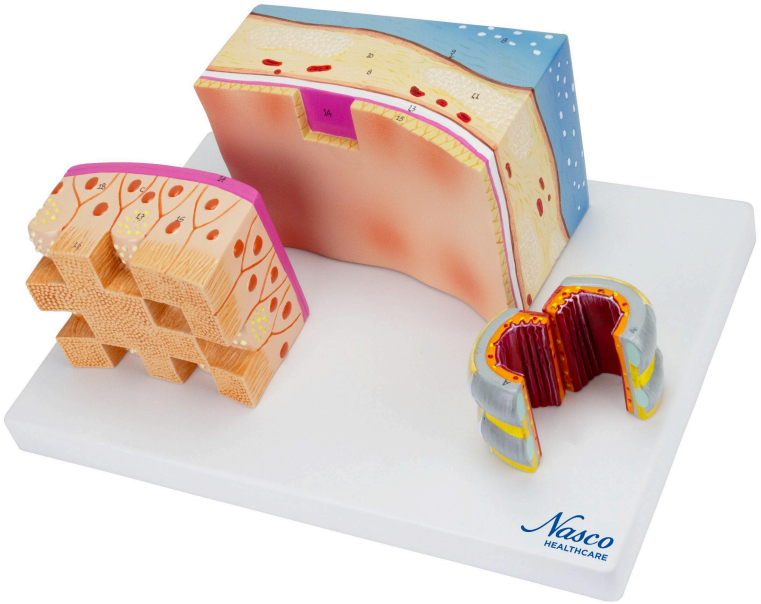
MG31097 | MICRO ANATOMY OF TRACHEA SECTION



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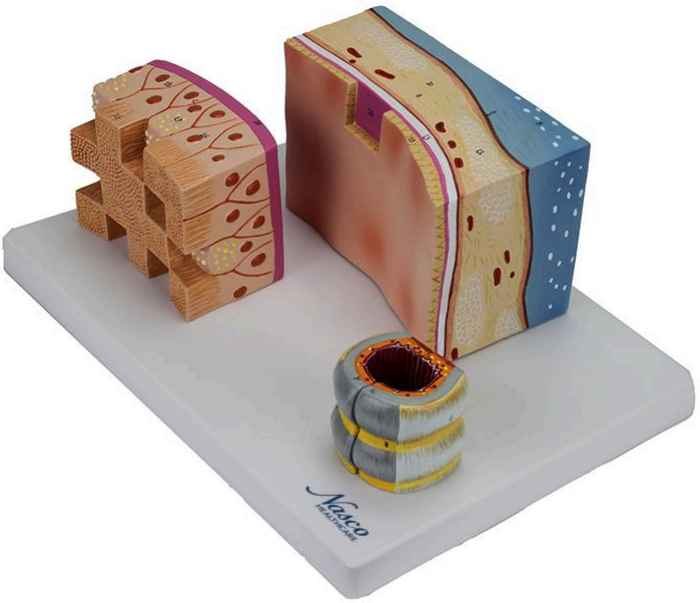

