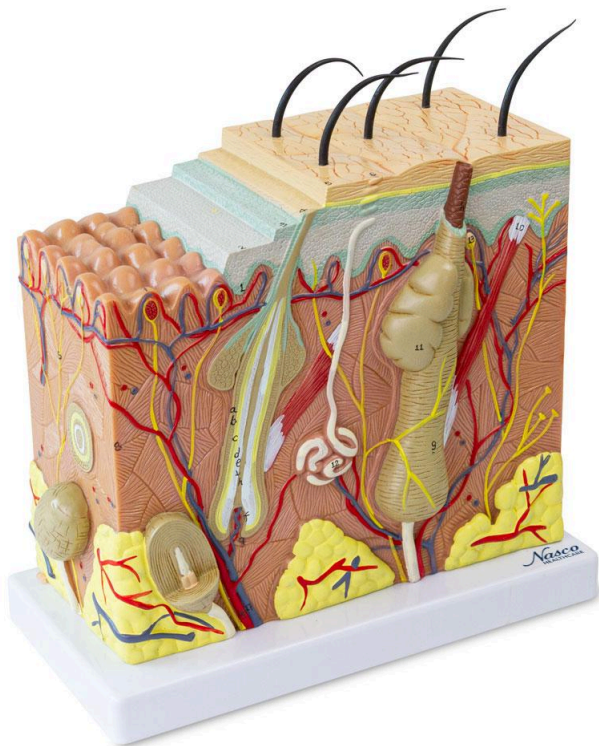
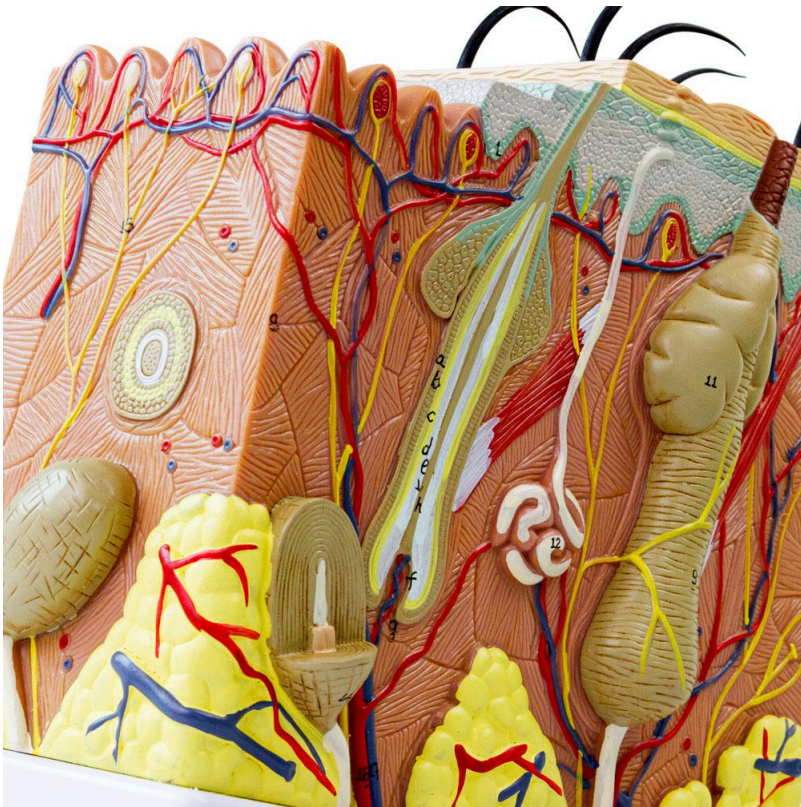
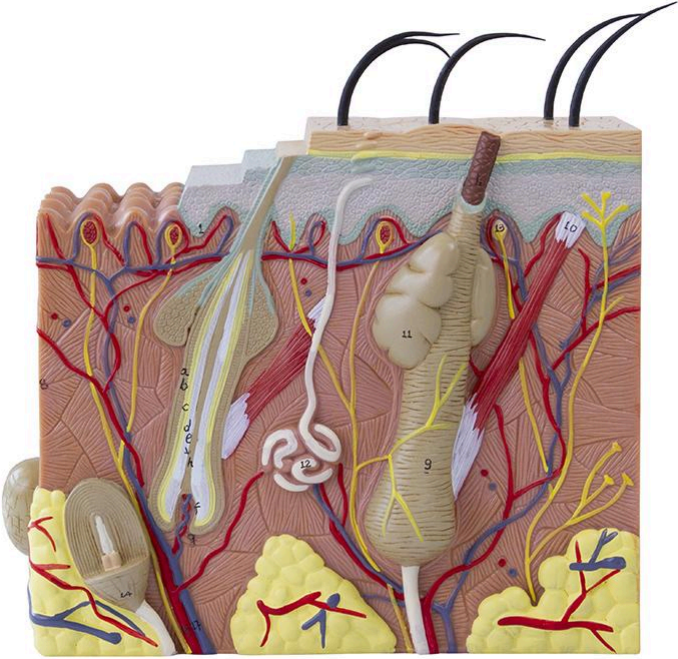
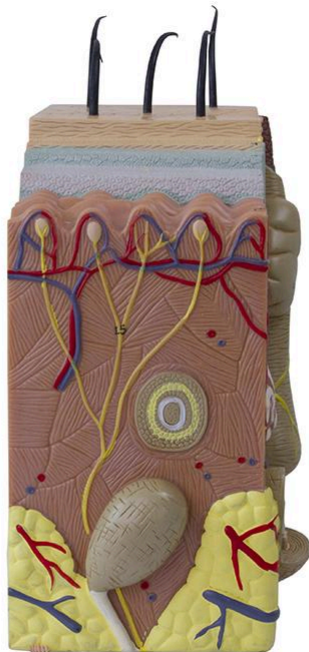


**MG31095 | HUMAN SKIN SECTION, 50 TIMES ENLARGED**









Detailed three-dimensional anatomical model of human skin, displaying structures such as hair follicles, sebaceous and sweat glands, arrector pili muscles, Pacinian corpuscles, nerves, blood vessels, and clearly defined skin layers. Important anatomical structures are numbered for easy identification.

