MG21887 | LUMBAR HUMAN SPINAL COLUMN



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This anatomical model of the lumbar spine features, in life size, 5 lumbar vertebrae, intervertebral discs, lumbar nerves, and spinal cord. The sacral crest and coccyx are removable, allowing detailed visualization of the sacral segment of the spinal cord and its nerve branches. Its precise and detailed construction makes it a valuable tool for studying the anatomy of the lumbosacral region.

Applications:

This model is ideal for the study of human anatomy in schools and universities, professional training in orthopedics, chiropractic, anatomy, sports medicine, and rehabilitation, patient education, and procedure demonstration. It is also a useful tool for medical and scientific explanations, highlighting important points of the human skeleton, joints, and related diseases.

Technical Differentials:

* High didactic level;
* Suitable for various health areas;
* High-quality natural molding;
* Made of stable and resistant synthetic material;
* Detailed replicas;
* Life size;
* Includes polymer base and metal support;
* Resin with approval in toxicological tests.

3D Technology and Augmented Reality:

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

Technical Specifications:

* Scale: Life size
* Material: Synthetic resin

Main Structures:

Coccyx: The coccyx is the last segment of the vertebral column, formed by the fusion of three to five rudimentary coccygeal vertebrae. It is a small, triangular bone that provides an

insertion point for some muscles and ligaments.

Sacrum: The sacrum is a triangular bone formed by the fusion of five sacral vertebrae. It articulates superiorly with the fifth lumbar vertebra (L5) and inferiorly with the coccyx. It presents sacral foramina for the passage of nerves and blood vessels.

Intervertebral Discs: Intervertebral discs are fibrocartilaginous structures located between the vertebral bodies, acting as shock absorbers and allowing flexibility of the spine. They are composed of an outer annulus fibrosus and an inner nucleus pulposus.

L5: The fifth lumbar vertebra (L5) is the largest and most robust of the lumbar vertebrae. It articulates with the sacrum and supports a large part of the body weight.

L4: The fourth lumbar vertebra (L4) is a typical lumbar vertebra, with a large vertebral body and a robust spinous process.

L3: The third lumbar vertebra (L3) is also a typical lumbar vertebra, with characteristics similar to L4.

L2: The second lumbar vertebra (L2) presents morphological characteristics similar to the lower lumbar vertebrae.

L1: The first lumbar vertebra (L1) is generally the smallest of the lumbar vertebrae, but still retains the general characteristics of the lumbar vertebrae.

Prolapsed Intervertebral Disc: A prolapsed intervertebral disc (herniated disc) occurs when the nucleus pulposus displaces beyond the annulus fibrosus, potentially compressing nerves and causing pain.

Lumbar Nerves: The lumbar nerves emerge from the spinal cord in the lumbar region and innervate the lower limbs and lower abdominal region.

Removable Crest: The sacral crest and coccyx are removable, facilitating the study of internal structures.

Spinal Cord: The spinal cord is the part of the central nervous system located in the vertebral canal, responsible for transmitting nerve impulses between the brain and the body. In this piece, the sacral segment of the spinal cord is observed. 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, meeting the demand for anatomical parts for teaching and research. They present the essential morphological characteristics with excellent cost-benefit, good resistance, manual painting, and numbering for precise identification of structures.

List of all visible structures:

- coccyx
- sacrum
- intervertebral discs
- L5
- L4
- L3
- L2
- L1
- prolapsed intervertebral disc
- lumbar nerves
- removable crest
- spinal cord