

Chapter 1: Introduction to Human Anatomy and Physiology

I. Introduction

- A. The interests of our earliest ancestors most likely concerned _____

- B. Primitive people certainly suffered from _____
- C. Before agriculture, infectious diseases did not spread easily because _____

- D. With agriculture, humans became susceptible to worm diseases because _____

- E. With urbanization, humans became more susceptible to _____
and _____
- F. Tooth decay was lowest among _____
and highest among _____
- G. Preserved bones from children can reflect malnutrition because _____

- H. At first healers had to rely on _____

- I. The forerunners of modern drugs were _____
- J. Early medical providers developed the language of anatomy and physiology from _____

II. Anatomy and Physiology

- A. Anatomy is _____
- B. Physiology is _____
- C. Anatomists rely on _____
- D. Physiologists rely on _____
- E. Anatomy and Physiology are difficult to separate because _____

- F. The anatomy of the hand, which is _____
_____, allows it to grasp objects.

- G. The structure of the heart includes _____
which allows it to propel blood into blood vessels.
- H. The heart valves ensure _____
- I. The shape of the mouth allows it _____
- J. Teeth can function to break solid foods because _____
- K. A recent anatomical discovery is _____
- L. A recent physiological discovery is _____
- M. Researchers have recently sequenced _____
which will help explain anatomy and physiology at the _____
and _____ levels.

III. Levels of Organization

- A. All materials are made of _____
- B. Chemicals consist of tiny particles called _____
- C. Examples of atoms are _____
- D. When atoms chemically bond together they form _____
- E. Examples of molecules are _____
- F. When small molecules chemically combine they form _____
- G. Examples of macromolecules are _____
- H. Within humans, the basic unit of structure is _____
- I. Cells are made of small structures called _____
- J. Organelles are made of _____
- K. Examples of organelles are _____
- L. Examples of cells are _____
- M. Tissues are formed from _____
- N. Examples of tissues are _____
- O. Organs are formed from _____
- P. Examples of organs are _____
- Q. Organ systems are formed from _____
- R. Examples of organ systems include _____
- S. Organisms are formed from _____
- T. The organism studied in this class is the _____

IV. Characteristics of Life

- A. Movement is _____
- B. Responsiveness is _____
- C. Growth is _____
- D. Reproduction is _____
- E. Respiration is _____
- F. Digestion is _____
- G. Absorption is _____
- H. Circulation is _____
- I. Assimilation is _____
- J. Excretion is _____
- K. Metabolism is _____

V. Maintenance of Life

A. Requirements of Organisms

1. The five requirements of life are _____, _____, _____, _____, and _____
2. The most abundant substance in the body is _____
3. Four major uses of water by the body are _____

4. Substances that provide organisms with nutrients are called _____
5. Nutrients supply _____
6. One-fifth of air is _____
7. The body uses oxygen _____
8. A form of energy used by the body is _____
9. Heat helps to regulate _____
10. The application of force on an object is _____
11. Atmospheric pressure is _____
12. For humans, atmospheric pressure plays an important role in _____
13. Hydrostatic pressure is _____
14. A type of hydrostatic pressure in the human is _____

B. Homeostasis

1. The internal environment of the body consists of _____

2. Homeostasis is _____
3. Homeostatic mechanisms are _____
4. The three components of a homeostatic mechanism are _____

5. Receptors provide _____
6. Control centers function to _____
7. Effectors cause _____
8. In a negative feedback mechanism, a deviation from the set point is _____
and the correction _____

VI. Organization of the Human Body

A. Body Cavities

1. The human body can be divided into an _____
portion and an _____ portion.
2. The axial portion includes _____
3. The appendicular portion includes _____
4. Within the axial portion, the three major cavities are _____

5. The cranial cavity houses _____
6. The vertebral canal houses the _____.
7. Viscera are _____
8. The thoracic cavity is divided from the abdominopelvic cavity by the _____

9. The thoracic cavity contains the following organs: _____

10. The region between the lungs is the _____
11. Organs located in the mediastinum are _____

12. The two portions of the abdominopelvic cavity are _____

13. The organs of the abdominal cavity are _____

14. Organs of the pelvic cavity are _____

15. The four types of smaller cavities in the head are _____

B. Thoracic and Abdominopelvic Membranes

1. Serous membranes are located _____

2. The serous membrane that lines the thoracic cavity is the _____

3. The serous membrane that covers the lungs is the _____

4. The pleural cavity is _____

5. The serous membrane that covers the heart's surface is the _____

6. The visceral pericardium is separated by serous fluid from the _____

7. The space between the pericardial membranes is the _____

8. The serous membrane that lines the abdominopelvic wall is the _____

9. The serous membrane that covers each abdominal organ is the _____

10. The peritoneal cavity is _____

C. Organ Systems

1. Introduction

a. The eleven organ systems of the human body are _____

b. Each organ system includes a set of _____

2. Body Covering

- a. The organs of the integumentary system are _____
 - b. The major functions of the integumentary system are _____
-

