GASTROINTESTINAL DISEASES

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GERD, diarrhea and colorectal cancer are examples of gastrointestinal diseases. When examined, some diseases show nothing wrong with the GI tract, but there are still symptoms. Other diseases have symptoms, and there are also visible irregularities in the GI tract. Most gastrointestinal diseases can be prevented and/or treated.

Gastrointestinal diseases affect the gastrointestinal (GI) tract from the mouth to the anus. There are two types: functional and structural. Some examples include nausea/vomiting, food poisoning, lactose intolerance and diarrhea. Functional diseases are those in which the GI tract looks normal when examined, but doesn't move properly. They are the most common problems affecting the GI tract (including the colon and rectum). Constipation, irritable bowel syndrome (IBS), <u>nausea</u>, food poisoning, gas, bloating, GERD and diarrhea are common examples.

Many factors may upset your GI tract and its motility (ability to keep moving), including:

• Eating a diet low in fiber.

• Not getting enough exercise.

• Traveling or other changes in routine.

• Eating large amounts of dairy products.

• Stress.

• Resisting the urge to have a bowel movement, possibly because of hemorrhoids.

• Overusing anti-diarrheal medications that, over time, weaken the bowel muscle movements called motility.

• Taking antacid medicines containing calcium or aluminum.

• Taking certain medicines (especially antidepressants, iron pills and strong pain medicines such as narcotics).

• Pregnancy.

Structural gastrointestinal diseases are those where your bowel looks abnormal upon examination and also doesn't work properly. Sometimes, the structural abnormality needs to be removed surgically. Common examples of structural GI diseases include strictures, stenosis, hemorrhoids, diverticular disease, colon polyps, colon cancer and inflammatory bowel disease.

<u>Constipation</u>, which is a functional problem, makes it hard for you to have a bowel movement (or pass stools), the stools are infrequent (less than three times a week), or incomplete. Constipation is usually caused by inadequate "roughage" or fiber in your diet, or a disruption of your regular routine or diet. Constipation causes you to strain during a bowel movement. It may cause small, hard stools and sometimes anal problems such as fissures and hemorrhoids. Constipation is rarely the sign that you have a more serious medical condition.

You can treat your constipation by:

- Increasing the amount of fiber and water to your diet.
- Exercising regularly and increasing the intensity of your exercises as tolerated.

• Moving your bowels when you have the urge (resisting the urge causes constipation).

If these treatment methods don't work, laxatives can be added. Note that you should make sure you are up to date with your colon cancer screening. Always follow the instructions on the laxative medicine, as well as the advice of your healthcare provider.

<u>Irritable bowel syndrome</u> (also called spastic colon, irritable colon, IBS, or nervous stomach) is a functional condition where your colon muscle contracts more or less often than "normal." Certain foods, medicines and emotional stress are some factors that can trigger IBS.

Symptoms of IBS include:

• Abdominal pain and cramps.

- Excess gas.
- Bloating.

• Change in bowel habits such as harder, looser, or more urgent stools than normal.

• Alternating constipation and diarrhea.

Treatment includes:

- Avoiding excessive caffeine.
- Increasing fiber in your diet.
- Monitoring which foods trigger your IBS (and avoiding these foods).
- Minimizing stress or learning different ways to cope with stress.
- Taking medicines as prescribed by your healthcare provider.
- Avoiding dehydration, and hydrating well throughout the day.
- Getting high quality rest/sleep.

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Hemorrhoids are dilated veins in the anal canal, structural disease. They're swollen blood vessels that line your anal opening. They are caused by chronic excess pressure from straining during a bowel movement, persistent diarrhea, or pregnancy. There are two types of hemorrhoids: internal and external.Internal hemorrhoids are blood vessels on the inside of your anal opening. When they fall down into the anus as a result of straining, they become irritated and start to bleed. Ultimately, internal hemorrhoids can fall down enough to prolapse (sink or stick) out of the anus.

Treatment includes:

• Improving bowel habits (such as avoiding constipation, not straining during bowel movements and moving your bowels when you have the urge).

• Your healthcare provider using ligating bands to eliminate the vessels.

• Your healthcare provider removing them surgically. Surgery is needed only for a small number of people with very large, painful and persistent hemorrhoids. External hemorrhoids are veins that lie just under the skin on the outside of the anus. Sometimes, after straining, the external hemorrhoidal veins burst and a blood clots form under the skin. This very painful condition is called a "pile."

Treatment includes removing the clot and vein under local anesthesia and/or removing the hemorrhoid itself. Anal fissures are also a structural disease. They are splits or cracks in the lining of your anal opening. The most common cause of an anal fissure is the passage of very hard or watery stools. The crack in the anal lining exposes the underlying muscles that control the passage of stool through the anus and out of the body. An anal fissure is one of the most painful problems because the exposed muscles become irritated from exposure to stool or air, and leads to intense burning pain, bleeding, or spasm after bowel movements. Initial treatment for anal fissures includes pain medicine, dietary fiber to reduce the occurrence of large, bulky stools and sitz baths (sitting in a few inches of warm water). If these treatments don't relieve your pain, surgery might be needed to repair the sphincter muscle. Perianal abscesses, also a structural disease, can occur when the tiny anal glands that open on the inside of your anus become blocked, and the bacteria always present in these glands causes an infection. When pus develops, an abscess forms. Treatment includes draining the abscess, usually under local anesthesia in the healthcare provider's office.

