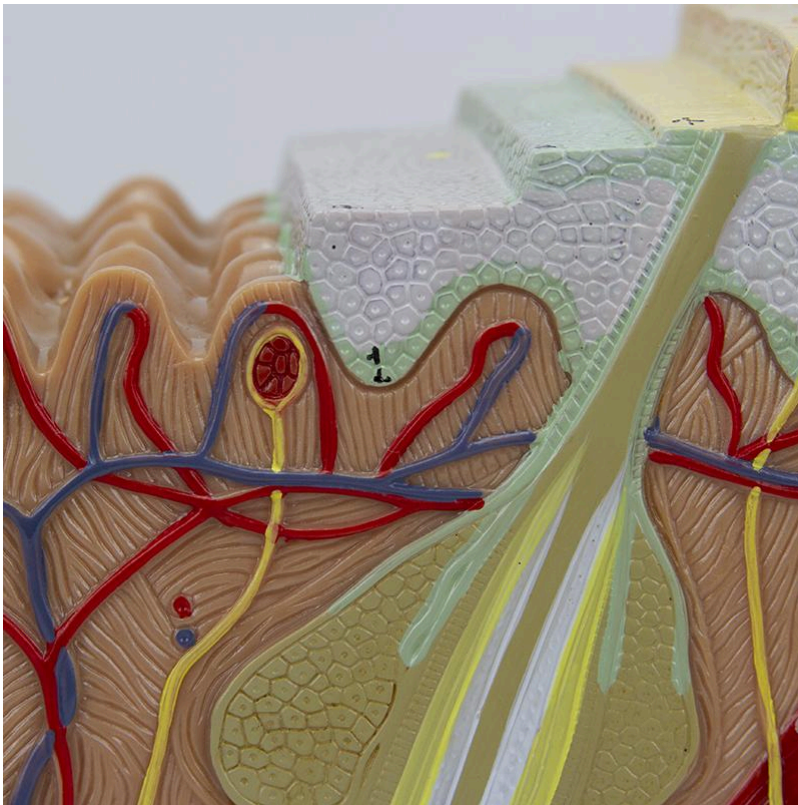
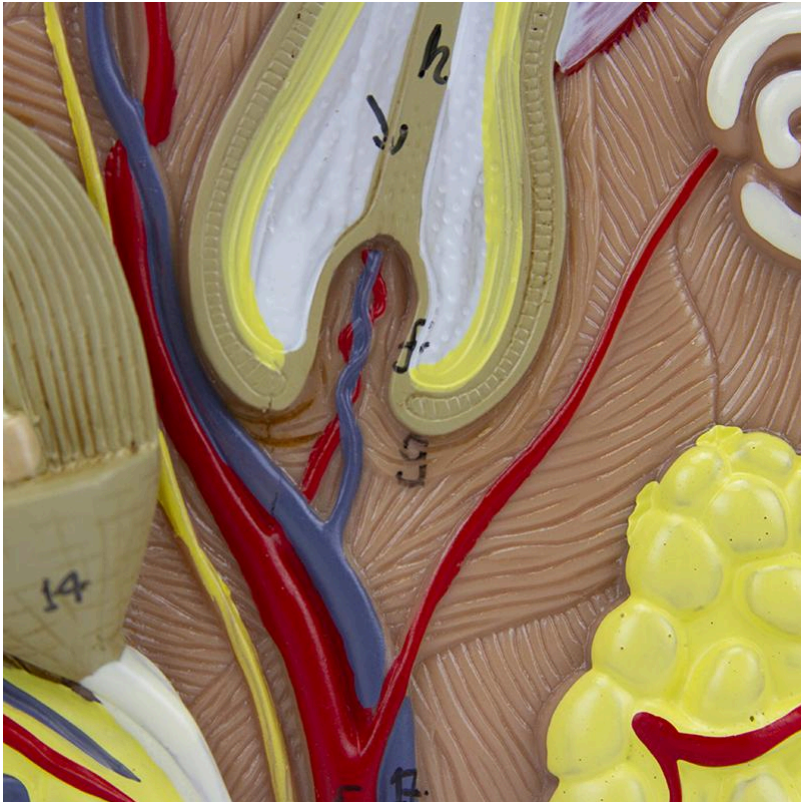
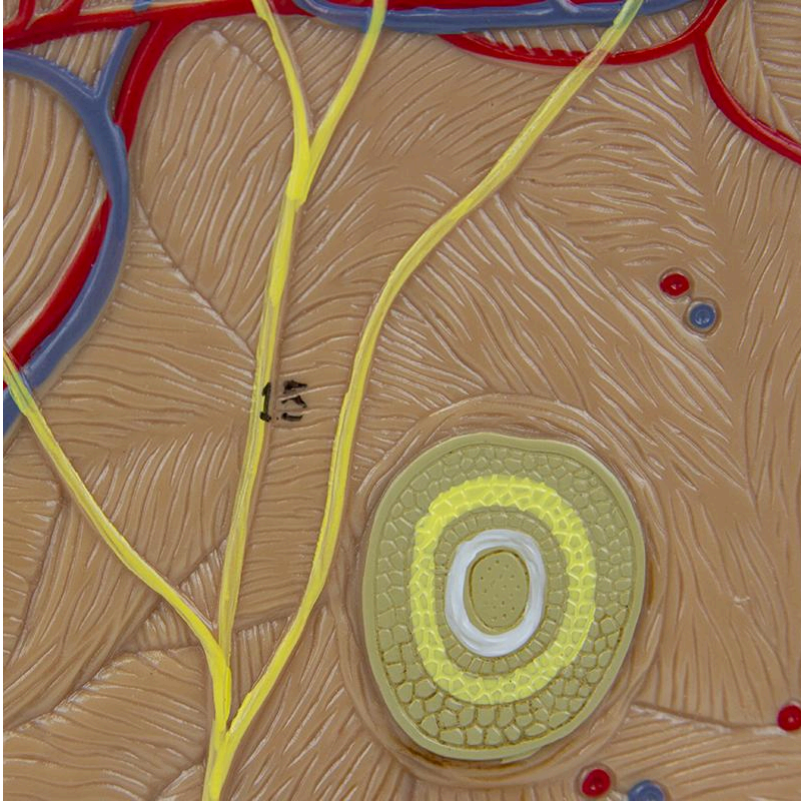
