

Hypodermis — also called the subdermis

The integumentary system consists of the skin and its many derivatives (*hair, glands, nails, and sensory receptors*). The skin is composed of many tissues structurally joined for specific functions.

Structure of skin:

- The outer **epidermis**: which consists of stratified squamous epithelium. It develops from embryonic ectoderm. The outer **epidermis** is avascular. The principal cell of the epidermis is called a **keratinocyte**.
- The inner **dermis**: thicker portion of the skin; composed of connective tissue with collagenous and elastic fibers for toughness. The inner dermis develops from embryonic mesoderm and contains blood vessels, nerves, glands, and hair follicles. It is a strong, stretchable layer that essentially holds the body together. The inner dermis has two main regions:
 - **papillary layer**: upper dermal region
 - **reticular layer**: deepest skin layer

*** The **subdermis** (*hypodermis*) is the layer of tissue directly underneath the dermis. The subdermis is mainly composed of areolar (*loose*) connective tissue and adipose tissue. The subdermis's physiological functions include insulation, the storage of energy, and aid in the anchoring of the skin. The subdermis also cushions the underlying body for extra protection against trauma.

The skin also contains several other relevant structures, including the following:

- **Basement membrane**: collagenous membrane between the epidermis and dermis that holds them together
- **Meissner's corpuscle**: oval body in the dermis, thought to participate in tactile sensation
- **Ruffini's corpuscle**: oval capsule containing the ends of sensory fibers in the dermal papillae