Ananal fistula – again, a structural disease – often follows drainage of an abscess and is an abnormal tube-like passageway from the anal canal to a hole in the skin near the opening of your anus. Body wastes traveling through your anal canal are diverted through this tiny channel and out through the skin, causing itching and

irritation. Fistulas also cause drainage, pain and bleeding. They rarely heal by themselves and usually need surgery to drain the abscess and "close off" the fistula.

Other perianal infections

Sometimes the skin glands near your anus become infected and need to be drained, like in this structural disease. Just behind the anus, abscesses can form that contain a small tuft of hair at the back of the pelvis (called a pilonidal cyst). Sexually transmitted diseases that can affect the anus include anal warts, herpes, AIDS, chlamydia and gonorrhea.

Diverticular disease

The structural disease diverticulosis is the presence of small outpouchings (diverticula) in the muscular wall of your large intestine that form in weakened areas of the bowel. They usually occur in the sigmoid colon, the high-pressure area of the lower large intestine. Diverticular disease is very common and occurs in 10% of people over age 40 and in 50% of people over age 60 in Western cultures. It is often caused by too little roughage (fiber) in the diet. Diverticulosis can sometimes develop/progress into diverticulitis. Complications of diverticular disease happen in about 10% of people with outpouchings. They include infection or inflammation (diverticulitis), bleeding and obstruction. Treatment of diverticulitis includes treating the constipation and sometimes antibiotics if really severe. Surgery is needed as last resort in those who have significant complications to remove the involved diseased segment of the colon.

Colon polyps and cancer

Each year, 130,000 Americans are diagnosed with <u>colorectal cancer</u>, the second most common form of cancer in the United States. Fortunately, with advances in early detection and treatment, colorectal cancer is one of the most curable forms of the disease. By using a variety of screening tests, it is possible to prevent, detect and treat the disease long before symptoms appear.

The importance of screening

Almost all colorectal cancers begin as polyps, benign (non-cancerous) growths in the tissues lining your colon and rectum. Cancer develops when these polyps grow and abnormal cells develop and start to invade surrounding tissue. Removal of polyps can prevent the development of colorectal cancer. Almost all precancerous polyps can be removed painlessly using a flexible lighted tube called a colonoscope. If not caught in the early stages, colorectal cancer can spread throughout the body. More advanced cancer requires more complicated surgical techniques. Most early forms of colorectal cancer do not cause symptoms, which makes screening especially important. When symptoms do occur, the cancer might already be quite advanced.

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Symptoms include blood on or mixed in with the stool, a change in normal bowel habits, narrowing of the stool, abdominal pain, weight loss, or constant tiredness.

Most cases of colorectal cancer are detected in one of four ways:

• By screening people at average risk for colorectal cancer beginning at age 45.

• By screening people at higher risk for colorectal cancer (for example, those with a family history or a personal history of colon polyps or cancer).

• By investigating the bowel in patients with symptoms.

• A chance finding at a routine check-up.

Early detection is the best chance for a cure.

Colitis . There are several types of colitis, which are conditions that cause an inflammation of the bowel. These include:

- Infectious colitis.
- <u>Ulcerative colitis</u> (cause unknown).
- Crohn's disease (cause unknown).
- Ischemic colitis (caused by not enough blood going to the colon).
- Radiation colitis (after radiotherapy).

Colitis causes diarrhea, rectal bleeding, abdominal cramps and urgency (frequent and immediate need to empty the bowels). Treatment depends on the diagnosis, which is made by colonoscopy and biopsy. Many diseases of the colon and rectum can be prevented or minimized by maintaining a healthy lifestyle, practicing good bowel habits and getting screened for cancer. A colonoscopy is recommended for average-risk patients at age 45. If you have a family history of colorectal cancer or polyps, a colonoscopy may be recommended at a younger age. Typically, a colonoscopy is recommended 10 years younger than the affected family member. (For example, if your brother was diagnosed with colorectal cancer or polyps at age 45, you should begin screening at age 35.

If you have symptoms of colorectal cancer you should consult your healthcare provider right away. Common symptoms include:

- A change in normal bowel habits.
- Blood on or in the stool that is either bright or dark.
- Unusual abdominal or gas pains.
- Very narrow stool.
- A feeling that the bowel has not emptied completely after passing stool.
- Unexplained weight loss.
- Fatigue.
- Anemia (low blood count).

Other types of gastrointestinal diseases

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There are many other gastrointestinal diseases. Some are discussed, but others are not covered here. Other functional and structural diseases include peptic ulcer disease, gastritis, gastroenteritis, celiac disease, <u>Crohn's disease</u>, gallstones, fecal incontinence, lactose intolerance, Hirschsprung disease, abdominal adhesions, Barrett's esophagus, appendicitis, indigestion (dyspepsia), intestinal pseudo-obstruction, pancreatitis, short bowel syndrome, Whipple's disease, Zollinger-Ellison syndrome, malabsorption syndromes and hepatitis.

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