Current Approach to the Diagnosis of Irritable Bowel Syndrome

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International Foundation for Gastrointestinal Disorders (www.iffgd.org)

Reading time: 8 minutes

Originally, the diagnosis of irritable bowel syndrome (IBS) was thought to be a "diagnosis of exclusion". This implies that the diagnosis of IBS was valid only if other disorders that may be causing symptoms were ruled out. Today, healthcare providers agree that tests may be necessary to rule out other diagnoses. However, these tests should only be limited to those necessary, based on symptoms and medical history. IBS is a specific condition that can be confidently diagnosed based on a good understanding of the symptoms experienced, following a comprehensive history and physical examination and in the absence of alarm signs. This fact sheet is not designed to replace the advice of a healthcare provider, but rather to explain the process used in the diagnosis of IBS. It is important to work with a healthcare provider to ensure an accurate diagnosis of IBS and to receive the appropriate treatment.

What is Irritable Bowel Syndrome (IBS)?

Irritable bowel syndrome (IBS) is a disorder characterized by two key elements:

1) an abdominal component generally described as pain and/or discomfort and
2) a change in bowel habits which could include:
   a. changes in stool texture - how the bowel movement (BM) looks and/or
   b. frequency - how often you have BM

Alarm Signs or Symptoms

Healthcare providers look for a number of signs to make sure something other than IBS is not causing symptoms. These "Alarm signs" or "Alarm Symptoms" include:

- Blood in bowel movements (BMs)–Bright red to black in color, in or around BMs
- Low blood counts (anemia), determined by blood work or lab tests ordered by a healthcare provider
- New onset of symptoms after the age of 50
- Unintended weight loss
- Diarrhea that wakes you up from sleep at night
- A family history of IBD, colon cancer, or celiac disease.

These alarm signs are usually not explained by IBS and can represent other medical problems. When these signs or symptoms occur, they should be brought to the attention of a healthcare provider to perform additional tests.

A change in bowel habits can be any change from what is normal for you, such as how often you have a bowel movement (BM) or what the BM looks like (how watery or solid, its color, how much you expel at a time). Changes in stool texture includes experiencing constipation, diarrhea, or both. Constipation is commonly defined as having three (3) or fewer bowel movements (BMs) a week, and/or difficulty passing BMs. Diarrhea is defined as loose, watery, or frequent BMs.

Symptoms of IBS

Symptoms significantly interfere with quality of life and disrupt productivity at school and work. Making a quick, confident, and accurate diagnosis of IBS is extremely important to improve quality of life and allow for the appropriate treatment.

Experiencing abdominal pain and/or discomfort with a change in bowel habits is the key symptom of IBS. The pain and/or discomfort can either be relieved or made worse by having a bowel movement.

Other common symptoms of IBS include:

- bloating (a sensation of fullness in the belly)
- urgency (the need to rush to have a BM)
- mucus (thick white or yellow liquid) in the stool
- the feeling of incompletely emptying after a bowel movement

Symptoms can change over time. There can be periods when symptoms get worse and periods when symptoms lessen or disappear. In addition, the main type of bowel movements experienced may change over time. For example, some people who initially suffer mainly from either constipation or diarrhea may later experience a change to the opposite or develop a mixture of both. Sometimes changes in diet, behavior, or using over-the-counter remedies or prescription drugs can lead to such changes. Other times, the change's cause is not known.

Diagnosing IBS

IBS can be confidently diagnosed based on a good understanding of the symptoms experienced, following a comprehensive history and physical examination and in the absence of alarm signs. Minimal testing may be required to rule-out other disorders as potential causes of symptoms.

In the 1990's, a group of healthcare providers created the first standard for evaluating irritable bowel syndrome (IBS). Called the Rome Criteria, this criterion is considered the "gold standard" for the diagnosis of IBS for clinical research studies. The criteria have been updated and changed over time and currently the fourth edition is being used by researchers.

The Rome IV diagnostic criteria for IBS states that those with IBS have certain symptoms that must have been present for the past three (3) months and started at least six (6) months before. They will have abdominal pain at least one day each week, along with at least two of the following:

- The abdominal pain is associated with a bowel movement, or
- a change in how their bowel movements look, or
- a change in how often they have bowel movements.

Those meeting this criterion for IBS, without any alarm signs/symptoms, likely have IBS.

Subtypes of IBS

Once a positive diagnosis for irritable bowel syndrome (IBS) is decided, the healthcare provider will determine which subtype of IBS is present. IBS is often categorized based on the most common type of BMs.

These groups include:

- Irritable bowel syndrome with diarrhea (IBS-D) – Symptoms of diarrhea occur most often
- Irritable bowel syndrome with constipation (IBS-C) – Symptoms of constipation occur most often
- Irritable bowel syndrome mixed (IBS-M) – Symptoms of both constipation and diarrhea occur.

Identifying the subgroup of IBS is helpful when deciding which tests and/or treatments are best. The severity of the symptoms should also be considered. Grouping IBS patients by their most common BM type is also useful for researchers who are trying to better understand what causes IBS or the best way to care for IBS patients.

Diagnostic Testing

Using a positive diagnostic strategy with minimal testing can reduce the time to begin proper treatment for IBS and improve overall outcomes. However, sometimes tests will be used to rule out other possible causes, especially in those with mostly diarrhea, or diarrhea mixed with constipation.

