

Constipation, Bloating, Diarrhea, Pain - Irritable Bowel Syndrome

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Bottom line at the top: Irritable bowel syndrome is probably a number of diseases that cause similar, distressing, bowel symptoms that are difficult to treat. This article offers a little enlightenment and a few ideas for relief.

The enigma of irritable bowel syndrome (IBS) frustrates both patients and doctors. We don't know exactly what it is or why it occurs. People also call it spastic colitis, though pathology shows no real colitis (inflammation).

IBS is abdominal pain that is associated with some change in bowel movement pattern or consistency. In every day practice, any patient who has abdominal pain plus 1) nausea, bloating, uncomfortable gas churning, constipation and/or diarrhea; and 2) no alternative diagnosis after a full evaluation, including colonoscopy has IBS.

The misery affects millions, most of whom are undiagnosed. Fourteen to 24% of women and 5 to 19% of men have the problem, leading to millions of physician visits and medication prescriptions each year. These patients have poorer quality of life, higher health care utilization, greater disability and three-fold higher absentee-ism from work.

The problem resolves in as few as 5% of IBS patients within 5 years. Symptoms wax and wane and may change in character over time, but usually remain chronic without weight loss or loss of life. Alarmed by persistent misery, it is not uncommon for someone with a 20 year IBS history to continue to doctor-shop, trying to find the cure. Once the initial medical evaluation is done and a diagnosis is made, performing repeated diagnostic studies is of little value.

While it is easy to say a disease that has lasted 20 years without killing someone is benign, early in the disease no one knows whether the symptoms are benign or not. Weight loss, onset of symptoms after age 50, night-time symptoms that interrupt sleep, rectal bleeding, anemia and onset after antibiotic use, should raise suspicion of something more than IBS, prompting a more extensive evaluation. Some basic tests, like a full blood count, liver enzymes, sed rate, endomysial antibodies, colonoscopy, stool cultures and liver imaging can rule-out more ominous disease.

Causes: IBS is probably not one problem, but rather a gmish of as yet unidentified clinical entities, united by their common symptoms.

A relatively recent advance identified gluten enteropathy as the real problem in many people who had been diagnosed with irritable bowel. In this disease antibodies to wheat attack the lining of the bowel, causing it to malfunction. In the past we believed that this disorder, also called celiac sprue, caused severe diarrhea and wasting. Now we know that less severe cases manifest as irritable bowel-like symptoms, without necessarily causing weight loss or diarrhea. The disease is treatable, and shouldn't be missed.

Most IBS patients do not have gluten enteropathy and have no explanation for their symptoms. Those people suffer while waiting for the next breakthrough in diagnosis and treatment. For now, current theory suggests that IBS is due to any or all of 1) abnormal bowel contractions, 2) hypersensitivity to normal bowel activity, 3) disrupted bacterial balance and 4) an abnormal nervous system to gut connection.

Most people are not born with the problem. IBS appears to run in families, but the likelihood that a relative of a patient will also have the disorder is less than 35%.

The bowel of some (not all) IBS patients doesn't move normally. Normal movement occurs in waves, from near end to far, so as to propel digesting food from your stomach to your rear end. IBS colons either don't contract enough or have uncoordinated, ineffective contractions that leave the contents churning but not moving.

About half of IBS patients have "visceral hyper-sensitivity", meaning they feel discomfort with normal contractions and distention more easily than a non-IBS person. Having a lower pain threshold predicts only severity of pain, not bloating, diarrhea or constipation. The site of increased sensitivity does not necessarily match the location of symptoms, so there is more to IBS than just hypersensitivity.

About a quarter of patients with IBS start to have symptoms after acute gastroenteritis. An infection, with its attendant inflammation, can alter the GI nervous system, causing muscular dysfunction and hyperexcitability of sensory neurons (visceral hypersensitivity). Such infection might also alter the colonic immune system and its resident bacteria.

The GI tract has a nervous system that controls most function, including contractions, acid secretion, and sensation. We are not usually aware of this nervous system, which is the same system that keeps us breathing and controls our heart rate without thinking about it. It has two competing components, one which speeds-up and the other which slows-down. IBS patients seem to have an imbalance of these two.

Serotonin (the neuro-hormone associated with depression) plays a crucial role in gut function, affecting movement, intestinal secretion, sensation and the link between the brain and nerves in the gut. Some people believe that excessive serotonin causes IBS symptoms, including both diarrhea and constipation. IBS patients have increased serotonin levels, especially after meals, but not necessarily coincident with symptoms.