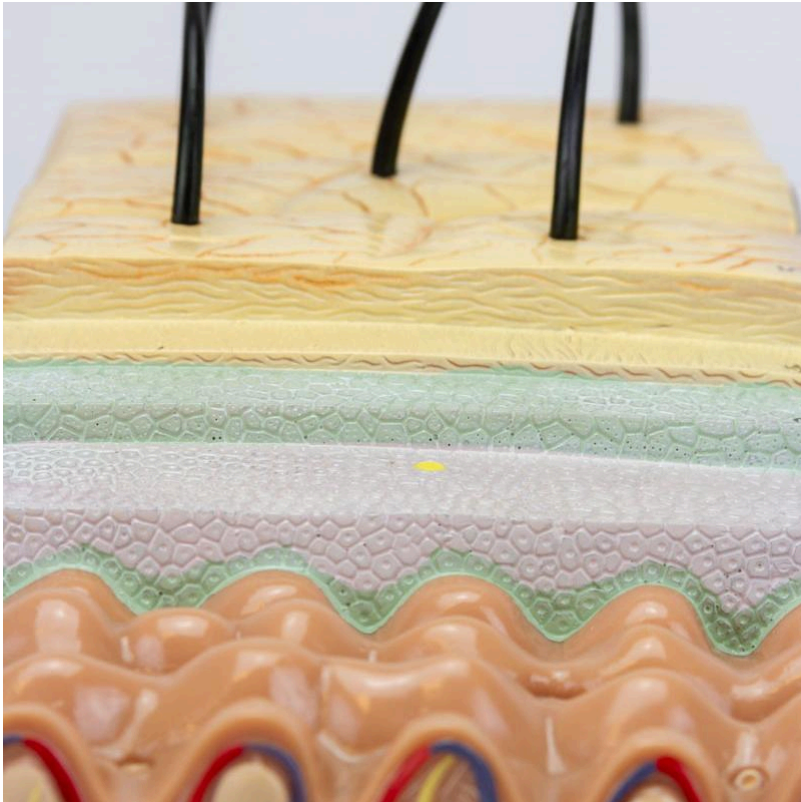
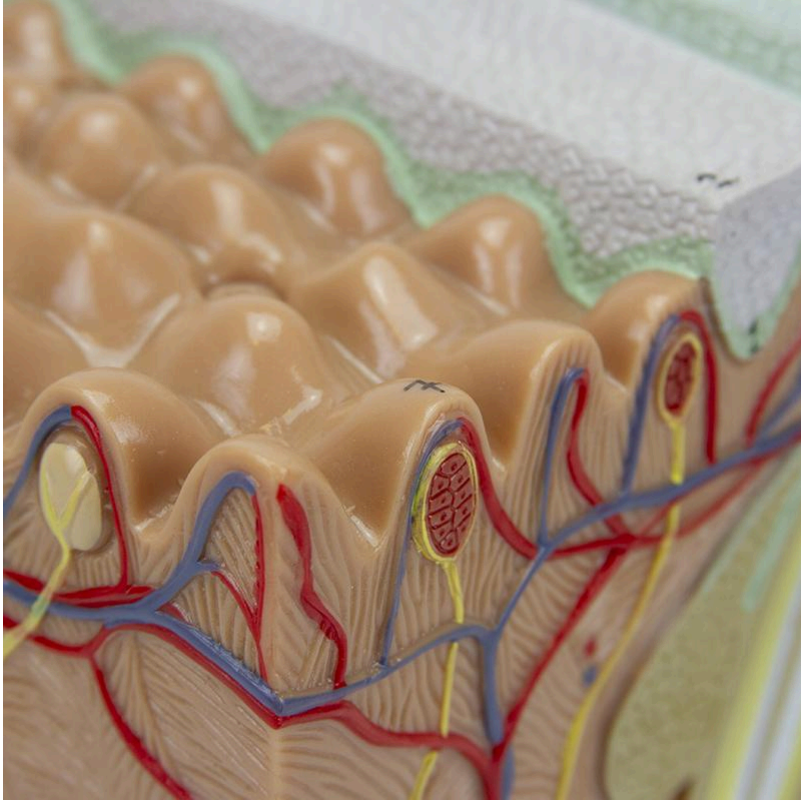


