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Model of GI Topography and Mesenteries

Introduction: With this model, you will trace the flow of ingesta through the GI tract and identify the mesentery for each GI organ.

Objectives:

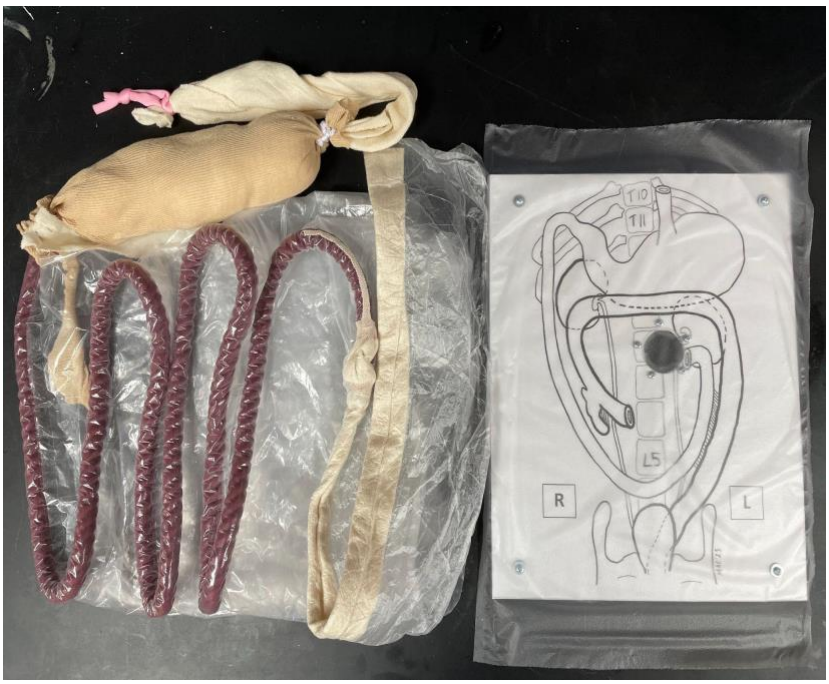
- ☐ Describe the flow of ingesta through the GI tract.
- ☐ Identify each important anatomical structure (bolded term), including organs, sphincters, and flexures.
- ☐ Identify the mesentery for each GI organ.
- ☐ Orient the GI tract correctly in the abdomen and apply your topographic understanding to build the model.

Instructions:

1. Investigate your GI model. Determine which is the proximal end with the tongue, and which is the distal end with the colon.

2. Using the list below, follow the flow of ingesta through the entire GI tract, identifying each organ, sphincter, and flexure on the model (base and simulated GI tract).

- ☐ **Esophagus**
- ☐ **Stomach:**
  - ☐ **Cardia**
  - ☐ **Fundus**
  - ☐ **Body**
  - ☐ **Pyloric part**
  - ☐ **Pylorus**
- ☐ **Duodenum:**
  - ☐ **Cranial duodenal flexure**
  - ☐ **Descending duodenum**
  - ☐ **Caudal duodenal flexure**
  - ☐ **Ascending duodenum**
  - ☐ **Duodenojejunal flexure**
  - ☐ **Jejunum**
  - ☐ **Ileum**
  - ☐ **Cecum (blind- ended pouch)**
  - ☐ **Colon**
    - ☐ **Ascending colon**



- ☐ **Right colic flexure**
- ☐ **Transverse colon**
- ☐ **Left colic flexure**
- ☐ **Descending colon**

3. Identify the mesentery for each GI organ, starting with the duodenum.

- ☐ **Mesoduodenum**
- ☐ **Mesentery (the)**
- ☐ **Root of the mesentery**
- ☐ **Duodenocolic fold (a ligament)**
- ☐ **Mesocolon**

4. View the video of GI Topography Model Assembly.
5. Assemble the model.
   - ☐ Carefully press the esophagus, stomach, and duodenum of the GI model onto the base using the drawing as a guide.
   - ☐ Arrange the mesoduodenum centrally so the ends are towards the hole.
   - ☐ Place the ileum and cecum roughly in place on the board, folding the jejunum roughly in half along its length between the duodenojejunal flexure and cecum.
   - ☐ Smooth out THE mesentery and begin to roll the jejunum counterclockwise from the fold (halfway point) toward the duodenum creating the root of the mesentery.
   - ☐ Secure the root of the mesentery in the hole in the cardboard.
   - ☐ Ensure the cecum is in the correct location. Adjust the model, if needed.
   - ☐ Arrange the colon and the mesocolon.
   - ☐ Identify and/or build the duodenocolic fold.

6. Now that you have a model recreating the 3D configuration of the GI tract:
   - ☐ Follow the flow of ingesta through the entire GI tract again, identifying each organ, sphincter, and flexure along the way.
   - ☐ Identify where each organ is located topographically within the abdomen in such detail that you could locate where you would place an ultrasound probe on the abdominal wall of a dog to scan that organ.
7. Carefully deconstruct the model for the next group.
