



## **MG35589 | HUMAN INTESTINE WITH PATHOLOGIES**

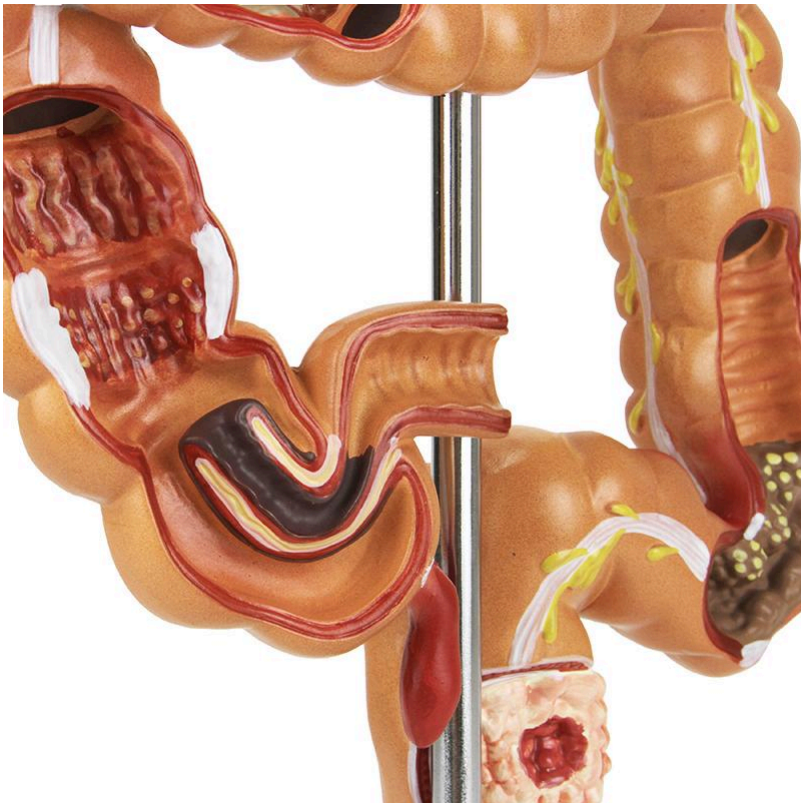


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Small-scale model of the large intestine, displaying the ascending, transverse, and sigmoid colon, along with the appendix and rectum. A representation of Crohn's disease is also displayed in a section of the small intestine.

**Applications:**

Ideal for studying the anatomy of the large intestine and for understanding the pathologies that affect it. Learning support tool in anatomy, physiology, and pathophysiology.

**Technical Differentiators:**

Comes with an interactive 3D anatomical model with augmented reality, encouraging learning and visual support. Allows comparative analysis of the structure of individual organs.

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

**Technical Specifications:**

\* Scale: Reduced

\* Anatomical Structures Displayed: Ascending, transverse, and sigmoid colon, appendix, rectum, and an area of the small intestine with Crohn's Disease.

**Main Structures:**

**Colon Cancer (Mass Type):** Mass-type colon cancer manifests as a bulky tumor formation that projects into the lumen of the colon. This mass can partially or completely obstruct the colon, leading to symptoms such as abdominal pain, changes in bowel habits, and rectal bleeding.

**Intestinal Adhesions:** Intestinal adhesions are fibrous bands that form between intestinal loops or between the intestine and other abdominal organs. They can result from previous surgeries, inflammations, or infections, and can cause intestinal obstruction, abdominal pain, and difficulty passing stools.

**Ulcerative Colitis:** Ulcerative colitis is a chronic inflammatory disease of the large intestine that causes inflammation and ulceration of the inner lining of the colon and rectum. Symptoms include diarrhea with blood, abdominal pain, urgency to defecate, and weight loss.

**Crohn's Disease:** Crohn's disease is another chronic inflammatory bowel disease that can



affect any part of the gastrointestinal tract, from the mouth to the anus. It causes deep inflammation of the intestinal wall, leading to symptoms such as abdominal pain, diarrhea, rectal bleeding, fatigue, and weight loss.

**Intussusception and Necrotic Loop:** Intussusception occurs when a segment of the intestine invaginates into another adjacent segment, like a telescope. This can lead to intestinal obstruction and, if left untreated, to necrosis (death) of the invaginated intestinal loop due to interruption of blood supply.

**Appendicitis:** Appendicitis is the inflammation of the appendix, a small finger-shaped organ located in the cecum, the first part of the large intestine. The inflammation is usually caused by an obstruction of the appendix, leading to abdominal pain, nausea, vomiting, and fever.

**Colon Cancer (Invasive):** Invasive colon cancer is a type of cancer that has spread beyond the superficial layer of the colon and invaded deeper layers of the intestinal wall or adjacent organs. It can spread to the lymph nodes and other organs, making treatment more challenging.

**Rectal Cancer (Ulcerative Type):** Ulcerative-type rectal cancer presents as an ulcer or open sore in the lining of the rectum. This ulcer can bleed and cause pain, as well as other symptoms such as changes in bowel habits and tenesmus (feeling of needing to defecate even when the rectum is empty).

#### **Smart Tags:**

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

#### **Abdominal sound diagnostics:**

- Normal
- Normal Borborygmi
- Normal Gurgling
- Diarrhea
- Hyperactive
- Hypoactive
- Obstruction
- Absent

**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 astructures.



**List of all visible structures:**

- Colon Cancer (mass type)
- Intestinal Adhesions
- Ulcerative Colitis
- Crohn's Disease
- Intussusception and Necrotic bowel
- Appendicitis
- Colon Cancer (Invasive)
- Rectal Cancer (ulcerative type)