What are the Stomach Anatomy and Regions?

Worksheet

The stomach comprises four regions: cardia (inlet from esophagus), fundus (upper dome), body (main cavity), and pylorus (outlet to duodenum via pyloric sphincter). The greater curvature is the longer, convex left border; the lesser curvature is the shorter, concave right border. The wall has mucosa, submucosa, muscularis (3 layers: circular, longitudinal, oblique), and serosa (visceral peritoneum).

Questions

1. Which stomach region is the largest and performs most of the mixing?

A) Cardia
B) Fundus
C) Body
D) Pylorus

2. The greater omentum attaches to which curvature?

A) Lesser curvature
B) Greater curvature
C) Both equally
D) Neither; it attaches to the pylorus

3. How many muscular layers does the stomach wall have?

A) 1 (circular only)
B) 2 (circular and longitudinal)
C) 3 (oblique, circular, longitudinal)
D) 4 (with an additional elastic layer)

4. Which organ does the gastrohepatric ligament connect to the stomach?

A) Spleen
B) Liver
C) Pancreas
D) Diaphragm

5. Name the four anatomical regions of the stomach from inlet to outlet.

6. What is the difference between the greater and lesser curvatures?

7. Why does the stomach have three layers of muscle rather than two?

8. Define: Name the four stomach regions.

9. Define: What is the greater curvature?

10. Define: What is the lesser curvature?

Answer Key

1. C) Body - The body is the largest region and performs most of the churning and mixing of food with gastric juices.

2. B) Greater curvature - The greater omentum ('fatty apron') attaches to the greater curvature and drapes over the small intestines.

3. C) 3 (oblique, circular, longitudinal) - The stomach has three muscular layers: oblique (inner, unique), circular (middle), and longitudinal (outer). This enables powerful churning.

4. B) Liver - The gastrohepatric ligament (part of lesser omentum) contains the hepatic artery and portal vein, connecting the lesser curvature to the liver.

5. 1) Cardia - inlet from esophagus via lower esophageal sphincter. 2) Fundus - upper dome, food storage. 3) Body - largest chamber, main digestion. 4) Pylorus - outlet funnel leading to duodenum via pyloric sphincter.

6. Greater curvature: convex left border (~40 cm long), attachment for greater omentum, nutrient-rich blood supply. Lesser curvature: concave right border (~12 cm), attachment for lesser omentum and gastrohepatric ligament.

7. The oblique muscle layer (unique to the stomach, especially fundus) allows the stomach to churn and mix food efficiently. Combined with circular and longitudinal layers (found throughout GI tract), the three layers enable powerful churning motions and controlled propulsion toward the pylorus.

8. Cardia (inlet), fundus (upper dome), body (main cavity), and pylorus (outlet).

9. The longer, convex left border of the stomach (~40 cm). It attaches the greater omentum and has rich blood supply.

10. The shorter, concave right border (~12 cm). It attaches the lesser omentum and the gastrohepatric ligament, which contains hepatic vessels.