



MG29938 | HUMAN EYE 3 TIMES ENLARGED, 8 PARTS



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This anatomical model of the human eye, magnified 3 times its natural size, is a detailed representation of ocular anatomy, and can be divided into 8 parts for in-depth study. Hand-painted and produced in resin, it is mounted on a base, displaying the halves of the sclera with cornea and muscle ligaments, the halves of the choroid with iris and retina, the lenses, and the vitreous humor.

Applications:

Ideal for:

- Academic education in medicine, nursing, and health-related courses.
- Didactic and informative explanations for patients in clinics and offices.
- Use as a decorative item in health and education-related environments.

Technical Differentiators:

- Model magnified 3 times for detailed visualization of structures.
- Divisible into 8 parts, allowing for in-depth study of the internal anatomy of the eye.
- Manual painting that provides greater realism and anatomical fidelity.
- Manufactured in high-quality resin, ensuring durability and resistance.
- Includes a support base for stable display and study.

3D Technology and Augmented Reality:

Our anatomical models offer an innovative visual complement through informative cards that



activate 3D models viewable in augmented reality (AR). 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: 3:1 (3 times natural size)
- Material: High-quality resin

Main Structures:

Sclera: The sclera is the outermost and most resistant layer of the eyeball, popularly known as the "white part of the eye." It is mainly composed of dense fibrous connective tissue, playing a crucial role in protecting the internal structures of the eye and maintaining its spherical shape. It also serves as an insertion point for the extraocular muscles that control eye movement.

Cornea: The cornea is the transparent and avascular portion of the outermost layer of the eye, located in front of the iris and pupil. It acts as the eye's main lens, refracting the light that enters the eyeball and significantly contributing to the focusing ability of vision. Its transparency is essential for the passage of light and the formation of sharp images on the retina.

Iris: The iris is the pigmented and muscular structure of the eye that surrounds the pupil. Its main function is to control the amount of light that enters the eye by adjusting the size of the pupil. It contains muscles that contract or dilate in response to light intensity, protecting the retina from excessive brightness and optimizing vision in different lighting conditions. The color of the iris is determined by the amount and distribution of melanin.

Optic Nerve: The optic nerve is a bundle of over a million nerve fibers that transmit visual information from the retina to the brain. It is considered part of the central nervous system and emerges from the posterior part of the eyeball, carrying nerve impulses generated by the photoreceptors of the retina (cones and rods) to the visual areas of the cerebral cortex, where they are interpreted as images.

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

Smart Tags:

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

- sclera
- cornea
- iris
- optic nerve