3. Support and Movement

- a. The organs of the skeletal system are _____
 - b. The major functions of the skeletal system are _____
-
- c. The organs of the muscular system are _____
 - d. The major functions of the muscular system are _____
-

4. Integration and Coordination

- a. The organs of the nervous system are _____
 - b. The major functions of the nervous system are _____
-
- c. The organs of the endocrine system are _____
 - d. The major functions of the endocrine system are _____
-

5. Transport

- a. The organs of the cardiovascular system are _____
 - b. The major functions of the cardiovascular system are _____
-
- c. The organs of the lymphatic system are _____
 - d. The major functions of the lymphatic system are _____
-

6. Absorption and Excretion

- a. The organs of the digestive system are _____
 - b. The major functions of the digestive system are _____
-
- c. The organs of the respiratory system are _____

d. The major functions of the respiratory system are _____

e. The organs of the urinary system are _____

f. The major functions of the urinary system are _____

7. Reproduction

a. The organs of the female reproductive system are _____

b. The organs of the male reproductive system are _____

c. The major functions of the reproductive system are _____

VII. Life Span Changes

A. In the thirties, signs of aging include _____

B. In the forties and fifties, signs of aging include _____

C. In the sixties, signs of aging include _____

D. Wrinkles are produced because _____

E. Elderly people metabolize drugs at different rates than younger people because _____

F. Alzheimer disease may be caused by _____

VIII. Anatomical Terminology

A. Relative Position

1. The position of the body in the anatomical position is _____

2. The anatomical term meaning above another body part is _____

3. The anatomical term meaning below another body part is _____

4. The anatomical term meaning toward the front is _____

5. The two anatomical terms meaning toward the back are _____
and _____

6. The two anatomical terms meaning closer to the midline of the body are _____
and _____

7. The anatomical term meaning closer to the sides of the body is _____

8. The anatomical term for the same side is _____

9. The anatomical term for the opposite side is _____
10. The anatomical term meaning closer to a specific point is _____
11. The anatomical term meaning farther away from a specific point is _____
12. The two anatomical terms meaning closer to the surface of the body are _____ and _____
13. The anatomical term meaning more internal is _____

B. Body Sections

1. A lengthwise cut that divides the body into left and right portions is called _____

2. A cut that divides the body into superior and inferior portions is called _____

3. A section that divides the body into anterior and posterior portions is called _____

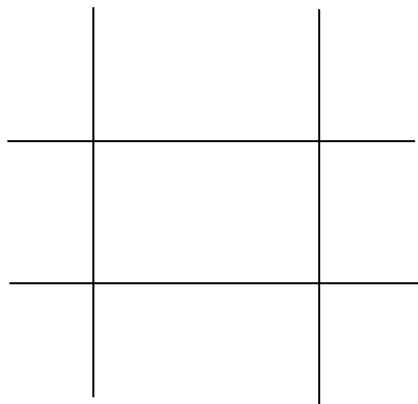
4. A cut across a cylindrical organ is called _____
5. An angular cut of a cylindrical organ is called _____
6. A lengthwise cut of a cylindrical organ is called _____

C. Body Regions

1. Label the nine abdominal regions on the diagram below:

Right

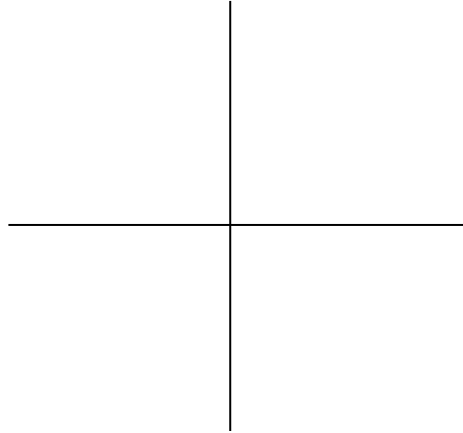
Left



2. Label the four quadrants of the abdomen on the diagram below:

Right

Left



3. Give the correct anatomical term for the following body regions:

region between thorax and pelvis _____

point of the shoulder _____

forearm _____

space in front of the elbow _____

armpit _____

arm _____

cheek _____

wrist _____

abdomen _____

head _____

neck _____

ribs _____

hip _____

leg _____

elbow _____

finger _____

back _____

thigh _____
forehead _____
reproductive organs _____
buttocks _____
depressed area of the abdominal wall near the thigh _____
lower back between ribs and pelvis _____
breast _____
chin _____
nose _____
lower posterior region of head _____
mouth _____
eye cavity _____
ear _____
palm of hand _____
front of knee _____
chest _____
foot _____
pelvis _____
region between anus and external reproductive organs _____
sole of the foot _____
area behind the knee _____
posterior region between the hipbones _____
middle and anterior region of thorax _____
instep of foot _____
navel _____
spinal column _____