MG21067 | HUMAN SKIN SECTION, 70 TIMES ENLARGED

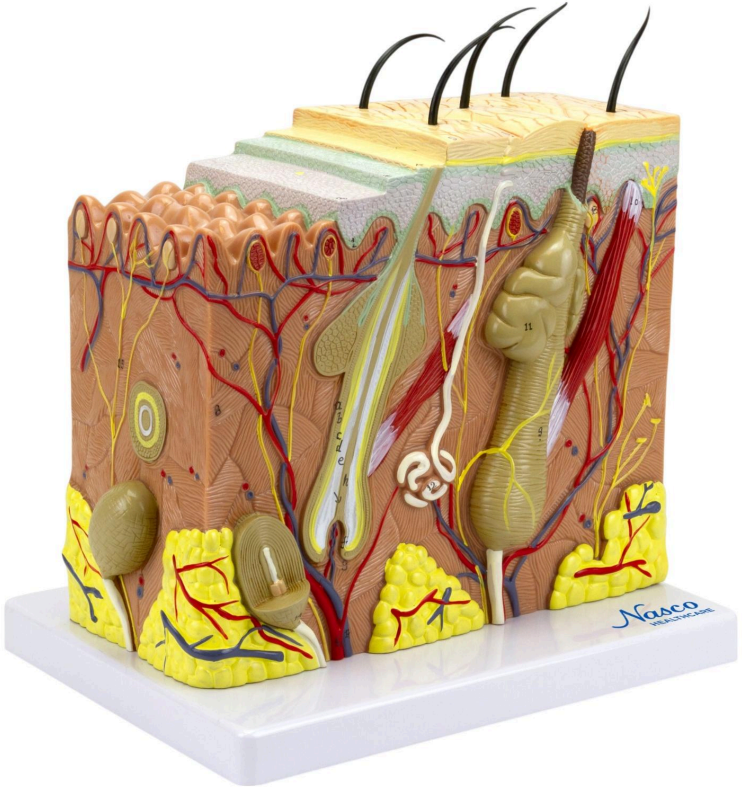




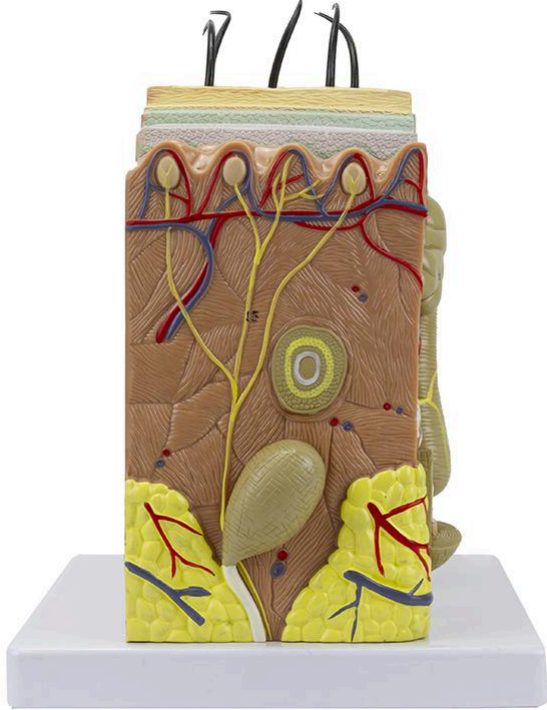




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Three-dimensional anatomical model representing the detailed structure of human skin, highlighting hair follicles, sebaceous and sweat glands, arrector pili muscles, Pacinian corpuscles, nerves, and blood vessels. The layers of the skin are clearly defined, and important anatomical structures are numbered for easy identification and learning.

