



**Institute for Women's Health Research**  
*Putting Women's Health First*

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Dear Friends,

This edition of the [Institute for Women's Health Research](#) is focused on the gastro-intestinal tract with an emphasis on Irritable Bowel Syndrome. While this may be a slightly squeamish topic, this condition is very common and affects 10-15% of the US population and is more predominant in women. It is not a deadly disease, but it has a huge impact on one's quality of life. There is no cure, but there are treatments that can relieve symptoms and avoid "triggers". If you want to learn more on this subject, it will be the topic for our IWHR Monthly Research Forum on October 19.

The Institute Staff



INSTITUTE FOR  
**WOMEN'S HEALTH**  
RESEARCH™  
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## **Irritable Bowel Syndrome**

### **Definition and Prevalence**

Irritable bowel syndrome (IBS) is a disorder characterized by abdominal pain or discomfort, and altered bowel habits (IBS is sometimes called spastic colon, mucous colitis, nervous stomach, or irritable colon but these terms have become less common. It is one of a range of conditions known as "functional gastrointestinal disorders."



IBS affects between 25 and 45 million people in the United States. About 2 in 3 IBS sufferers are female. IBS affects people of all ages, even children. It is more common in persons under age 50. Although IBS is common in the general population, few seek medical care for their symptoms. Nearly 2,000 patients with IBS reported (in [a survey](#) conducted by the International Foundation for Functional Gastrointestinal Disorders) that diagnosis of their IBS was typically made 6.6 years after their symptoms began.

Approximately 20 to 40% of all visits to gastroenterologists are due to IBS symptoms. The estimated aggregate cost of IBS is estimated at \$1.7-\$10 billion in direct medical costs and \$20 billion in indirect

costs.

### **Cause**

The exact cause of IBS is not known. The risk of developing IBS increases sixfold after an acute GI infection. Stress does not cause IBS; however, because of the connection between the brain and the gut, stress can worsen or trigger symptoms. Stress factors can be physical, dietary, psychological or environmental.

### **Symptoms**

The impact of IBS can range from mild inconvenience to severe debilitation. It can control many aspects of a person's emotional, social and professional life. IBS is unpredictable. Symptoms vary and are sometimes contradictory. Diarrhea can alternate with constipation. Long-term symptoms can disrupt personal and professional activities, and limit individual potential. Symptoms may result from a disturbance or dysregulation in the way the gut, brain, and nervous system interact. This can cause the bowel to become irritated and oversensitive to stimuli resulting in changes in normal bowel movement and sensation. The primary symptoms of IBS are abdominal pain or discomfort in association with frequent diarrhea or constipation, a change in bowel habits (chronic or recurrent diarrhea, constipation, or both - either mixed or in alternation) urgency, bloating, abdominal distention and a feeling of incomplete evacuation.

People with IBS often have co-morbidities including gastroesophageal reflux, chronic fatigue syndrome, fibromyalgia, headache, backache and psychiatric symptoms like depression and anxiety.

### **Diagnosis**

IBS is a diagnosis of exclusion. There is no specific lab or imaging test that can confirm the disease. Diagnosis of IBS involves excluding IBS-like symptoms, and then following a set of guidelines to categorize the patient's symptoms. The [Rome Criteria](#) is a classification system that uses specific symptom patterns to identify functional GI disorders such as IBS. IBS can only be diagnosed by a medical professional. Diseases that need to be ruled out before an IBS diagnosis is made are: parasitic infections, lactose intolerance, small intestinal bacterial overgrowth and celiac disease. People with IBS don't have any serious physical abnormality of their lower intestine.

### **Treatment**

IBS treatment should begin with education to ensure that the patient understands that:

- IBS is a chronic, long-term condition.
- Symptoms flair up over and over again.
- Symptoms may change over time and are NOT life threatening.
- IBS is not a risk for another more serious disease.

Treatments are available to help manage IBS symptoms but not to cure the disease. Not all treatments work for all people and the type of treatment often depends on the severity of the symptoms that are generally categorized into mild (occur infrequently and sometimes interfere with normal activities), moderate (occur more intensely and frequently and often interfere with activities); and severe (frequent and intense and chronically interfere with lifestyle).

Non-pharmacologic therapy is particularly suited to patients with multiple unexplained symptoms and coexisting functional disorders and can include hypnosis and cognitive-behavioral therapy.

