

BIOS251 WK 4 CASE STUDY

Introduction recap:

While the cell is often called the basic functional unit of life, tissues take things a step further. A tissue is a group of similar cells working together to perform specific functions. Through their collaborative efforts, tissues are essential for maintaining the structure and function of the human body.

The study of tissues is called histology, and it provides the foundation for understanding how the body operates. Despite the complexity of the human body, all tissues fall into four primary categories. You can remember them using the acronym **C-MEN**:

- **C:** Connective tissue
- **M:** Muscle tissue
- **E:** Epithelial tissue
- **N:** Nervous tissue

Here's an overview of the four types of tissues and their primary functions:

- **Epithelial Tissue:**
 - Covers and lines body surfaces and cavities
 - Forms glands
 - Acts as a barrier and interface with the environment (e.g., skin, digestive lining)
- **Connective Tissue:**
 - Provides support, protection, and structure to other tissues
 - Includes diverse subtypes such as blood, bone, and fat
 - Serves as the body's framework
- **Muscle Tissue:**
 - Enables body movement and the movement of substances like blood or food
 - Composed of contractile cells
 - Includes three subtypes: skeletal, smooth, and cardiac muscle
- **Nervous Tissue:**
 - Conducts electrical impulses to transmit and process information
 - Controls and coordinates body activities