What is irritable bowel syndrome or IBS?
Irritable bowel syndrome (IBS) is a common gastrointestinal problem that affects 10% to 20% of adults and children. Abdominal discomfort or pain is the main symptom, along with diarrhea and/or constipation or bloating. There is no significant inflammation or infection or blockage in the bowel. IBS symptoms can come and go over time and can vary in severity.

What are the symptoms of IBS?
People with IBS report recurrent abdominal pain or discomfort along with one or more of the following symptoms:
- A change in bowel habit, such as having constipation or diarrhea
- Less abdominal pain or discomfort after a bowel movement
- Excessive gas or bloating
The symptoms are usually experienced over several months. About 30% of people have mild symptoms, about 50% have moderately severe symptoms, and 20% have severe symptoms. Unfortunately, the symptoms reported by IBS patients are similar to the symptoms of many other common gastrointestinal problems. Hence, IBS may be missed or misdiagnosed, so it is important that you consult your doctor.

What are the types of IBS?
The altered pattern of bowel movements may consist of three common subtypes, although they may change over time.

Constipation-predominant IBS (IBS-C): In this subtype, you may predominantly experience hard stools or infrequent bowel movements or difficulty passing stools with a sense of incomplete emptying.

Diarrhea-predominant IBS (IBS-D): In this subtype, you may predominantly experience loose stools or an urgency to pass stools.

Constipation and diarrhea or mixed symptoms (IBS-M): In this subtype, you may experience both constipation and diarrhea.

What causes IBS?
The bowel is a long muscular tube that contracts (squeezes) and relaxes in an organized manner in order to digest and absorb food and to move waste from the body. Fortunately, most of us do not feel these muscle movements.

However, sometimes bowel contents may move along too quickly, resulting in diarrhea, or too slowly, resulting in constipation. If one area of the intestine squeezes and the next area fails to relax, there may be a temporary spasm as contents do not move, and this may cause pain. In healthy people, excessive intestinal activity that is the result of gastrointestinal infection may be felt as pain or cramping in the bowel. In people with IBS, even normal intestinal activity produces these same painful feelings. This increased perception in IBS is called visceral hypersensitivity. Sometimes, symptoms may be aggravated by stress. Stress may affect intestinal activity and the way in which intestinal signals are processed in the brain, and this may further contribute to IBS symptoms.

Because eating causes the bowel to contract and move food, many people with IBS usually experience symptoms like urgency, cramps, or diarrhea after eating.

What are the complications of IBS?
While troublesome, IBS is not life threatening and does not lead to cancer. Complications resulting from severe diarrhea may include dehydration, soreness in the anal area, and stool leakage. If eating food triggers pain and diarrhea, some people may eat less food and this may result in weight loss. If there is severe constipation, complications include hemorrhoids, anal fissure (tear in the anal opening), blockage of the rectum by stool, and stool leakage.

What tests are used to diagnose IBS?
There is no specific diagnostic test for IBS. If you have typical symptoms of IBS, your physical exam is normal, and you do not have signs or symptoms of other medical conditions, it may not be necessary to do any further tests.
However, because IBS can mimic other common gastrointestinal disorders, your doctor may recommend tests based on your symptoms, your age, and risk factors for other conditions that cause similar symptoms. Some features that may suggest a need for more testing include presence of anemia (low blood count), rectal bleeding, unintentional weight loss, a family history of colorectal cancer, inflammatory bowel disease or celiac disease, and pain occurring at nighttime.

If you have diarrhea, your doctor may order stool tests, blood tests, endoscopy (a test to look at the lining of your stomach), colonoscopy (a test to look at the lining of your colon), or X-ray tests such as CAT scan, ultrasound scan, or barium studies of your bowel.

If you have constipation, your doctor may order an X-ray of the abdomen, barium studies, colonoscopy, blood tests, or special tests to study the anal and colon muscle function.

If gas and bloating is a prominent feature, your doctor may order a test to assess for the presence of malabsorption (the intestine cannot absorb nutrients normally from food) like celiac disease (intolerance to gluten), or a condition called small intestinal bacterial overgrowth. Likewise, you may have breath tests to find out if you have lactose intolerance, a condition caused by the inability to digest milk or dairy products, or fructose intolerance, a condition caused by the inability to digest fructose or fruit sugar.

**How is IBS treated?**

Treating IBS can be challenging because of the variety of symptoms. There is no single medicine that helps all patients. Hence, treatment involves diet, lifestyle changes, and often medicines.

**Diet:** In some people, certain foods may cause symptoms. If so, avoiding these foods may improve symptoms. For example, avoiding dairy products can help people with lactose intolerance. In others, eating in general may trigger symptoms of pain or diarrhea but no specific type of food can be identified. Please talk to your doctor before trying to modify your diet.

**Fiber:** Fiber supplements may be useful for people with constipation and IBS. Sources include natural fiber in fresh fruit and vegetables. Other sources include psyllium, bran, and synthetic bulking agents. If you do not normally eat a high fiber diet, it is wise to slowly increase the amount of fiber to avoid gas, bloating and cramping. This will allow the digestive system to adapt to an increased dose and help determine the optimum amount your gut will handle. About 20 g of fiber per day is usually recommended.

**Medicines:**

**Spasm or pain:** Medicines that can relieve spasm in the intestine include hyoscyamine (Levsin®) or dicyclomine (Bentyl®).

**Constipation (IBS-C):** Several over-the-counter laxatives such as magnesium compounds (Milk of Magnesia) or polyethylene glycol (Miralax®) may be useful. Lubiprostone (Am报业za®) is an FDA-approved treatment for women with constipation-predominant IBS. This medicine is a chloride channel activator that increases fluid secretion inside the bowel, improves bowel movements and relieves IBS symptoms.

**Diarrhea (IBS-D):** Medicines such as loperamide (Imodium®) or diphenoxylate/atropine (Lomotil®) may decrease the severity of diarrhea. Aloversetron (Lotronex®) is a serotonin antagonist that is FDA-approved for the treatment of women with severe diarrhea-predominant IBS through a special prescriber program.

**What are alternative treatments?**

Your doctor may prescribe low doses of antidepressants to relieve pain, anxiety, and altered bowel habits. There is some evidence that antibiotics and probiotics may help to reduce IBS symptoms. These are not yet FDA-approved for IBS. Treatments that involve behavioral therapy, also called cognitive behavioral therapy, may help some people.

**Does surgery have a role in the treatment of IBS?**

Surgery has no role in the treatment of IBS.

**Are there any new or experimental therapies?**

Many medicines are under development or in research studies to help IBS. Rifaximin is an antibiotic that is approved for traveler’s diarrhea and complications of advanced liver disease and has been shown to be beneficial in some patients with IBS with diarrhea. However, this medicine has not yet been approved by the FDA for the treatment of IBS. Other medicines that are being developed for the treatment of IBS include linaclotide (GC-C agonist that induces intestinal secretion and decreases abdominal pain), prucalopride (a serotonin compound that stimulates intestinal activity), and probiotics (live bacteria that may have beneficial effects on intestinal function).