Applications:

Ideal for studying skin anatomy, training healthcare professionals, classroom demonstrations and presentations, and aiding in the understanding of cutaneous physiology and pathophysiology.

Technical Differentiators:

- * Detailed representation of the anatomical structures of the skin.
- * Important anatomical structures numbered for easy identification.
- * Manufactured with durable synthetic material.

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 comparative analysis of anatomical structures and offering opportunities for continued education in anatomy, physiology, and pathophysiology.

Technical Specifications:

- * Material: Durable synthetic material.
- * Numbered structures for identification.

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 constantly undergoing cell division, replenishing the epidermal cells that are lost on the surface. The basal layer also contains melanocytes, cells responsible for producing melanin, the pigment that gives skin its color and protects against ultraviolet radiation damage.

spinous layer: The spinous layer, also known as the stratum spinosum, is a layer of the epidermis located above the basal layer. It is composed of several layers of keratinocytes connected by desmosomes, which give the cells a "spiny" appearance. The cells in the spinous layer are larger and more polygonal than the cells in the basal layer, and they contain keratin filaments that contribute to the skin's strength.

granular layer: The granular layer is a thin layer of the epidermis located between the spinous layer and the stratum corneum. The cells in this layer contain granules of keratohyalin, which are precursors to keratin. As the cells move toward the surface of the



skin, they lose their nuclei and other organelles, and the keratohyalin granules transform into keratin, a hard, resistant protein that forms the main protective barrier of the skin.

stratum corneum: The stratum corneum is the outermost layer of the epidermis, composed of several layers of dead, flattened cells called corneocytes. These cells are filled with keratin and surrounded by lipids, forming an impermeable barrier that protects the body against dehydration, invasion by microorganisms, and chemical and physical damage. The cells of the stratum corneum are constantly shed and replaced by new cells that move up from the granular layer.

sweat gland pore: The sweat gland pore is the opening on the surface of the skin through which sweat is released. Sweat glands are responsible for regulating body temperature by producing sweat, which evaporates and cools the skin. There are two main types of sweat glands: eccrine, which are present throughout the skin and produce a watery sweat, and apocrine, which are located in the armpits and genital area and produce a thicker, oily sweat.

dermal papilla: Dermal papillae are cone-shaped projections of the dermis that extend into the epidermis. They increase the surface area of contact between the dermis and epidermis, facilitating the exchange of nutrients and oxygen between the two layers. Dermal papillae also contain blood vessels and nerve endings, which provide nutrition and sensitivity to the skin.

sebaceous gland: Sebaceous glands are exocrine glands located in the dermis and associated with hair follicles. They secrete sebum, an oily substance that lubricates the skin and hair, protecting them from dehydration and invasion by microorganisms. Sebum production is regulated by hormones and can vary with age, sex, and health status.

tactile corpuscle: Tactile corpuscles, also known as Meissner's corpuscles, are sensory receptors located in the dermal papillae of hairless skin, such as the fingertips and lips. They are responsible for detecting light touch and discrimination between two nearby points. Tactile corpuscles are especially sensitive to changes in texture and low-frequency vibrations.

arrector pili muscle: The arrector pili muscle is a small smooth muscle located in the dermis and connected to the hair follicle. When this muscle contracts, it pulls the hair follicle upright, causing the hair to stand on end. This contraction also causes small elevations to appear on the skin, known as "goosebumps." The arrector pili muscle is activated by stimuli such as cold, fear, and excitement.

hair follicle: The hair follicle is a tubular structure located in the dermis and responsible for the production and growth of hair. It is composed of several layers of cells that divide and differentiate to form the hair. The hair follicle also contains sebaceous glands, which secrete sebum to lubricate the hair, and arrector pili muscles, which cause the hair to stand on end.



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. It is possible to 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
- spiny layer
- granular layer
- lucid layer
- horny layer
- sweat gland pore
- dermal papilla
- sebaceous gland
- tactile corpuscle
- arrector pili muscle
- hair follicle
- sweat gland
- lamellar corpuscle
- reticular layer
- connective tissue layer
- hyaline 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