IBS often has a significant psychological component, possibly working through the nervous system. Even people without IBS experience the brain-bowel nervous connection, which may make its presence known at most inconvenient times. Being away from home or out camping (especially first-timers not comfortable with aiming for a hole) constipates many people. Others get diarrhea when anxious before a race or performance.

Irritable bowel symptoms seem to be augmented at times of anxiety or psychological stress. Patients with IBS symptoms have more depression, anxiety, and perceived stress when compared with the general population. They pay more attention to gut symptoms that others may barely notice and may perceive pain with more distress.

At least a subgroup of patients have a disrupted intestinal bacteria balance. This may change the amount of gas produced, disrupt the colonic cell lining, and/or affect the colon's immune system (see We Need Our Bacteria in the June 2008 issue). By definition, the colon is not inflamed in IBS, but occasionally a few inflammatory cells are seen on pathology. Mild inflammation might alter function and sensitivity.

Treatment: IBS is difficult to treat because we don't know what causes it. **Because we use a single name to label a group of diverse conditions that happen to have related symptoms, it is unrealistic to expect that one drug will cure everyone, especially those with opposite symptoms.** This is probably the reason that clinical medication trials, that lump everyone together, often don't show a benefit.

If we understood and could identify patients with different underlying causes of IBS, we might be able to identify treatments that work for each type. But we don't. We basically treat to control symptoms, with the overriding goals of alleviating the patient's abdominal discomfort and enabling them to function in society.

Food: Every IBS patient wants to know what diet will relieve their suffering, having noticed that certain foods aggravate symptoms. Unfortunately no one diet cures all, because foods that help or hurt one person may be irrelevant to another. Common culprit foods include lactose (milk sugar), wheat products, fiber, simple sugars (fructose, xylitol, sorbitol) and caffeine. Peppermint, chamomile and fennel may help.

The food most association with bowel movements is fiber. IBS patients tend to complain more about normal fiber-induced bloating and gas than do non-IBS people. For some, high fiber foods bulk up the stool, regulated frequency and relieve constipation or diarrhea. At times, though, it aggravates symptoms because it doesn't necessarily push the stool through the bowel more quickly – all the new bulk just sits there and makes the misery worse. It may increase gas and bloating. Treating with high dietary fiber rarely 'cures' IBS.

Diets should be balanced, not top-heavy in any one type of food. If you suspect symptoms after a particular food, eliminate it for a while to see. This can be taken too far, though: I have anxious patients who blame so many foods that they eat virtually nothing. They waste away, when their real problem is hyper-sensitivity after all food.

Occasionally a true food allergy causes symptoms. You might see an allergist to be tested. Avoiding specific foods may improve symptoms, but rarely cures the underlying IBS.

Medications: Since IBS often starts after a diarrheal illness, probiotics (see *Probiotics* article, June 2008 issue) are a logical treatment, to re-establish a healthy bacterial balance. A combination probiotic works better than a single bacterial type. Not everyone responds.

Anticholinergic drugs, which work on the gut nervous system, may help some patients who have diarrhea and pain. Tricyclic anti-depressants, may help three ways: through their anti-cholinergic effects, by blunting pain perception and by alleviating anxiety, but they can aggravate constipation and bloating. Some people improve with other anti-depressants for unclear reasons. Whether or not someone is depressed does not predict success with these drugs, which might be tried in anyone.

Bowel relaxants often calm cramping and ease pain, but might make constipation worse. Doctors commonly prescribe dicyclomine, the only colonic muscle relaxant available in the U.S, and people often feel better, but are not cured by it. Loperamide, an anti-diarrheal agent that reduces intestinal activity, may alleviate diarrhea, urgency and frequency, but obviously won't help constipation and might aggravate abdominal pain and distention.

Some drugs increase intestinal contractions, helping the bowel to push stool on through. They may deflate distention, but these drugs have problems. Metoclopramide might induce life-long bizarre and uncontrollable movements. Domperidone is available only in Canada. Cisapride was removed from the market because it kills people, and use of tegaserod, with similar problems, is limited to young women with constipation.

Anti-emetics might help the nausea. Occasionally patients who complain of "ulcer-like" pain in addition to their IBS symptoms respond to stomach acid blockers. Herbal preparations, acupuncture and enzymes do not produce consistent relief.

Other remedies: Cognitive behavioral and psycho-dynamic interpersonal therapy improve coping. In some, hypno-therapy or relaxation techniques reduce symptoms. In one study, psychotherapy was clinically effective in improving symptoms and pain perception even though the gut's basic function didn't change. ¶

