



MG21065 | HUMAN SKIN SECTION WITH PATHOLOGY, 30 TIMES ENLARGED



Enlarged anatomical model 30 times the natural size, featuring detailed and realistic representations of closed and open acne lesions, primary lesions (papule and macule), deeper lesions (nodule), cyst, fissure, pustule, ulcer, blister, and scale. The pathologies are shown separately with a realistic representation of their morphology, mounted on a durable polymer base with support.

Applications:

Ideal for the study and detailed understanding of the different manifestations of acne and other skin pathologies, facilitating learning in dermatology, cosmetology, and related fields. It is a valuable tool for demonstrations in medical offices, classrooms, and training centers.

Technical Differentiators:

- * Detailed and realistic representation of acne lesions and other skin pathologies.
- * Long-lasting synthetic material that ensures abrasion resistance.



* Mounted on a durable polymer base with support for easy viewing and handling.

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 continuing education in anatomy, physiology, and pathophysiology.

Technical Specifications:

- * Scale: 30 times the natural size
- * Material: Long-lasting synthetic material
- * Base: Durable polymer with support

Main Structures:

Sweat gland: Sweat glands are tubular structures found in the dermis and are responsible for producing sweat, a fluid composed mainly of water, salts, and urea. Sweat is released onto the skin's surface through pores, helping to regulate body temperature through evaporation. There are two main types of sweat glands: eccrine glands, which are present on almost the entire surface of the skin and are responsible for thermoregulation, and apocrine glands, which are mainly located in the armpits and genital region and produce a thicker sweat rich in lipids.

Papule: A papule is a small, solid, circumscribed elevation on the skin, usually less than 1 centimeter in diameter. Papules can have different colors, such as red, pink, brown, or skin-colored, and can be smooth or rough to the touch. They are caused by a variety of conditions, including inflammation, infections, allergic reactions, or abnormal cell growth. Papules are often found in skin rashes, such as acne, eczema, and psoriasis, and may be accompanied by itching or other symptoms.

Macule: A macule is a flat, circumscribed area of altered skin color, without noticeable elevation or depression. Macules can vary in size and color, with red, brown, or white spots being the most common. They are caused by a variety of factors, including hyperpigmentation (increased melanin production), hypopigmentation (decreased melanin production), bleeding under the skin, or inflammation. Examples of macules include freckles, sunspots, birthmarks, and the characteristic spots of measles.

Adipocytes: Adipocytes, also known as fat cells, are specialized cells that store energy in the form of triglycerides. They are the main component of adipose tissue, which plays a crucial role in energy metabolism, thermal insulation, and organ protection. Adipocytes are rounded cells with a large lipid vacuole that occupies most of their volume, pushing the nucleus and cytoplasm to the periphery. In addition to storing fat, adipocytes also secrete hormones and other substances that influence appetite, insulin sensitivity, and inflammation.



Vein: Veins are blood vessels that carry blood back from the body's tissues to the heart. Unlike arteries, which carry oxygenated blood under high pressure, veins carry deoxygenated blood under low pressure. To prevent backflow of blood, veins have internal valves that open to allow flow toward the heart and close to prevent flow in the opposite direction. Veins are thinner and less elastic than arteries, and their wall is composed of three layers: the tunica intima (inner layer), the tunica media (middle layer), and the tunica adventitia (outer layer).

Artery: Arteries are blood vessels that carry oxygen-rich blood from the heart to the body's tissues. They are characterized by thick, elastic walls, which allow them to withstand the high pressure of blood pumped by the heart. The arteries branch into smaller vessels called arterioles, which in turn connect to the capillaries, where the exchange of oxygen and nutrients with the tissues occurs. The walls of the arteries are composed of three layers: the tunica intima (inner layer), the tunica media (middle layer, rich in smooth muscle and elastic fibers), and the tunica adventitia (outer layer).

Hair follicle: The hair follicle is a complex structure of the skin responsible for hair growth. It extends from the epidermis to the dermis and is composed of several parts, including the inner root sheath, the outer root sheath, the hair matrix, and the dermal papilla. The dermal papilla contains blood vessels that supply nutrients to the cells of the hair matrix, which divide and differentiate to form the hair. The type and amount of hair produced by a hair follicle are influenced by genetic and hormonal factors.

Nerves: Nerves are structures of the peripheral nervous system that transmit electrical and chemical signals between the brain, spinal cord, and the rest of the body. They are composed of bundles of nerve fibers called axons, which are surrounded by layers of connective tissue called endoneurium, perineurium, and epineurium. Nerves can be classified into three main types: sensory nerves, which transmit information from sensory organs to the central nervous system; motor nerves, which transmit commands from the central nervous system to muscles and glands; and mixed nerves, which contain both sensory and motor fibers.

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. When this muscle contracts, it pulls the hair follicle upward, causing what is popularly known as "goosebumps" or "gooseflesh." The contraction of the arrector pili muscle is controlled by the sympathetic nervous system and is usually triggered by stimuli such as cold, fear, or excitement. In addition to raising the hair, the contraction of the arrector pili muscle also helps to compress the sebaceous glands, facilitating the release of sebum onto the skin's surface.

Fissure: A fissure is a crack or split in the skin that can vary in depth and extent. Fissures are often found in areas of the skin subject to dryness, friction, or pressure, such as the



heels, hands, and lips. They can be painful and, in some cases, can bleed or become infected. Common causes of fissures include dry skin, exposure to irritants, fungal infections, and certain medical conditions, such as eczema and psoriasis.

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 of choosing 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 shortage 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:

- Sweat gland
- Papule
- Macule
- Adipocytes
- Vein
- Artery
- Hair follicle
- Nerves
- Arrector pili muscle
- Fissure
- Basement membrane
- Pustule
- Hair follicle
- Hair follicle
- Adipocytes
- Artery
- Vein
- Sebaceous gland
- Sebaceous gland
- Pustule
- Open comedo
- Blackhead
- Free nerve ending



- Pacinian corpuscle
- Epidermis
- Dermis
- Dermis
- Epidermis
- Free nerve endings
- Meissner's corpuscle