Unit 8 Notes part 3: Digestive Disorders

DIAGNOSTIC TESTS:

- **Endoscopy**: enables your surgeon to examine the lining of the esophagus (swallowing tube), stomach and duodenum (first portion of the small intestine).
- **Colonoscopy**: Looking for & will remove polyps (small growth protruding from mucus membrane); want to remove them before they become cancerous
  - age of first colonoscopy: 50 years old OR 10 years prior to close relative’s diagnosis of colon cancer

**Bacterial Infections causing food poisoning:**

- **E. coli** - *Escherichia coli* is a bacteria that causes severe cramps and diarrhea. *E. coli* is a leading cause of bloody diarrhea.
  - Comes from undercooked ground beef, contaminated water, unpasteurized milk, working with cattle
- **Salmonella** – A major cause of food poisoning
  - Causes diarrhea
  - Comes from raw and undercooked food (raw eggs, chicken, food left out)

**Probiotics:**

- Probiotics are bacteria that help maintain the natural balance of organisms (microflora/microbiome) in the intestines.
- The normal human digestive tract contains about 400 types of probiotic bacteria that reduce the growth of harmful bacteria and promote a healthy digestive system.

**GERD:**

- Gastroesophageal reflux disease (GERD) is a disorder affecting the lower esophageal sphincter.
- Reflux refers to a reverse flow of the stomach’s contents into the esophagus.
- Most people living with GERD suffer from indigestion, heartburn or acid reflux.
- Treated with heartburn medication, or surgery of cardiac sphincter

**Peptic Ulcers:**

- **Description**: a sore in the lining of the stomach or duodenum, where hydrochloric acid and pepsin are present. The unprotected tissue comes into contact with acidic gastric juice. OUCH!
- **Symptoms**: abdominal pain, bloating, nausea, and loss of appetite.
- **Causes**: an acid-resistant bacterium, *Helicobacter pylori*
- **Treatments**: antibiotics that kill the bacteria, and medications that reduce acidity in the stomach.
Inflammatory Bowel Disease (IBD):

Crohn’s Disease – Autoimmune disease that attacks the alimentary canal anywhere from the mouth to the anus

- **Symptoms** – diarrhea, abdominal pain, bloody stool, abscesses, fistulas
- Patients go through periods of “flares” and remission
- Treated with anti-inflammatory drugs delivered to intestines, steroids, immunosuppressants, or biologics

Colitis - Attacks the colon.

- Symptoms include loose and bloody stools, cramps, and abdominal pain.
- In severe cases it may be necessary for surgeons to remove the affected part of the colon and create a new external opening for digestive waste.

Irritable Bowel Syndrome (IBS):

- common problem with the intestines.
  - Exact cause unknown; intestines squeeze too hard or not hard enough and cause food to move too quickly or too slowly through the intestines.
  - IBS usually begins around age 20 and is more common in women.
  - IBS is also called functional bowel syndrome, irritable colon, spastic bowel and spastic colon. It’s not the same as inflammatory bowel diseases like ulcerative colitis.

- Common symptoms of IBS:
  - Bloating and gas
  - Mucus in the stool
  - Constipation
  - Diarrhea, especially after eating or first thing in the morning
  - Feeling like you still need to have a bowel movement after you’ve already had one
  - Feeling a strong urge to have a bowel movement
  - Abdominal pain and cramping that may go away after having a bowel movement

- How is IBS treated?
  - The best way to handle IBS is to eat a healthy diet, avoid foods that seem to make you feel worse and find ways to handle your stress.

Celiac Disease:

- Celiac disease is a genetic disorder that causes problems in your intestines when you eat gluten, which is in wheat, rye, barley and oats.
  - Immune system response to gluten
- Presence of gluten damages the villi of people with celiac disease. This prevents the absorption of nutrients
- Can control celiac disease just by not eating any gluten.
  - Can reverse some of the damage caused by celiac disease
  - Celiac can be diagnosed through an endoscopy, blood tests, and if symptoms disappear on a gluten free diet
Hemorrhoids:

- Swollen veins in the anal canal.
  - Common problem & painful, but it's usually not serious
- Cause: Too much pressure on the veins in the pelvic and rectal area.
  - Straining during bowel movement
  - Pregnancy

Colon Cancer:

- Cancerous cells (tumors) are present in the wall of the large intestine (colon).
- Symptoms: The passage of bright red blood in the stool or a change in the frequency, consistency or thickness of stool are the most typical symptoms.
- Treatment: resection surgery where the diseased segment is removed and the bowel on either side of the cancer is reunited.

Appendicitis:

- Occurs when the appendix becomes blocked, often by stool, a foreign body, or cancer. Blockage may also occur from infection, since the appendix swells in response to any infection in the body
- Medical emergency that requires prompt surgery to remove the appendix.
- Left untreated, an inflamed appendix will eventually burst, or perforate, spilling infectious materials into the abdominal cavity, which can be fatal unless treated with strong antibiotics.

Type I vs. Type II Diabetes: leads to very high levels of blood glucose

- Type I: Immune system destroys cells in pancreas that make insulin so no insulin is made.
- Type II: not enough insulin released into blood plasma or body cells don't respond to insulin that is produced → caused by unhealthy lifestyle (overweight, poor eating habits, lack of exercise)

Hernia:

- An organ pushes through an opening in the muscle or tissue that holds it in place.
  - Ex: the intestines may break through a weakened area in the abdominal wall