Blood Tests

There are two blood tests designed to assist with the diagnosis of IBS. They are IBSchek and IBS-Smart. Both are blood tests designed to assist in the diagnosis of irritable bowel syndrome with predominant diarrhea (IBS-D) or with mixed bowel habits (IBS-M) in adults. They do this by testing for certain antibodies thought to be related to IBS developed after a GI infection (post-infectious IBS). Some research studies have showed that patients with IBS-D or IBS-M have high positivity rates of these antibodies when compared with healthy patients. However, these antibodies do not detect IBS in everyone, and a negative test does not mean you do not have IBS.

In some cases, a blood test may be used to screen for celiac disease. Celiac disease is a genetic condition of the small intestine that develops in people who are unable to eat gluten (a common ingredient in many

foods including grains, wheat, rye, and barley, as well as many processed foods). It causes malabsorption of nutrients and food and results in symptoms similar to those in IBS. Generally, screening for celiac disease with blood tests is recommended in those with irritable bowel syndrome with diarrhea (IBS-D). If the blood test is positive, an upper endoscopy should be performed to examine and biopsy the small intestine to confirm the diagnosis. The healthcare provider may also check for inflammatory bowel disease (IBD) by testing to see if certain proteins are present.

Stool Tests – The most common reasons to test a sample of a bowel movement is to check for

- *bacterial infections* (specifically Giardia- a tiny parasitic germ that causes giardadsis (a disease-causing diarrhea). Giardia can be found on surfaces, in soil, food, or water contaminated with feces (poop) from infected people or animals. This infection should be only considered in patients with exposure or risk factors.),
- *inflammation* (testing for fecal calprotectin and lactoferrin is used to see if there is inflammation in the gastrointestinal tract. This helps to determine if someone has inflammatory bowel disease (IBD) and/or irritable bowel syndrome (IBS).
- *blood in the BM* (a positive fecal blood test indicates that there is bleeding somewhere in the digestive system and will require further testing to determine where it is coming from).

Sigmoidoscopy or Colonoscopy - Both a sigmoidoscopy and a colonoscopy allow the healthcare provider to see inside the lower portions of the GI tracts. Both are simple tests that so not involve cutting into the body.

- During a *sigmoidoscopy*, the healthcare provider uses a tube to look at the rectum and lower part of the large intestine or colon. The tube can either hard or soft and can sometimes be done in the healthcare providers office during a visit.
- During a *colonoscopy*, the healthcare provider will use a long flexible tube called an endoscope. This tube has a camera and light on the end. This tool allows your physician to see inside your GI tract to examines the lower portion of the GI tract. This flexible tube is inserted through the anus, into the rectum and large intestine. This test cannot be done during a office visit and requires a complete emptying of the bowels beforehand.

The **rectum** is the final section of the large intestine where bowel movements are stored before being emptied through the anus.

The **anus** is the lower opening of the GI tract.

Sigmoidoscopy and colonoscopy should be performed only when alarm signs such as rectal bleeding or weight loss are present or as part of routine diagnostic screening for colon cancer after age 45.

Anorectal Manometry – This test measures *pelvic floor* function, specifically anal and rectal pressures by inserting a small tube with pressure sensors on it through the anus and into the rectum. Patients will be asked to perform a few maneuvers, such as squeezing and/or trying to push out a BM. This will record the pressure changes and natural muscle reflexes in the anus and rectum. There is a balloon mounted at the tip of the tube that will be inflated to check rectal sensation and urgency. A balloon expulsion test may also be performed. A small balloon is inflated with 50 milliliters of water and individuals are asked to attempt to pass the balloon (simulating a bowel movement). Anorectal manometry is safe, painless, and does not require sedation.

The **Pelvic floor** is a group of muscles that support the organs in the lower part of the abdomen and help with bowel movements.

Miscellaneous Tests

- *GI transit study* – This test may be used in those who experience mostly constipation as it measures how fast (or slow) contents move through the GI tract.
- *Hydrogen breath test* – This is used to detect specific carbohydrate intolerances, such as lactose, fructose, or sucrose. A positive study allows diet changes and/or medications to help with symptoms.
- *Lactulose/glucose breath test* – This is used to detect an overgrowth of bacteria in the intestines. Your body requires a certain balance of bacteria to maintain healthy digestion. When there are too many bacteria, it is sometimes called small intestinal bacterial overgrowth (SIBO). SIBO and IBS share many symptoms, and you can have both.

Summary

IBS can be confidently diagnosed by a careful review of symptoms, a physical examination, and minimal diagnostic testing. Individuals with IBS-D should be tested for celiac and IBD. Those with IBS-C require no diagnostic testing and evidence-based treatment is recommended for initial treatment of symptoms. If these treatments fail; however, anorectal manometry and balloon expulsion testing should be performed to rule-out issues with the pelvic floor. With an accurate diagnosis, both patient and provider can work together on the most effective management.

Related Fact Sheet from IFFGD
168 - Current Pharmacologic Treatments for Adults with Irritable Bowel Syndrome

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About the Publication

This Fact Sheet is being provided in part, by Allergan and Ironwood Pharmaceuticals, and donors of IFFGD.