

HISTOLOGY OF THE INTEGUMENTARY SYSTEM

LAYER	SUB-LAYER / COMPONENT	TISSUE TYPE & KEY CHARACTERISTICS
Epidermis (Stratified Squamous)	Stratum Corneum	Dead, flattened keratinocytes; no nuclei; water-resistant.
	Stratum Lucidum	Clear, thin layer found only in thick skin (palms/soles).
	Stratum Granulosum	3-5 layers; keratinocytes produce keratohyalin granules.
	Stratum Spinosum	Several layers; desmosomes provide strength; contains Langerhans cells.
	Stratum Basale	Single layer of cuboidal/columnar stem cells; melanocytes; Merkel cells.
Dermis (Connective Tissue)	Papillary Layer	Areolar connective tissue; dermal papillae; Meissner's corpuscles.
	Reticular Layer	Dense irregular connective tissue; collagen/elastin; Pacinian corpuscles.

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Hypodermis	Subcutaneous Layer	Adipose and areolar tissue; anchors skin to fascia; thermal insulation.
Appendages	Hair Follicle	Invagination of epidermis; medulla, cortex, and cuticle layers.
	Sebaceous Gland	Holocrine secretion; simple branched alveolar; produces sebum.
	Sweat Glands	Eccrine (merocrine) and Apocrine; simple coiled tubular.

Reference Template & Histology Reference Chart & Integumentary System