

# Irritable Bowel Syndrome (IBS)

## Introduction

Irritable bowel syndrome (IBS) is a chronic condition of the gastrointestinal tract. Its symptoms are abdominal pain and altered bowel habits with no identifiable cause.

IBS is the most common gastrointestinal condition and affects 10 to 20 percent of people in the general population most of whom do not seek medical help.

## Causes

A number of theories about the origin of IBS have been proposed but no definite cause has been identified. One theory is that it is caused by abnormal contractions of the colon and intestines but it is unclear whether this is a symptom or cause of the disorder.

It is also known that IBS can follow severe gastrointestinal infections (such as those caused by Salmonella or Campylobacter) but the mechanisms by which these infections trigger the development of IBS are not understood. Most patients with IBS do not have a history of having had one of these infections.

People with IBS in the general community have the same psychological makeup as those without IBS. However, people with IBS who seek medical help are more likely to suffer from anxiety and stress than those who do not seek medical advice. It is known that stress and anxiety have a number of effects on the intestine; thus, it is likely that anxiety and stress worsen symptoms, but they are probably not the cause of symptoms.

Food intolerances are common in patients with IBS, raising the possibility that IBS is caused by food sensitivity or allergy. This has been difficult to prove and it continues to be studied. A number of foods are known to cause symptoms that can mimic or aggravate IBS. These include dairy products (which contain lactose); and legumes (beans and pulses) and brassicas (broccoli, cauliflower, brussels sprouts, and cabbage), which increase intestinal gas often causing cramps.

Many researchers believe that IBS may be caused by heightened sensitivity of the intestines to normal sensations, so that normal amounts of gas or movement in the gastrointestinal tract are perceived as excessive and painful. This may be why some patients with severe IBS feel better when treated with medications (such as low doses of Imipramine or Nortriptyline) that decrease the sensations coming from the intestine.

## Symptoms

IBS usually begins in young adulthood with either abdominal pain, altered bowel habit or both. The abdominal pain is typically crampy, varying in intensity, and located in the lower abdomen often with a tendency to move around. The severity and location of pain varies much from person to person. Most notice that emotional stress and eating worsen the pain, and that bowel opening relieves the pain. The bowel habit may be diarrhoea or constipation, or alternating diarrhoea and constipation. Indeed there are now recognised three types of IBS, namely; diarrhoea dominant IBS (IBS-d); constipation dominant IBS (IBS-c); and alternating type or mixed (IBS-m).

The diarrhoea of IBS is characterized by frequent loose stools of small to moderate volume. Bowel movements usually occur during the daytime, and most often in the morning or after meals. Diarrhoea is often associated with a sense of extreme urgency and followed by a feeling of incomplete evacuation. Many patients with IBS notice mucus discharge with diarrhoea.

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The constipation of IBS can last from days to months. Stools are often hard and pellet-shaped or thin and ribbon-like.

Other gastrointestinal symptoms commonly experienced in patients with IBS include bloating, gas, belching, heartburn, reflux, difficulty swallowing, an early feeling of fullness with eating, and nausea.

Non-gastrointestinal symptoms include frequent and urgent urination and painful menstruation.

### Diagnosis

Several intestinal disorders have symptoms that are similar to IBS such as malabsorption, ulcerative colitis, Crohn's disease, microscopic and eosinophilic colitis. There is no test to diagnose IBS but there are formal sets of diagnostic criteria known as the Rome or Manning criteria. However, these criteria do not perfectly discriminate among people with IBS, people with other gastrointestinal conditions, and healthy people. Therefore, a medical history, physical examination, and tests are necessary to rule out other medical conditions.

The history will concentrate on the nature, duration, and severity of gastrointestinal and other symptoms with discussion of diet, drugs being used and previous surgery. We usually ask about psychological stress because this often plays a role in IBS.

A thorough physical examination reveals no abnormalities in people with IBS, but it can help detect or rule out conditions that mimic IBS.