**Applications:**

Ideal for the study of skin anatomy, dermatology training, education in skin physiology and pathophysiology, and as a support tool for interactive learning.

**Technical Differentiators:**

- \* Detailed representation of the anatomical structures of the skin.
- \* Numbered anatomical structures for easy identification.
- \* Manufactured with long-lasting synthetic material.
- \* Mounted on a durable polymer base with support.

**3D Technology and Augmented Reality:**

Our anatomical models offer an innovative visual complement through informative cards that activate 3D models viewable in augmented reality (A.R.). This exclusive interactive platform stimulates learning, allowing for comparative analysis of anatomical structures and offering opportunities for continuing education in anatomy, physiology, and pathophysiology.



### **Technical Specifications:**

- \* Material: Long-lasting synthetic material
- \* Base: Durable polymer with support

### **Main Structures:**

**basal layer:** The basal layer is the deepest layer of the epidermis, composed of a single layer of cuboidal or columnar cells called basal keratinocytes. These cells are in constant cell division, replenishing the more superficial cells of the epidermis. The basal layer also contains melanocytes, responsible for producing melanin, the pigment that protects the skin against damage from ultraviolet radiation.

**spinous layer:** Located above the basal layer, the spinous layer is composed of several layers of keratinocytes joined by desmosomes, which give the cell a spiny appearance. This layer is rich in keratin filaments, which contribute to the skin's resistance and flexibility. Langerhans cells, important for the skin's immune response, are also found in the spinous layer.

**granular layer:** The granular layer is characterized by the presence of keratohyalin granules in keratinocytes, which contribute to the formation of the skin's impermeability barrier. The cells in this layer begin to lose their nuclei and organelles, preparing to become cells of the stratum corneum.

**stratum corneum:** The outermost layer of the epidermis, the stratum corneum, is composed of several layers of dead, flattened, and keratinized cells called corneocytes. This layer protects the skin against dehydration, abrasion, and penetration of harmful substances. Cells of the stratum corneum are continuously shed and replaced by new cells from the deeper layers of the epidermis.

**hair follicle:** The hair follicle is a tubular structure in the dermis of the skin that produces hair. It is composed of several layers of cells, including the inner and outer root sheath, the hair matrix, and the dermal papilla. The dermal papilla provides nutrients and signals for hair growth.

**sebaceous gland:** Sebaceous glands are exocrine glands found in the dermis of the skin, usually associated with hair follicles. They secrete sebum, an oily substance that lubricates and protects the skin and hair. Sebum also has antimicrobial properties.

**sweat gland:** Sweat glands are exocrine glands found in the dermis of the skin, responsible for producing sweat. There are two main types of sweat glands: eccrine and apocrine. Eccrine glands are present throughout the skin and secrete a watery sweat to regulate body temperature. Apocrine glands are located in specific areas, such as the armpits and genital region, and secrete a more viscous sweat that can contribute to body odor.



**arrector pili muscle:** The arrector pili muscle is a small smooth muscle that extends from the base of the hair follicle to the papillary layer of the dermis. Its contraction causes the hair to stand on end, resulting in the formation of "goosebumps." This contraction also helps to warm the skin and secrete sebum.

**artery:** Arteries are blood vessels that carry oxygen-rich blood from the heart to the body's tissues. In the skin, arteries provide nutrients and oxygen to the cells of the epidermis and dermis.

**vein:** Veins are blood vessels that carry oxygen-poor blood from the body's tissues back to the heart. In the skin, veins remove metabolic waste products from the cells of the epidermis and dermis.

Other structures can be verified directly on the physical piece or in the interactive 3D model.

#### **Customizable Skin Tones:**

This anatomical model offers the option to choose between three skin tones to better represent human diversity and meet different educational and clinical needs. You can choose between light skin, intermediate tone, and dark skin, providing greater realism and inclusion during training and demonstrations.

#### **About Anatomical Models:**

They are developed with resin replication technology, addressing the scarcity of natural anatomical pieces for teaching and research. They present all the essential morphological characteristics with excellent cost-benefit, resistance, manual painting, and numbering for precise identification of structures.

#### **List of all visible structures:**

- basal layer
- spinous layer
- granular layer
- lucid layer
- stratum corneum
- sweat gland pore
- dermal papilla
- sebaceous gland
- tactile corpuscle
- arrector pili muscle
- hair follicle
- sweat gland
- lamellar corpuscle



- reticular layer
- layer of connective tissue
- hyaloid membrane
- external root sheath
- internal root sheath
- hair cuticle
- hair shaft
- hair matrix
- hair follicle papilla
- artery
- vein
- free nerve ending
- epidermis
- dermis
- subcutaneous tissue