Pharmacologic therapy is directed at specific symptoms or at the underlying mechanism of disease. The chemical serotonin is involved in the transmission of pain stimuli and their processing in the central nervous system in both IBS and fibromyalgia. For this reason, antidepressants are often prescribed to help reduce hypersensitivity to pain thresholds. Other drug treatments include but are not limited to antispasmodics, laxatives, and dopamine receptors blockers.

A number of dietary modifications have been tried to improve symptoms of IBS that have been effective in some populations. Tests attempting to predict food sensitivity in IBS have been disappointing. On the other hand, there has been some convincing evidence that soluble fiber supplementation is effective in the general IBS population. Insoluble fiber (bran) has not been proven effective and in some cases may aggravate symptoms. There is some evidence that the FODMAP diet that restricts rapidly fermentable short chain carbohydrates provides an effective

LUDMIR diet that restricts rapidly fermentable short-chain carbohydrates provides an effective approach for some functional gut symptoms (Gibson PR, Shepherd SJ. J Gastroenterol Hepatol. Feb 2010).

### **Sex and Gender Differences**

In the US and other western countries, twice as many women than men seek treatment for IBS, making it largely perceived as a woman's health issue. One possible reason for this discrepancy may be the fact that men do not seek medical treatment as readily as women. However, a recent meta-analysis on gender differences in IBS and the effect of the menstrual cycle and menopausal status on IBC symptoms concluded that gender differences in IBS symptoms exist, though modestly, and suggests that female sex hormones influence the severity of IBS symptoms (Adeyemo M, Speigel B, Chang L. Alim Parma& Thera, Sept. 2010).

Evidence of a physiologic component in IBS is based on gender and sex differences in GI transit time, visceral sensitivity, central nervous system pain processing, and specific effects of estrogen and progesterone on gut function. Women have been shown to be more sensitive to certain types of pain (e.g., pain from the internal organs), than men.

Many women report an increase in IBS symptoms during certain phases of their menstrual cycle and researchers continue to look into the role of estrogen and other hormones on IBS. Studies are also looking at hormones in men to see if testosterone impacts men with IBS. Studies are beginning to see differences and more research is needed to determine specific mechanisms.

There appears to be a connection between psychological conditions (depression, anxiety and history of sexual abuse) and IBS, though researchers are unsure what the link is. Since these conditions are more prevalent in women, they may play a role in the onset and severity of IBS.

### **Quality of Life and IBS**

For those with IBS an additional burden comes from living in a society where the word "bowel" may scarcely be spoken. Persons with moderate to severe IBS must struggle with symptoms that often impair their physical, emotional, economic, educational and social well-being. Those around them may be unaware of the impact, or even the existence, of the disorder.

In September the Institute of Medicine issued a report entitled, "[Women's Health Research: Progress, Pitfalls, and Promise](#)" that reviewed progress in women's health over the past two decades. The report points out that the area where fewer gains in progress have been made is on chronic and debilitation conditions that cause significant suffering but have lower death rates. The authors emphasized the need for researchers to give quality of life outcomes similar consideration as mortality for research attention. IBS is certainly one of those conditions.

### **Resources:**

[International Foundation for Functional Gastrointestinal Disorders](#)

[Digestique](#)

[emedicine: Irritable Bowel Syndrome](#)

[Wikipedia: Irritable Bowel Syndrome](#)

## **Upcoming Events**

October 20, 2010

[Institute for Women's Health Research Monthly Forum](#)

Effective Measures to Reduce the Risk of Colorectal Cancer - Steven J. Stryker, MD

October 24, 2010

[Chicago Lynn Sage Breast Cancer Town Hall Meeting](#)

October 28, 2010

[Chicago Leadership in Reducing Disparities in Health](#)

## Health Tip:

Since the cause of IBS is unknown, it's not possible to reliably prevent symptoms. The following strategies can help your digestive system and may improve the condition:

- Certain foods either cause or make IBS worse. These can include fried foods, caffeine, alcohol, and dairy if you are lactose intolerant.
- Eat low-fat foods.
- Add fruits and vegetables into your diet; these are natural sources of fiber that aid the digestive process.
- Eat smaller meals. Many people find their IBS symptoms get worse after a heavy meal.
- Try to reduce the amount of stress in your life.
- Physical activity and exercise can improve digestion and reduce stress.

## [Join the Illinois Women's Health Registry](#)

On August 30, 2010 the Illinois Women's Health Registry reached its September 1 goal of **5,000** participants. Special thanks to Illinois BlueCross-BlueShield for promoting the registry in their Lifetimes newsletter. Our next challenge is to reach 7,500 by the end of the year! If you have not joined yet, please do, and encourage your family and friends, to [help us advance women's health research!](#)

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