of the digestive system?
- What is the major function of each organ?
- What are the accessory organs, and their functions?
- How does digestion take place at the molecular level?
- How are nutrients absorbed into the digestive system?
- Why is the liver so important?
- Describe any digestive disorders that were discussed in class: what are they, what causes them, and what is the significance of each?
- What are macronutrients and micronutrients? What is the general composition of each in a healthy diet?
- Describe the significance of any nutritional issues that were discussed in class.

Pay special attention to Figures 1, 2, 6, 7, 8, 10, 11, 13; Tables 1, 2, 3

Chapter 11 –Learning Objectives

- What are the functions of blood?
- What are components of blood?
- What basic function of erythrocytes, leukocytes, and platelets?
- How is blood cell production regulated?
- What is the structure and significance of hemoglobin?
- What is the molecular basis of the ABO blood groups?
- What is the Rh factor, and how might it complicate a pregnancy?

Pay special attention to Figures 1, 2, 4, 5, 6, 7; Tables 1, 2

Chapter 12 – Learning Objectives

- What are the components of the cardiovascular system?
- Describe each type of blood vessel in terms of size, composition, and direction of blood flow.
- Contrast how is blood moved through the arterial and venous systems.
- What is blood pressure, and how is it measured? What are typical blood pressure readings?
- Describe the basic structure of the heart, including chambers, valves, and blood flow.
- What is the purpose heart valves?
- How is the heartbeat controlled?
- Describe any cardiovascular disorders that were discussed in class: what are they, what causes them, and what is the significance of each?

Pay special attention to Figures 1, 2, 3, 6, 7, 8, 9, 12, 17

Chapter 14 – Learning Objectives

- What is the function of the respiratory system?
- What are components of the respiratory system?
- What are four types of respiration? (see p. 269)
- Describe the mechanics of breathing, including the anatomical structures involved and pressure changes that drive the movement of air.
- Describe any respiratory disorders that were discussed in class: what are they, what causes them, and what is the significance of each?

Pay special attention to Figures 1, 2, 3, 8, 9, 10, 11; Table 1