



IBS: Overview and Risk Factors

Irritable bowel syndrome (IBS) is one of the most common gastrointestinal disorders in the United States with an estimated 10 percent to 20 percent prevalence reported in varying regions. These statistics are based on surveys—many others may wish to keep these symptoms private, and it is difficult to estimate any corresponding numbers. People suffering from IBS experience altered bowel habits; these typically manifest as constipation, diarrhea, or alternating episodes of both accompanied by varying degrees of discomfort and pain. In some cases, abdominal distention may occur. Anatomical analysis, however, indicates no structural or pathologic abnormalities within the intestinal tract. Although IBS is extremely common, the disease is not well understood.

Risk Factors for IBS

Primarily found in adult women: approximately 80 percent of all patients are female
Acute gastrointestinal infection
Prolonged fever
Anxiety
Depression
History of sexual abuse
Elevated emotional stress levels
Elevated serotonin levels
Family history of IBS
Food allergies and/or sensitivities
Comorbidities include fibromyalgia, chronic fatigue syndrome and TMJ dysfunction

Other Causes

Females are at a higher risk and are diagnosed with IBS twice as often as males. It's also well-documented that people with IBS have an imbalance of intestinal flora. People's bodies react differently to foods and emotions; various triggers that affect some, may or may not affect others—common triggers for IBS are certain foods, stress and hormones.

IBS produces no pronounced inflammation, shows no outward signs, and there is no test that can diagnose IBS. Because the symptoms of IBS can occur in relation to many other diseases, those diseases must be ruled out before IBS can be diagnosed. Laboratory tests can be performed to eliminate other causes—these include complete blood count, tests for thyroid function, erythrocyte sedimentation rate and urinalysis. Depending on symptoms, additional testing may include a lactose tolerance test and fecal analysis for blood, bacteria, and parasites.

Once diagnosis is established, IBS is divided into two major variants: Diarrhea-predominant IBS or Constipation-predominant IBS. Some patients may alternate between the two. In all cases, people with IBS appear to have hypersensitive nerves within the large intestine, or possibly extra-sensitive pain receptors in the gastrointestinal tract related to an abnormal level of serotonin. This concurrent symptom may help explain why people with IBS are also likely to be anxious or depressed.

Nutrient Support for IBS Protocol

Nutrient	Nutraceutical Properties for IBS
Digestive Enzymes	Digestive enzymes contribute to the complete breakdown of proteins, carbohydrates, fats and soluble fiber.
Amylase	Catalyze the hydrolysis of alpha-1, 4-glycosidic linkages of polysaccharides to yield dextrans, oligosaccharides, maltose and D-glucose. Essential for carbohydrate absorption.
Lactase	Involved in the hydrolysis of the disaccharide lactose into constituent galactose and glucose monomers—essential for digestive hydrolysis of lactose in milk and dairy.
Lipase	Catalyzes the hydrolysis of ester bonds in water-insoluble, lipid substrates—essential for the digestion of fats from food to monoglycerides and free fatty acids.
Cellulase	Breaks down cellulose to beta-glucose.
Maltase	Breaks down disaccharides in carbohydrates.
Sucrase	Breaks down sucrose into glucose and fructose.
Bromelain	Contains proteolytic enzymes which break down protein into amino acids.
Probiotics	Probiotics are various species of beneficial bacteria which aid in the digestive process, support the immune system and optimize the conversion of food into energy.
<i>Bifidobacterium bifidum</i>	Supports the immune system by promoting normal lymphocyte and phagocyte activity.
<i>Bifidobacterium breve</i>	The job of B. breve in the digestive tract is to ferment sugars and produce lactic acid, as well as acetic acid. B. breve is like a champion among probiotic bacteria due to its superior ability to metabolize many types of food.
<i>Bifidobacterium infantis</i>	Beneficial to individuals experiencing occasional diarrhea, gas or bloating. B. infantis plays an important role in basic digestion and metabolism.
<i>Bifidobacterium longum</i>	Promotes the balanced colonization of bacteria, shares similar functions as B. bifidum in supporting a healthy immune system and providing barrier protection.
<i>Lactobacillus acidophilus</i>	Produces vitamin K, lactase and anti-microbial substances, such as acidolin, acidophilin, lactocidin and bacteriocin; creates the lactase enzyme that assists in the breakdown of lactose into simple sugars.
<i>Lactobacillus casei</i>	Assists in the colonization of beneficial bacteria, aids in the optimal digestion of lactose and can help relieve occasional diarrhea.
<i>Lactobacillus helveticus</i>	Supports optimal lactose metabolism and helps to minimize the duration of occasional diarrhea.
<i>Lactobacillus plantarum</i>	Help to reduce populations of unhealthy bacteria while preserving vital nutrients, antioxidants and vitamins—synthesizes L-lysine.
<i>Lactobacillus rhamnosus</i>	Supports immune function and promotes a healthy urinary tract system; helps maintain the integrity of the stomach lining.
<i>Lactobacillus salivarius</i>	Involved in systemic immune response, supports homeostasis within the intestines.

