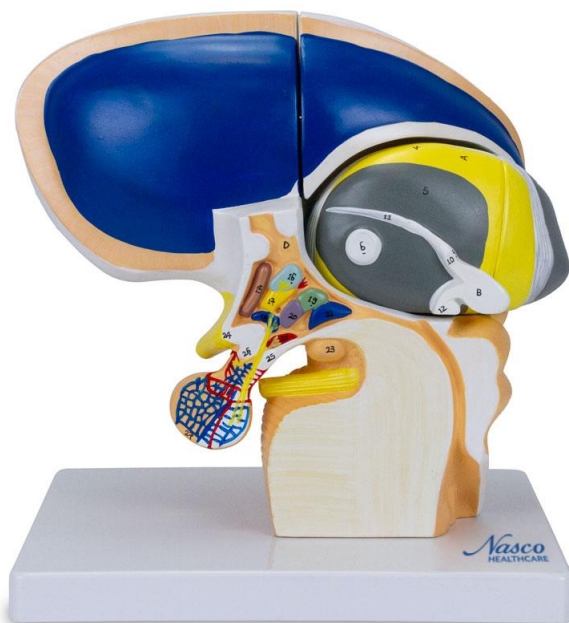


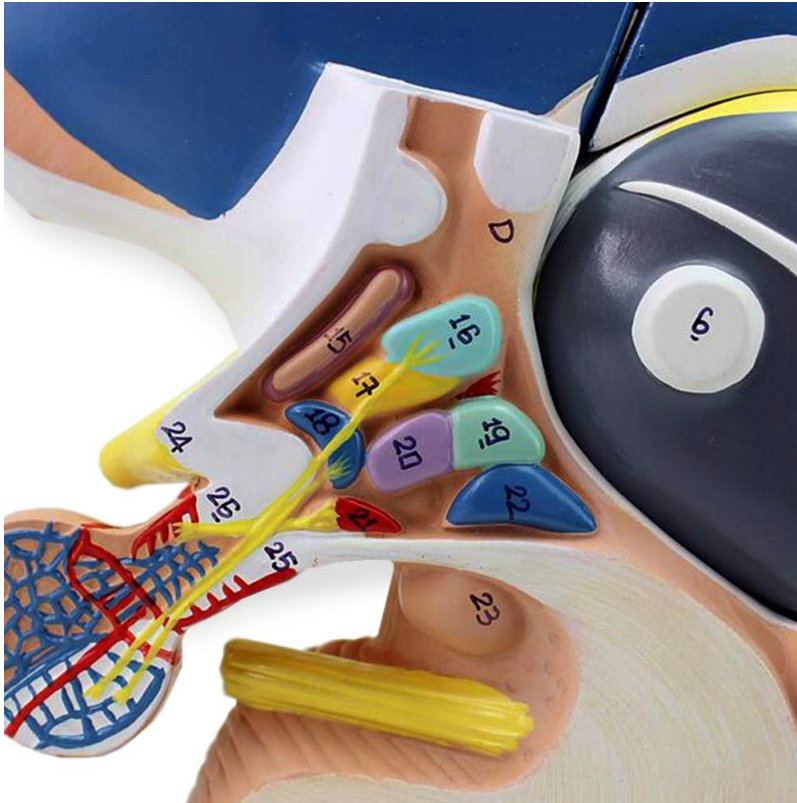


**MG22801 | HUMAN DIENCHYPHAL ENLARGED
5 TIMES, 4 PARTS)**









This anatomical model represents the human diencephalon, enlarged 5 times its natural size, and divided into 4 parts for detailed study of its structures. The thalamus is removable and sectionable, allowing for internal visualization. All major structures are numbered and hand-painted with didactic colors for better understanding. The model is mounted on a polymer base with a metal support, ensuring stability and practicality.

Applications:

Ideal for the study of anatomy in schools and universities; training tool for medical professionals; resource for medical and scientific information.

Technical Features:

- * Numbered and hand-painted to facilitate the identification of structures;
- * High level of detail for better learning;
- * High-precision natural molding;
- * Made of resistant and durable synthetic material;
- * Resin approved in toxicological tests;
- * Includes an information card with the related structures.



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 complements learning, allowing for comparative analysis of anatomical structures and offering resources for continuing education in anatomy, physiology, and pathophysiology.

Technical Specifications:

- * Material: Resin
- * Scale: 5 times natural size
- * Number of Parts: 4
- * Model mounted on a base with metal support

Main Structures:

Thalamus: Large ovoid mass of gray matter located in the diencephalon, playing a crucial role in the transmission of sensory information to the cerebral cortex and in the control of motor functions, in addition to being involved in emotional and memory processes.

Hypothalamus: Small but vital region located below the thalamus, which regulates essential autonomic functions such as body temperature, hunger, thirst, sleep-wake cycle, and the endocrine system through the pituitary gland.

Epithalamus: Dorsal region of the diencephalon, containing the pineal gland (responsible for the production of melatonin, a hormone related to the circadian rhythm) and the habenular commissures.

Pituitary Gland: Endocrine gland located at the base of the brain, which secretes various hormones that regulate several bodily functions. Connected to the hypothalamus by the infundibulum.

Mammillary Body: Small rounded structures that are part of the Papez circuit, a neural circuit involved in memory.

Optic Chiasm: Location where the nerve fibers of the optic nerve partially cross, before proceeding to the thalamus and other areas of the brain.

Hypothalamic Nuclei (anterior, ventromedial, supraoptic, paraventricular): Groups of



neurons within the hypothalamus that regulate different physiological functions, including hormone release and body temperature regulation.

Metathalamus: Includes the medial geniculate bodies (related to hearing) and lateral geniculate bodies (related to vision), which act as relay stations for sensory impulses to the cerebral cortex.

Epithalamus: Small region containing the pineal gland, which produces melatonin, and structures related to the limbic system.

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

About the Anatomical Models:

They are developed with resin replication technology, supplying 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:

- Medial geniculate body
- Lateral geniculate body
- Metathalamus
- Pineal body
- Thalamus
- Medial nuclei
- Epithalamus
- Posterior commissure
- Median nuclei
- Habenular trigone
- Habenular commissure
- Medullary stria of the thalamus
- Interthalamic adhesion
- Hypothalamus
- Mammillary body
- Posterior hypothalamic nucleus
- Dorsomedial hypothalamic nucleus
- Paraventricular nucleus
- Tuber cinereum
- Tuberal and arcuate nuclei
- Ventromedial hypothalamic nucleus



- Infundibulum
- Anterior hypothalamic nucleus
- Preoptic nuclei
- Optic chiasm
- Supraoptic nucleus
- Hypophysis
- Subthalamic nucleus
- Subthalamus
- Lateral geniculate body
- Metathalamus
- Medial geniculate body
- Mammillary body
- Posterior hypothalamic nucleus
- Dorsomedial nucleus of the intermediate hypothalamus
- Paraventricular nucleus
- Tuber cinereum
- Tuberal and arcuate nuclei
- Pituitary gland
- Ventromedial nucleus of the hypothalamus
- Hypothalamus
- Anterior hypothalamic nucleus
- Preoptic nuclei
- Supraoptic nucleus
- Infundibulum
- Optic chiasm