LEARNING OBJECTIVES

- Understand the term Anatomy and Physiology and its various related areas
- Construct and define medical terms using word roots, prefixes, and suffixes
- Explain the concept and importance of homeostasis
ANSWERS TO TEST YOUR KNOWLEDGE

Test Your Knowledge 1–1 Answers, p. 4
1. G
2. M
3. M
4. G
5. M

Test Your Knowledge 1–2 Answers, p. 8
1. Acrocyanosis: blue extremities (condition of blue extremities)
2. Nephrologist: one who studies the kidneys
3. Cytomegaly: enlarged cells
4. Dermatitis: skin inflammation
5. Appendectomy: removal of the appendix
6. Removal of the stomach: gastrectomy
7. Disease of the bones: osteopathy
8. Electrical recording of the heart: electrocardiogram or EKG or ECG
9. Inflammation of the joints: arthritis
10. One who studies the nervous system: neurologist

Test Your Knowledge 1–3 Answers, p. 13
1. a. vital sign  
b. not a vital sign  
c. vital sign  
d. not a vital sign  
e. not a vital sign  
f. vital sign  
g. vital sign
2. c
3. a
4. b

ANSWERS TO THE CASE STUDY, P. 16
a. Where exactly in the hospital was the patient taken? To the intensive care unit
b. Describe the patient’s color, heart rate, and breathing. Patient’s extremities are bluish, his heart rate is fast, and he is having shortness of breath.
c. What is the medical term for what the x-ray is showing? Cardiomegaly
d. What future facial surgery will he need? A nose job or rhinoplasty.

ANSWERS FOR REVIEW QUESTIONS, P. 16

Multiple Choice
1. c, 2. b, 3. b, 4. b, 5. d, 6. b, 7. c

Fill in the Blank
1. arthroscope
2. Anatomy; physiology
3. liver; enlarged
4. vital
5. positive feedback (vicious cycle)

Short Answer
1. A diagnosis is the process of pinpointing the underlying cause of symptoms and signs, whereas a prognosis is the predicted outcome of the disease.
2. A phagocyte is a cell that ingests bacteria, viruses, and cellular debris. (Literally, a swallowing cell.)
3. Negative feedback is a process in which the body attempts to reverse any change in physiology, bringing the variable back to “normal.” Positive feedback is a vicious cycle. Positive feedback enhances a change in physiology, usually making the situation worse.
4. There are many examples of homeostasis in the body. All physiological variables are controlled by homeostasis, including blood pressure, blood pH, blood sugar, body temperature, and hormone levels, to name a few. All are regulated by negative feedback. For example, if blood pressure falls below normal levels, your body increases the heart rate and causes vasoconstriction. Increased heart rate and vasoconstriction increase blood pressure back toward normal. On the other hand, if blood pressure rises, the heart rate will decrease, and vasodilation will occur, decreasing blood pressure.
5. Jose has broken his leg. His symptoms may include pain, swelling, bruising, and decreased range of motion. The etiology is excessive mechanical forces that caused bone damage. His prognosis is that he will recover after rest and treatment. Treatment is immobilization for several weeks, rest, and perhaps surgery, depending on the severity of the break.