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EDUCATION SERIES

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The following slides were presented during the *Nancy and Bill Norton Education Series* Event at the University of Michigan Food for Life Kitchen. To view this presentation and the all videos available during this program, please visit <http://bit.ly/NES2020MI>.



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GUT MATTERS 101

From top to bottom

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Digestive system

Gut

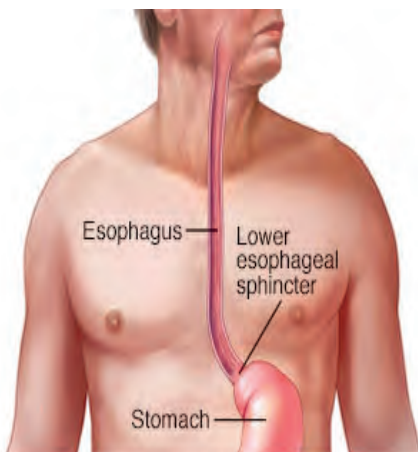
GI tract

A series of organs



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Esophagus

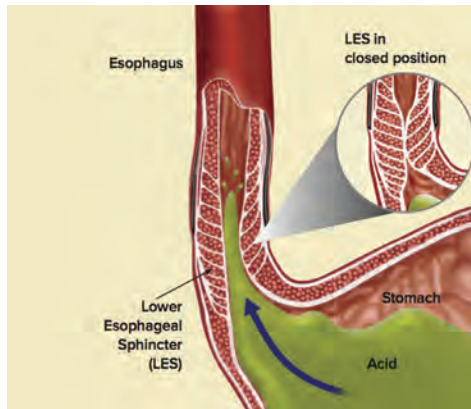


- Muscular tube connecting the throat to the stomach
- Waves of contractions- “peristalsis”
- Lower esophageal sphincter (LES)



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Common Disorders of the Esophagus

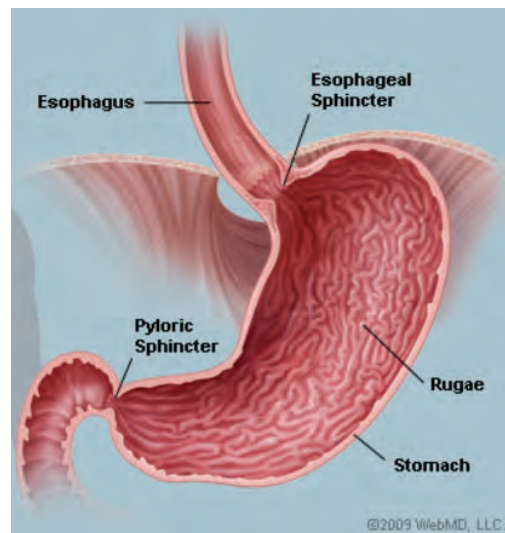


- GERD (gastroesophageal reflux disease)
- Strictures
- Barrett's Esophagus
- Motility disorders



Stomach

- Strong muscular walls
- Holds food
- Mixes with acid and enzymes
- Pyloric sphincter/pylorus



Common Stomach Disorders

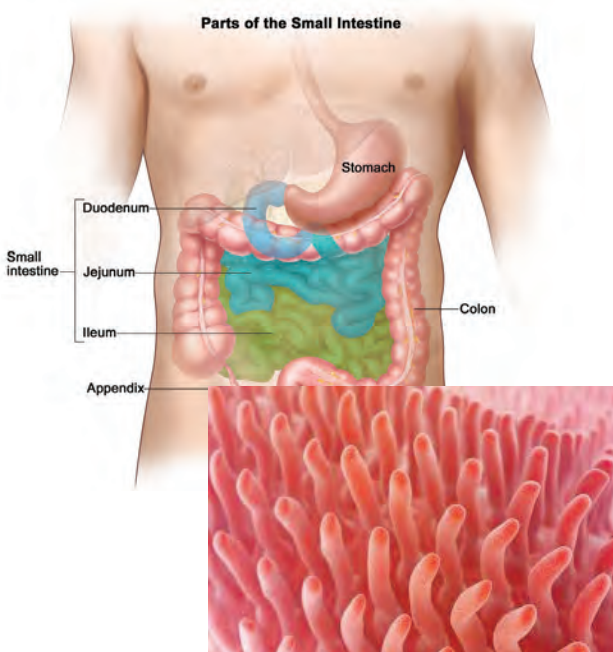


- Peptic ulcer disease
- Gastroparesis
 - Slow stomach emptying
- Functional dyspepsia



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Small Bowel

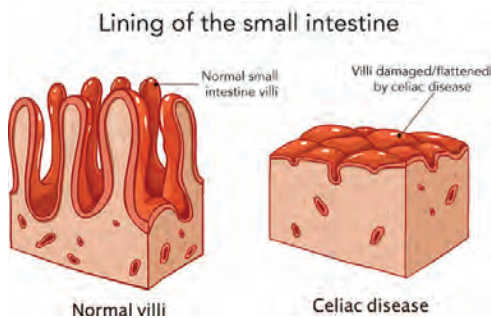


- Longest portion
 - 20 feet long
- 3 segments
 - Duodenum
 - Jejunum
 - Ileum
- Mixing and absorption of nutrients
 - Villi



