***Pharmacology***

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**Drugs acting on digestive system**

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**DRUGS ACTING ON DIGESTIVE SYSTEM**

**The major parts of the digestive system**

Mouth

Salivary glands.

Pharynx.

Esophagus.

Stomach.

Small Intestine.

Large Intestine.

Rectum.

Accessory **digestive organs**: liver, gallbladder, pancreas.

Digestion is the complex process of turning the food you eat into nutrients, which the body uses for energy, growth and cell repair needed to survive. The digestion process also involves creating waste to be eliminated.

The digestive tract (or gastrointestinal tract) is a long twisting tube that starts at the mouth and ends at the [anus](https://www.webmd.com/digestive-disorders/picture-of-the-anus). It is made up of a series of muscles that coordinate the movement of food and other cells that produce enzymes and hormones to aid in the breakdown of food. Along the way are other 'accessory' organs that are needed for digestion: the gallbladder, [liver](https://www.webmd.com/digestive-disorders/picture-of-the-liver), and the [pancreas](https://www.webmd.com/digestive-disorders/picture-of-the-pancreas).

**Disease of the digestive system**

1. **Gastroesophageal Reflux Disease (GERD) –**Severe “heartburn” in laymen’s language. Weakness of the valve between the esophagus and stomach may allow stomach acid to reflux (regurgitate, backup) into the esophagus and irritate and inflame the lining. This results in chest pain which can mimic that of angina (pain of cardiac ischemia or an MI).
2. **Irritable Bowel Syndrome (IBS)**

Irritable bowel syndrome (IBS) is a group of symptoms that occur together, including repeated pain in your abdomen and changes in your bowel movements, which may be diarrhea, constipation, or both. With IBS, you have these symptoms without any visible signs of damage or disease in your digestive tract.

1. **Chronic Constipation** Constipation is difficult or infrequent passage of stool. If you have bowel movements less than three times a week, you likely are constipated. Chronic constipation affects about 63 million people in the United States. A common cause of constipation is not getting enough fiber in your diet. The main symptom of constipation is straining to go. In most cases, increasing fiber, fluids, and exercise will solve this condition. Use laxatives only as a temporary solution.
2. **Inflammatory Bowel Disease (IBD**)

 (IBD) refers to long-lasting inflammation in the digestive tract. Crohn’s disease and ulcerative colitis are the two most common types of inflammatory bowel disease. IBD affects about 1.5 million Americans, including Crohn’s disease and ulcerative colitis. They are [autoimmune diseases](https://www.healthgrades.com/right-care/symptoms-and-conditions/autoimmune-diseases), which means there is an abnormal immune system reaction. IBD causes irritation and swelling, resulting in diarrhea, [abdominal pain](https://www.healthgrades.com/right-care/symptoms-and-conditions/abdominal-pain), loss of appetite, fever, and weight loss. Crohn’s disease mainly affects the end of the small bowel and the beginning of the colon. [Ulcerative colitis](https://www.healthgrades.com/right-care/ulcerative-colitis/ulcerative-colitis) affects just the colon and rectum. Drugs that block your immune response can treat IBD. Sometimes surgery is necessary. . .

1. **Peptic Ulcer Disease (PUD) and Gastritis**

PUD is an open sore in the lining of the stomach or upper part of the small intestine. It affects over 15 million Americans. [Gastritis](https://www.healthgrades.com/right-care/digestive-health/gastritis) is inflammation of the stomach lining. These two conditions have similar symptoms, including stomach pain and [nausea](https://www.healthgrades.com/right-care/digestive-health/nausea), and similar causes. A bacterial infection— *H. pylori*—is the most common cause of PUD and often causes chronic gastritis. NSAIDs—including aspirin, ibuprofen and naproxen—are another common cause. Antacids and proton pump inhibitors often help. Antibiotics treat [*H. pylori*](https://www.healthgrades.com/right-care/infections-and-contagious-diseases/helicobacter-pylori) infection.

1. **Hemorrhoids**. [Hemorrhoids](https://www.healthgrades.com/right-care/hemorrhoid-surgery/hemorrhoids) are painful, swollen blood vessels in the anal canal. Symptoms include pain, itching, and bright red blood after a bowel movement. Constipation and [pregnancy](https://www.healthgrades.com/right-care/pregnancy/pregnancy) are major causes. Hemorrhoids are common, with 75% of people older than 45 having them. It helps to avoid constipation by adding fiber and plenty of fluids to your diet. Try [hemorrhoid](https://www.healthgrades.com/right-care/hemorrhoid-surgery/hemorrhoids) cream, suppositories, or a warm bath to relieve [pain](https://www.healthgrades.com/right-care/symptoms-and-conditions/pain) and itchiness. It may feel a little embarrassing to talk about hemorrhoids, but don’t let that stop you from seeking help if hemorrhoids persist.

**The first sign of problems in the digestive tract often includes one or more of the following symptoms:**

**Bleeding.**

**Bloating.**

**Constipation.**

**Diarrhea.**

**Heartburn.**

**Incontinence.**

**Nausea and vomiting.**

**Pain in the belly.**

**-Treatment of digestive tract disorders**

**A**- Diet and lifestyle changes can make a big difference:

1. Cut back on fatty foods.
2. Avoid fizzy drinks.
3. Eat and drink slowly.
4. Quit smoking.
5. Don't chew gum.
6. Exercise more.
7. Avoid foods that cause gas.
8. Avoid sweeteners that cause gas such as fructose and sorbitol.

B- **Classes of drugs used to improve GI function include**:

• peptic ulcer drugs

• adsorbent, antiflatulent, and digestive drugs

• obesity drugs

• antidiarrheal and laxative drugs

• antiemetic and emetic drugs.