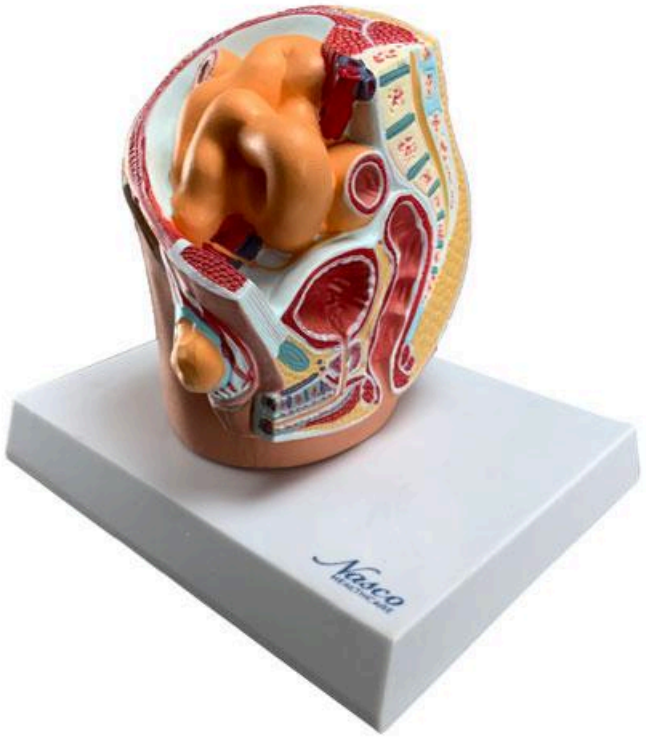
MG30132 | INGUINAL HERNIA UROLOGY



Half life-size model representing the sagittal and medial section of a male human pelvis, displaying an indirect inguinal hernia. Manufactured with durable synthetic material, this model is a valuable tool for the detailed study of pelvic anatomy and inguinal hernias.

Applications:
Ideal for studying the anatomy of the male pelvis, understanding the formation and characteristics of indirect inguinal hernias, and as a learning support tool in medical, nursing, and healthcare courses.

Technical Differentiators:
* Half life-size representation for better visualization of structures.
* Durable synthetic material ensures the model's longevity.
* Comes with an interactive 3D anatomical model with augmented reality.

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 comparative analysis of anatomical structures and offering opportunities for continuing education in anatomy, physiology, and pathophysiology.

Technical Specifications:
* Scale: Half life-size
* Material: Durable synthetic

Main Structures:

Hernial sac: It is an evagination or pouch that forms from the parietal peritoneum (the lining of the abdominal cavity) through an opening or weak point in the abdominal wall. It contains the herniated contents.

Herniated content: Refers to the tissues or organs that protrude into the hernial sac through the opening in the abdominal wall. It may include parts of the small intestine, omentum (a fold of fatty tissue that covers the abdominal organs), or, in some cases, other abdominal organs.

Inguinal canal: It is an oblique passage located in the inguinal region, extending from the deep (internal) inguinal ring to the superficial (external) inguinal ring. It contains the spermatic cord in men and the round ligament of the uterus in women, as well as nerves and blood vessels.

Layers of the abdominal wall: The abdominal wall is composed of several layers, including the skin, subcutaneous tissue, muscles (external oblique, internal oblique, transversus abdominis), transversalis fascia, and peritoneum. Each layer plays an important role in protecting the internal organs and maintaining the structural integrity of the abdomen.

External oblique muscle/aponeurosis: The external oblique muscle is the most superficial muscle of the lateral abdominal wall. Its fibers run obliquely downwards and inwards. The aponeurosis of the external oblique forms the anterior part of the rectus sheath and contributes to the formation of the inguinal ligament.

Internal oblique muscle: Located beneath the external oblique, the internal oblique muscle has fibers that run obliquely upwards and inwards, in the opposite direction to those of the external oblique. It assists in trunk flexion and rotation.

Transversus abdominis muscle: It is the deepest muscle of the lateral abdominal wall. Its fibers run transversely around the abdomen, providing support and stabilization for the trunk and assisting in abdominal compression.

Transversalis fascia: It is a layer of connective tissue that lines the inner surface of the

transversus abdominis muscle and is located between this muscle and the peritoneum. It contributes to the strength and support of the abdominal wall.

Peritoneum: It is a serous membrane that lines the abdominal cavity and covers most of the abdominal organs. It secretes a lubricating fluid that allows smooth movement of the organs over each other.

Pubic bone: It is one of the three bones that make up the hip (iliac) bone. It forms the anterior and inferior part of the pelvis and articulates with the pubic bone on the opposite side at the pubic symphysis.

Urinary bladder: It is a hollow muscular organ located in the pelvis, responsible for storing urine produced by the kidneys. When full, the bladder expands and sends signals to the brain to indicate the need to urinate.

Rectum: It is the final portion of the large intestine, located between the sigmoid colon and the anus. It stores feces before they are eliminated from the body through the anus.

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.

About Anatomical Models:
They are developed with resin replication technology, addressing the shortage of natural anatomical parts 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:

- Hernia sac
- Herniated content
- Inguinal canal
- Abdominal wall layers
- External oblique muscle/aponeurosis
- Internal oblique muscle
- Transversus abdominis muscle
- Transversalis fascia
- Peritoneum

- Pubic bone
- Urinary bladder
- Rectum