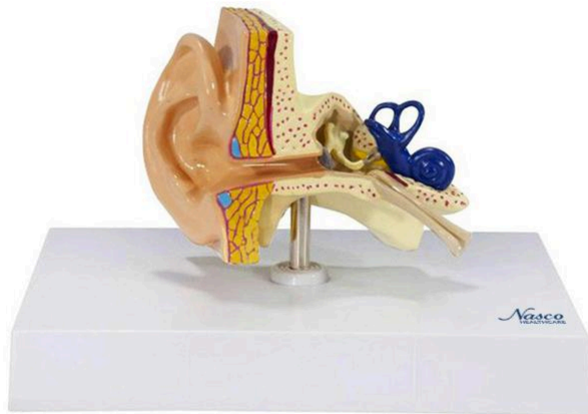




MG36905 | HUMAN EAR NATURAL SIZE







Life-size anatomical model that displays in detail the semicircular canals and cochlea in the inner ear, the auditory ossicles in the middle ear, the tympanic membrane, and the temporalis and tensor tympani muscles. A valuable tool to encourage learning and support, accompanied by an interactive 3D anatomical model with augmented reality.

Applications:

Ideal for the study of ear anatomy, healthcare professional training, classroom demonstrations, and for continuing education in anatomy, physiology, and pathophysiology.

Technical Advantages:

- * Detailed representation of ear structures.
- * Interactive 3D anatomical model with augmented reality.
- * Tool for comparative analysis of anatomical models.

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:

- * Scale: Life-size

Main Structures:

Temporal bone: The temporal bone is a paired bone that forms part of the lateral and base of the skull. It houses important structures of the auditory and balance system, including the external acoustic meatus, the tympanic cavity, the cochlea, and the semicircular canals.

Temporalis muscle: The temporalis muscle is a muscle of mastication located in the temporal fossa of the skull. It extends to the mandible and is responsible for elevating and retracting the mandible, assisting in chewing.

Fat: In the context of ear anatomy, fat can be found in various areas, such as around the auricle and within the tympanic cavity. It plays a role in thermal insulation, protection, and structural support.

Auricle: The auricle, also known as the pinna, is the visible part of the external ear. It is composed of cartilage covered by skin and has a complex shape that helps collect and direct sound waves into the ear canal.

Cochlea: The cochlea is a spiral-shaped structure located in the inner ear. It is responsible



for transducing sound vibrations into electrical signals that are sent to the brain, enabling hearing.

Auditory tube: The auditory tube, also known as the Eustachian tube, is a channel that connects the tympanic cavity to the nasopharynx. It helps equalize pressure between the middle ear and the external environment, allowing the eardrum to function properly.

Tensor tympani muscle: The tensor tympani muscle is a small muscle located in the middle ear. It connects to the malleus (one of the auditory ossicles) and helps dampen intense sound vibrations, protecting the inner ear from damage.

Semicircular canals: The semicircular canals are three fluid-filled tubes located in the inner ear. They are responsible for detecting head movements and helping to maintain balance and spatial orientation.

Stapes: The stapes is the smallest bone in the human body and one of the three auditory ossicles located in the middle ear. It receives sound vibrations from the incus and transmits them to the oval window of the cochlea.

Incus: The incus is one of the three auditory ossicles located in the middle ear. It receives sound vibrations from the malleus and transmits them to the stapes.

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. It is possible to choose between light skin, intermediate tone, and dark skin, providing greater realism and inclusion during training and demonstrations.

Smart Tags:

Designed to provide comprehensive training in the healthcare field, with interactive simulations covering Ear exams. This solution assists in developing diagnostic skills in different clinical scenarios, allowing professionals and students to explore and improve their skills with greater safety and accuracy.

Ear exams: Conduct 9 realistic diagnostic exams.

- AOM
- Chronic
- Ear Ventilation
- Earwax
- Foreign Object
- Normal



- Otitis Externa
- Pseudomembrane
- Tympanosclerosis

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:

- Temporal bone
- Temporal muscle
- Fat
- Auricle
- Cochlea
- Eustachian tube
- Tensor tympani muscle
- Semicircular canals
- Stapes
- Incus
- Tympanic membrane
- Cartilage