

Study Guide: The Human Body – An Orientation

1. Define **Anatomy**: study of structure and shape of the body
2. Describe a **Physiological Study**: study of function
3. List the **levels of organization** from simplest to most complex.
Chemical → cellular → tissue → organ → organ system → organism
(atoms, molecules)
4. List the **11 body systems**. Give a general description of each.
5. List the **9 life functions**. Which 2 separate living organisms from non-living objects?
Interrelationships among species, Maintenance of boundaries, Movement, Excretion, Digestion, Responsiveness, Metabolism, **Reproduction, & Growth**.
6. List the **5 survival needs** for humans. Briefly explain each.
Nutrients, Oxygen, Water, Maintenance of Body Temperature, and Correct Atmospheric Pressure
7. Define **homeostasis**: The ability to maintain a stable internal environment even though the external world is constantly changing.
Diagram the homeostatic loop (feedback loop). Label the **5 parts** and define each.
8. What is the difference between a **negative feedback loop** and a **positive feedback loop**? Give an example of each.
Negative Loop= the response decreases or shuts down the stimulus (blood glucose)
Positive Loop- the response increases the stimulus (labor contractions, blood clotting)
9. Define **Correct Anatomical Position**:
Standing erect with feet together, arms at sides, palms facing forward.
(Think in terms of pairs.)
10. List the 5 pairs of **directional terms**. Be able to use them correctly.

11. Be able to label the human body **regional terms**.

12. **Body Planes**

The transverse plane divides the body into superior and inferior.

The median, midsagittal(sagittal) plane divides the body into left and right.

The frontal, coronal plane divides the body into anterior and posterior.

13. List the 2 main **body cavities**. What organs are found in each?

Dorsal-brain, spinal cord (cranial cavity & spinal or vertebral cavity)

Ventral-everything else

14. How are the **parietal** and **visceral membranes** and the **serous fluid** they produce connected to the body cavities mentioned above? **double walled sac**

Each cavity has a *parietal membrane that lines the cavity* and a *visceral membrane that covers each organ* found within that cavity.

Both secrete serous fluid for lubrication. Both are called serous membranes.

15. Draw a crosshairs to represent the **4 body quadrants** and list the landmark organs found within each of them.