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Common Disorders of the Small Bowel

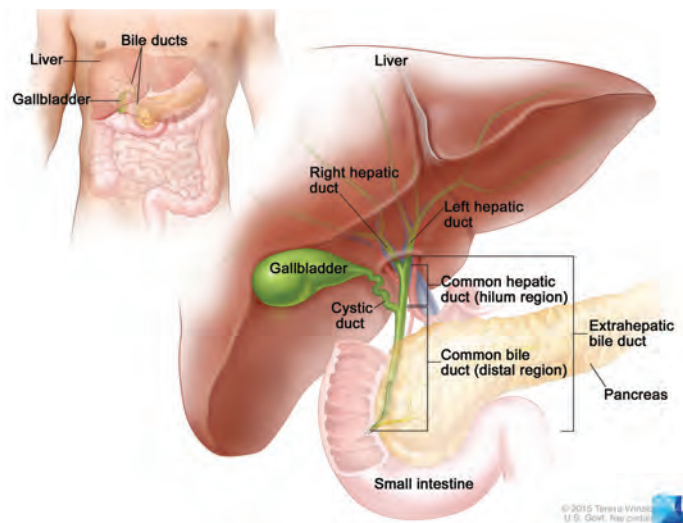


- Celiac disease
- Crohn's disease
- Infections
- Irritable bowel syndrome

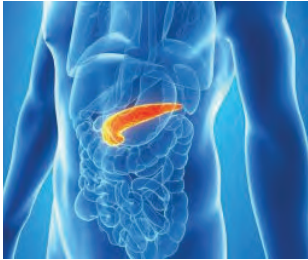


Pancreas & Biliary System

- **Pancreas**
 - Produces digestive enzymes that help break down proteins, carbohydrates and fats.
- **Liver**
 - Produces bile, a solution that helps you digest fats.
- **Gallbladder**
 - Stores bile



Pancreas & Biliary System Disorders



- Pancreatitis
- Pancreatic insufficiency
- Pancreatic cysts/cancer



- Fatty liver disease
- Cirrhosis



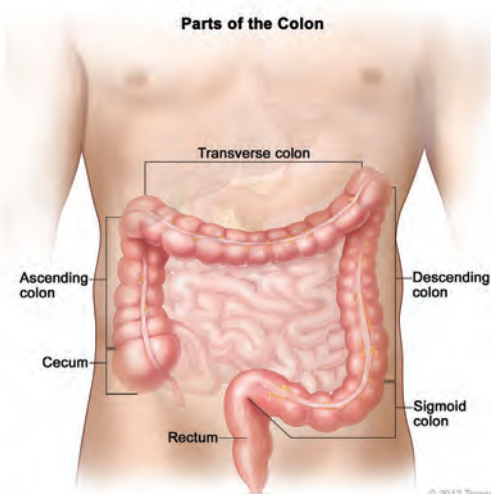
- Gallstones
- Infection



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Colon

- 5- to 7-foot-long muscular tube that connects the small intestine to the rectum
- Processes waste so that defecation is easy and convenient
- Fluid absorption



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Common Colonic Conditions

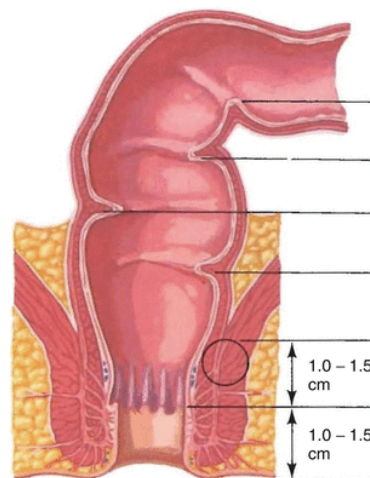
- Constipation
- Diarrhea
- Irritable bowel syndrome
- Ulcerative Colitis
- Colon polyps and cancer



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Rectum & Anus

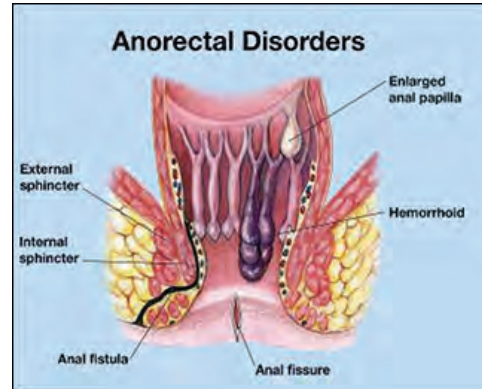
- **Rectum:**
 - connects the colon to the anus.
 - sends signals to the brain if there is stool to be evacuated, and holds stool until evacuation can happen.
- **Anus:**
 - Pelvic floor muscles
 - Two anal sphincters
 - internal and external
 - Control defecation



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Common Anorectal Disorders

- Anal fissures
- Hemorrhoids
- Fecal incontinence
- Pelvic floor dyssynergia
- Rectal prolapse



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