



MG29941 | HUMAN EYE 6 TIMES ENLARGED, 6 PARTS



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This anatomical model of the human eye, enlarged 6 times its actual size, is designed for an in-depth understanding of its internal and external structure. It allows for dissection in the horizontal plane, revealing internal details, and the removal of key components such as the cornea, iris, lens, and vitreous body. It further details muscle insertions on the sclera and part of the choroid.

Applications:

Ideal for the detailed study of ocular anatomy in educational institutions, ophthalmological clinics, and for training healthcare professionals. It facilitates the understanding of complex structures and their relationships.

Technical Differentiators:

- * 6x enlargement of actual size for clear visualization of details.
- * Dissectible design in the horizontal plane for internal exploration.
- * Removable components: cornea, iris, lens, and vitreous body.
- * Representation of muscle insertions on the sclera and part of the choroid.
- * Manufactured with long-lasting synthetic material, ensuring durability.

3D Technology and Augmented Reality:

Our anatomical models offer an innovative visual complement through informative cards that activate 3D models visualizable 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:

* Scale: 6 times actual size

* Material: Long-lasting synthetic material

Main Structures:

vortex veins: Veins that drain blood from the choroid, the vascular layer of the eye, and carry it to the systemic circulation. They are important in maintaining ocular blood flow.

iris: Colored structure in the front of the eye, responsible for controlling the size of the pupil and, consequently, the amount of light that enters the eye. Contains muscles that contract and dilate to adjust the pupil.

cornea: Transparent and outermost layer of the eye, located in front of the iris and pupil. Acts as the main lens of the eye, focusing the light that enters, and also protects the internal structures.

lens: Biconvex and transparent structure located behind the iris. Its main function is to focus light on the retina, adjusting its curvature to allow for clear vision of objects at different distances (accommodation).

sclera: The opaque and fibrous "white part" of the eye, which forms the protective outer layer. Gives shape and rigidity to the eyeball, in addition to serving as an attachment point for extraocular muscles.

optic nerve: Bundle of nerve fibers that transmits visual information from the retina to the brain. It is essential for the perception of vision, acting as the main communication pathway between the eye and the central nervous system.

vitreous body: Gelatinous and transparent substance that fills most of the eyeball, between the lens and the retina. Helps maintain the spherical shape of the eye and keep the retina in place.

Smart Tags:

Designed to provide comprehensive training in the healthcare field, with interactive simulations covering Retina examinations. This solution assists in the development of diagnostic skills in different clinical scenarios, allowing professionals and students to explore and enhance their competencies with greater safety and accuracy.

Retinal exams: Simulate 39 retinal conditions, from normal and diabetic retinopathy (various



stages) to rare diseases like retinitis pigmentosa and macular degeneration.

- Normal
- Tessellated Fundus
- Large Optic Disc Cupping
- DR1 (Diabetic Retinopathy - Stage 1)
- DR2 (Diabetic Retinopathy - Stage 2)
- DR3 (Diabetic Retinopathy - Stage 3)
- Branch Retinal Vein Occlusion (BRVO)
- Central Retinal Vein Occlusion (CRVO)
- Retinal Artery Occlusion (RAO)
- Rhegmatogenous Retinal Detachment
- Central Serous Chorioretinopathy (CSCR)
- Vogt-Koyanagi-Harada Disease (VKH)
- Maculopathy
- Epiretinal Membrane (ERM)
- Macular Hole (MH)
- Pathological Myopia
- Possible Glaucoma
- Optic Atrophy
- Severe Hypertensive Retinopathy
- Optic Disc Swelling and Elevation
- Displaced Optic Disc
- Congenital Optic Disc Anomaly
- Retinitis Pigmentosa
- Bietti's Crystalline Dystrophy
- Peripheral Retinal Degeneration and Tear
- Myelinated Nerve Fibers
- Particles in Vitreous
- Fundus Neoplasia
- Massive Hard Exudates
- Yellowish-White Spots (Flecks)
- Cotton Wool Spots
- Vessel Tortuosity
- Chorioretinal Atrophy - Coloboma
- Preretinal Hemorrhage
- Fibrosis
- Laser Marks
- Silicone Oil in Eye
- Blurred Fundus Without PDR (Proliferative Diabetic Retinopathy)
- Blurred Fundus With Suspected PDR (Proliferative Diabetic Retinopathy)

Virtual Patient Monitor: Provides an immersive and realistic training environment for healthcare students. It allows instructors to customize parameters for various vital signs,



empowering students to interpret signals, develop critical thinking, and enhance their clinical reasoning skills through realistic scenarios.

Customizable Vital Signs

- Blood Pressure
- SpO2
- Heart Rate

ECG Interpretation: Train on 18 diverse ECG scenarios, including: Atrial Fibrillation, Ventricular Tachycardia and Heart Blocks. The monitor also simulates synchronized pulses with ECG for truly realistic cardiology training.

ECG Patterns

- Sinus Rhythm
- Atrial Extrasystole
- Atrial Flutter
- Atrial Fibrillation
- Paroxysmal Supraventricular Tachycardia (PSVT)
- Ventricular Extrasystole
- Ventricular Tachycardia (VT)
- Ventricular Fibrillation (VF)
- First-Degree Atrioventricular Block (AVB)
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block (Complete Block)
- Long QT Syndrome
- ST Segment Elevation
- ST Segment Depression
- T Wave Inversion
- Left Ventricular Hypertrophy (LVH)
- Right Ventricular Hypertrophy (RVH)
- Wolff-Parkinson-White Syndrome (WPW)

Breathing Patterns

- Normal
- Dyspnea
- Apnea
- Cheyne-Stokes
- Biot
- Kussmaul

About Anatomical Models:

They are developed with resin replication technology, addressing the scarcity of natural



anatomical specimens 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:

- vortical veins
- iris
- cornea
- lens
- sclera
- optic nerve
- vitreous body