



4

Skin and Body Membranes

Body membranes, which cover body surfaces, line its cavities, and form protective sheets around organs, fall into two major categories. These are epithelial membranes (skin epidermis, mucosae, and serosae) and the connective tissue synovial membranes.

Topics for review in this chapter include a comparison of structure and function of various membranes, anatomical characteristics of the skin (composed of the connective tissue dermis and the epidermis) and its derivatives, and the manner in which the skin responds to both internal and external stimuli to protect the body.

CLASSIFICATION OF BODY MEMBRANES

1. Complete the following table relating to body membranes. Enter your responses in the areas left blank.

Membrane	Tissue type (epithelial/connective)	Common locations	Functions
Mucous			
Serosus			
Cutaneous			
Synovial			

2. Four simplified diagrams are shown in Figure 4-1. Select different colors for the membranes listed below, and use them to color the coding circles and the corresponding structures.

- Cutaneous membrane
- Mucosae
- Visceral pleura (serosa)
- Parietal pleura (serosa)
- Parietal pericardium (serosa)
- Visceral pericardium (serosa)
- Synovial membrane

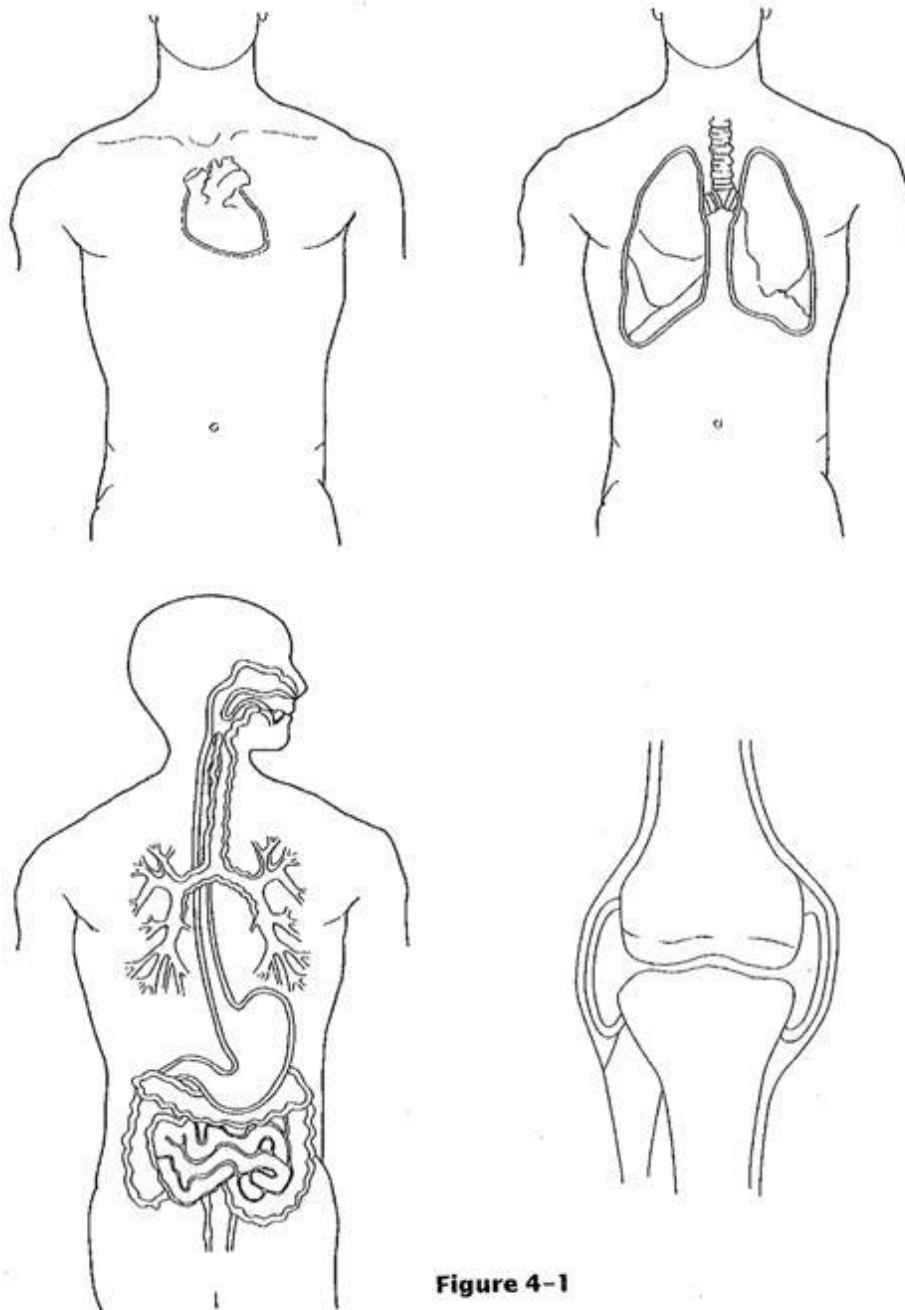


Figure 4-1

INTEGUMENTARY SYSTEM (SKIN)

Basic Structure and Function

3. Figure 4-2 depicts a longitudinal section of the skin. Label the skin structures and areas indicated by leader lines and brackets on the figure. Select different colors for the structures below and color the coding circles and the corresponding structures on the figure.

- Arrector pili muscle
- Adipose tissue
- Hair follicle
- Nerve fibers
- Sweat (sudoriferous) gland
- Sebaceous gland

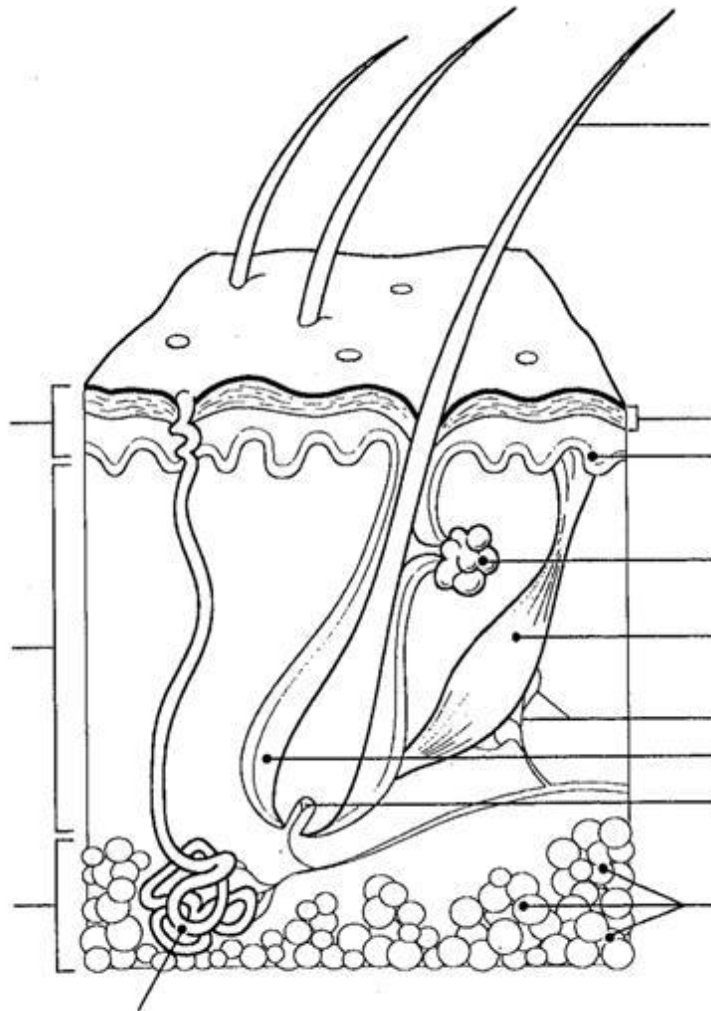


Figure 4-2

4. The more superficial cells of the epidermis become less viable and ultimately die. What two factors account for this natural demise of the epidermal cells?

1. _____
2. _____