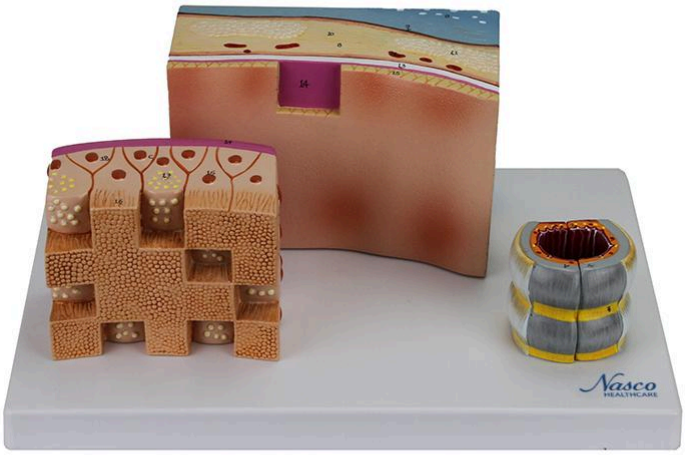

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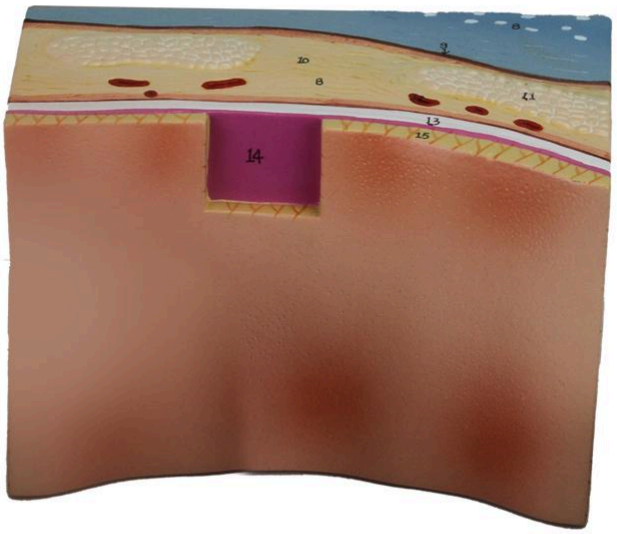

This anatomical model of the trachea presents three models at different scales, all mounted on a single base, for a detailed study of tracheal anatomy. It includes a 3x life-size cross-section of the trachea, sectioned longitudinally for internal visualization, a 10x magnification of the anterior wall showing the different layers, and a 100x magnification of the pseudostratified ciliated epithelium, displaying cellular details.

Applications:
This model is indicated for the study of anatomy in schools and universities, training, patient explanations, and for medical and scientific purposes. It is suitable for the study of the respiratory system, surgical dissection training, use in clinics, classrooms, and procedure demonstrations.

Technical Features:
* Detailed representation of tracheal anatomy at multiple scales.
* High fidelity in the reproduction of anatomical structures.
* Numbered and hand-painted to facilitate the identification of structures.
* Manufactured from stable synthetic material and resin approved in toxicological tests.
* Includes an information card with related structures.
* Polymer base for support.
* Model with references and markings.
* High-quality anatomical replicas.

3D Technology and Augmented Reality:
Our anatomical models offer a visual complement through information cards that activate 3D models viewable in augmented reality (AR). This interactive platform assists learning, allowing for comparative analysis of anatomical structures and offering resources for continuing education in anatomy, physiology, and pathophysiology.

Technical Specifications:
* Material: Synthetic resin.
* Scale: 3x, 10x, and 100x life size.

Main Structures:
Tracheal cross-section: This model shows the general structure of the trachea, including the incomplete cartilaginous rings, the posterior fibromuscular membrane, and the tracheal lumen.

Tracheal cartilage (ring): "C"-shaped hyaline cartilage rings that provide structural support to the trachea, keeping it open.

Annular ligament: Fibrous connective tissue that connects the posterior ends of the tracheal cartilaginous rings, allowing flexibility and expansion during breathing.

Connective sheath: Layer of connective tissue that surrounds the trachea, providing support and protection.

Small artery: Small blood vessels that irrigate the tracheal wall.

Tracheal gland: Small mucous glands that secrete mucus to humidify and protect the inner surface of the trachea.

Esophageal muscle: The esophageal muscle is adjacent to the trachea posteriorly and is visible in some sections.

Pseudostratified epithelium (magnification): The pseudostratified ciliated epithelium of the trachea, showing the variety of cells (ciliated and goblet) and the presence of cilia.

Mucous granular: Goblet cells produce mucus, which is rich in glycoproteins and acts in the protection and cleaning of the trachea.

Mucous goblet cell: Mucus-secreting cells present in the tracheal epithelium, important in the humidification and cleaning of the airways.

Cilia: Small cellular extensions that move coordinately to remove mucus and foreign particles out of the respiratory system.

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

About the Anatomical Models:
They are developed with resin replication technology, offering an alternative to natural anatomical models for teaching and research. They present the main morphological characteristics and offer excellent cost-benefit, good resistance, hand painting, and numbering for precise identification of structures.

List of all visible structures:

- transverse section of trachea
- tracheal cartilage (ring)
- annular ligament
- connective sheath
- small artery

- tracheal gland
- esophageal muscle
- pseudostratified epithelium (magnification)
- mucoid granular
- mucous goblet cell
- cilium
- ciliated pseudostratified epithelium
- basement membrane
- basement membrane
- transverse section of anterior wall (magnification)
- tracheal gland
- basal lamina
- pseudostratified ciliated epithelium
- perichondrium
- tracheal cartilage (ring)