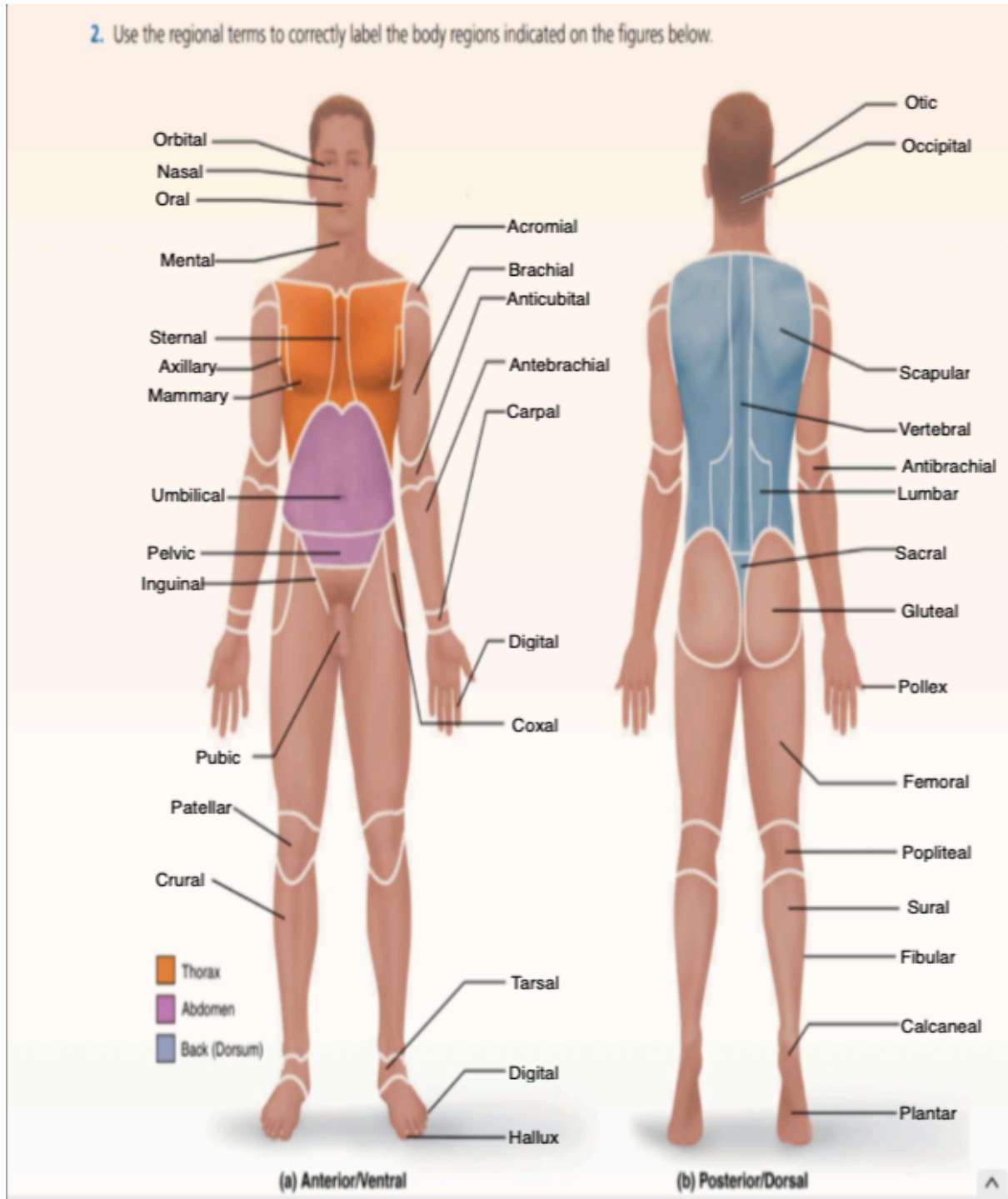


Chapter 1 Review Questions

1. Describe completely the standard human anatomical position.

- In an anatomical position, the human body is upright with feet slightly apart from each other. The human head and toes are pointed forward and arms are hanging at the sides with palms facing forward. It is also important to know that when saying “left” and “right” is referring to the side of the individual, not the observer.

2.



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3. Define *plane*.

- When a section is made through the body wall or through an organ, it is made along an imaginary surface called a plane. There are three planes: median (midsagittal), frontal (coronal), and transverse plane.

4. Several incomplete statements appear below. Correctly complete each statement by choosing the appropriate anatomical term from the choices. Use each term only once.

1. The thoracic cavity is **superior** to the abdominopelvic cavity.
2. The trachea (windpipe) is **anterior** to the vertebral column.
3. The wrist is **proximal** to the hand.
4. If an incision cuts the heart into left and right parts, a **medial** plane of section was used.
5. The nose is **medial** to the cheekbones.
6. The thumb is **lateral** to the ring finger.
7. The vertebral cavity is **sagittal** to the cranial cavity.
8. The knee is **distal** to the thigh.
9. The plane that separates the head from the neck is the **transverse** plane.
10. The popliteal region is **posterior** to the patellar region.
11. The plane that separates the anterior body surface from the posterior body surface is the **frontal**.

5. Correctly identify each of the body planes by writing the appropriate term on the answer line below the drawing.

- a) Frontal (coronal) plane
- b) Medial (midsagittal) plane
- c) Transverse plane

6. Name the muscle that subdivides the ventral body cavity.

-The diaphragm separates the thoracic and abdominal cavities of the ventral body cavity.

7. Which body cavity provides the least protection to its internal structures?

-Abdominopelvic cavity

8. For the body cavities listed, name one organ located in each cavity.

1. Cranial cavity: **skull and brain**
2. Vertebral cavity: **spinal cord**
3. Thoracic cavity: **heart and lungs**
4. Abdominal cavity: **stomach, intestines, and liver**
5. Pelvic cavity: **reproductive organs, bladder, and rectum**
6. Mediastinum: **pericardium**

9. Name the abdominopelvic region where each of the listed organs is located.

1. Spleen: **left hypochondriac region**
2. Urinary bladder: **pubic (hypogastric region)**

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3. Stomach (largest portion): **umbilical region**
4. Cecum: **right inguinal (ilac) region**

10. Explain how serous membranes protect organs from infection.

-These membranes help protect organs from infection by producing a thin lubricating fluid that allows the organs to slide over one another or rub against the body wall with minimal damage. It keeps it safe from one another when an infection occurs.

11. Which serous membrane(s) is/are found in the thoracic cavity?

-Pleura

12. Which serous membrane(s) is/are found in the abdominopelvic cavity?

-Peritoneum

13.

1. Holds the eyes in an anterior-facing position: **orbital cavity**
2. Houses three tiny bones involved in hearing: **middle ear cavity**
3. Contained within the nose: **nasal cavity**
4. Contains the tongue: **oral cavity**
5. Surrounds a joint: **synovial cavity**

14. Name the body region that blood is usually drawn from.

-Antecubital

15. A patient has been diagnosed with appendicitis. Use anatomical terminology to describe the location of the person's pain. Assume that the pain is referred to the surface of the body above the organ.

-Right inguinal region

16. Which body cavity would be opened to perform a hysterectomy?

-Abdominopelvic cavity

17. Which smaller body cavity would be opened to perform a total knee joint replacement?

-Synovial joint cavity

18. An abdominal hernia results when weakened muscles allow the protrusion of abdominal structures. In the case of an umbilical hernia, parts of a serous membrane and the small intestine form the bulge. Which serous membrane is involved?

-Peritoneum