Most doctors will order routine blood tests and often arrange for more invasive tests, such as sigmoidoscopy or colonoscopy.

### Treatment

Treatment is a long-term process and it is important to maintain good communication with your doctor about your symptoms, your concerns, and any psychological and social issues that arise. Monitoring is also important so a daily diary is helpful to identify factors that worsen symptoms such as lactose or other foods and stress.

The systematic elimination of particular foods can be helpful to determine the relationship between the food and symptoms and the main foods to consider for elimination are dairy products, since lactose intolerance is common, legumes (pulses and as beans) and brassicas such as cabbage, brussels sprouts, cauliflower, and broccoli because these produce gas. Some patients have trouble with onions, garlic, celery, carrots, raisins, bananas, apricots, prunes, and wheat.

Increasing dietary fibre can relieve symptoms in some people with IBS but it is important to concentrate on increasing soluble fibre and not the insoluble fibre such as bran which can be irritating. It is often helpful to take a dietary fibre supplement such as psyllium or methylcellulose.

Stress and anxiety worsens IBS but the best approach for reducing stress and anxiety depends upon the individual and the severity of symptoms. Some patients benefit from formal counselling with or without medications or other treatments such as hypnosis and biofeedback. Many patients find that daily exercise can be extremely helpful to their sense of well-being and does have favourable effects on bowel action.

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Although many drugs are available to treat the symptoms of IBS, these drugs do not cure the condition. The choice among these drugs depends upon the type of IBS. Anticholinergic drugs block the nervous system's stimulation of the gastrointestinal tract and have an antispasmodic effect which relieves cramping and irregular contractions of the colon. Such drugs include Mebeverine and Alverine. Antidepressants also have a pain relieving effect that is independent of their depression relieving effect. This effect is seen at doses that are too low to have an antidepressant effect. They typically require three to four weeks to take effect. One class of antidepressants, tricyclic antidepressants, which includes Amitriptyline, Imipramine, and Nortriptyline, also slow movement of contents through the gastrointestinal tract and may be most helpful in people with diarrhoea predominant IBS.

Antidiarrhoeal drugs such as Loperamide (Imodium) or Diphenoxylate with atropine (Lomotil) can also slow the movement of contents through the gastrointestinal tract and are most helpful in people with diarrhoea predominant IBS. However they should only be used as needed, and rarely on a continuous basis.

Drugs affecting serotonin receptors are the most modern treatment for IBS. Serotonin is a hormone that is involved in intestinal contractions and sensation. Drugs that stimulate the serotonin receptors increase intestinal contractions, while drugs that block them decrease intestinal contractions.

The blocking drugs have been used for diarrhoea-predominant IBS symptoms. The first medication in this class was Alosetron. However, Alosetron was withdrawn from the market soon after its introduction because of concerns related to its safety and is now under tight regulatory control. Whether other drugs in this class will prove to be safer remains to be determined.

Tegaserod is the first of the stimulating category of drugs. It seems most effective in IBS-c and is also registered for use in Chronic Constipation. It is still quite new so we must monitor carefully patients upon it to ensure it will not have, as yet unknown, long term side effects.

A number of herbal and natural therapies have been advertised (especially on the internet) for the treatment of IBS. Unfortunately, there is no clear evidence to support their benefit but experience does tell us that patients often benefit from them. Such remedies include Peppermint oil for which there is, in fact, some supportive evidence, Ginger, which is used in many communities to relieve the symptoms of gas, Acidophilus and other "healthy" bacteria (collectively called Pro-biotics), and Chamomile tea, for which there is scant evidence. Wormwood and Comfrey have both been suggested but there is no evidence to support them and both can have serious side-effects.

### Outlook

Finally although IBS can produce substantial physical discomfort and emotional distress, studies show that most people with IBS do not develop serious long-term health conditions and the vast majority of patients learn to control their symptoms.