Nutrient	Nutraceutical Properties for IBS
Omega-3 Fatty Acids	Display powerful anti-inflammatory properties within the digestive tract.
Fiber—Soluble	Functions to mitigate the digestive process, allowing longer breakdown time and optimizing nutrient absorption.
Fiber—Insoluble	Contributes to intestinal bulk, fecal volume and provides prebiotic support for digestive microflora.
Inulin/fructo-oligosaccharides	Provides nourishment for beneficial bacteria in the digestive tract, promotes the growth of favorable bacterial populations which in turn may inhibit the growth of pathogenic bacteria, such as Clostridium perfringens and diarrheogenic strains of Escherichia coli.
Aloe vera	Provides natural plant enzymes that break down food, helps to normalize gastrointestinal pH, composition of intestinal flora; increases density of the stool, improves bowel regularity and produces greater intestinal comfort after eating.
Botanical/Plant Extracts	Delivered in concentrated and/or extracted form, numerous plants, flowers and fruits have displayed benefits related to digestive health.
Acerola Berry	Displays potent antioxidant activity, immune support and inhibits inflammation.
Alfalfa Grass	Displays anti-inflammatory activity and mild laxative properties.
Anise Seed	Supports normal appetite and gallbladder health, displays carminative and antispasmodic properties.
Apple Fiber	Provides soluble fiber, helps regulate water levels in bowels.
Barberry Bark/Root	Supports liver and gallbladder functions; displays alkaloid and antioxidant properties.
Barley Grass	Improves production of hydrochloric acid in stomach, delivers high amounts of chlorophyll and superoxide dismutase.
Barley Malt	Promotes normal bacterial balance and colonization in colon.
Bee Pollen	Promotes bowel regulation and balance of intestinal microflora.
Black Walnut Bark	Contains anti-diarrheal tannins
Buckthorn Bark	High in anthraquinones, promotes the large intestine's peristalsis, regulates water balance in bowels.
Brown Rice Bran	Contains soluble and insoluble fiber, along with Omega-3, 6 and 9 fatty acids.
Burdock Root	Contains high concentrations of inulin and mucilage.
Cascara Sappgrada Bark Extract	High in anthraquinones, promotes the large intestine's peristalsis.
Dandelion Root	Stimulates appetite, displays mild laxative properties.
Fennel Seed	Contains high concentrations of insoluble fiber, demonstrates anti-inflammatory activity.
Genetian Root	Stimulates salivary and gastric secretion, quickens intestinal transit.
Ginger Root	Reduces nausea, displays carminative, antimicrobial and anti-inflammatory properties.
Golden Seal Root	Displays antimicrobial properties.
Green Tea Leaf Extract	Displays anti-inflammatory properties, contains anti-diarrheal tannins.
Hawaiian Spirulina Pacifica	Displays antioxidant properties, promotes healthy immune function.

Nutrient	Nutraceutical Properties for IBS
Hawthorn Berry Extract	Displays anti-inflammatory properties; effective vasodialator.
Hyssop	Displays carminative, antispasmodic and anti-inflammatory properties.
Licorice Root	Increases levels of interferon, displays anti-inflammatory properties.
Milk Thistle Seed	Supports the normal regeneration of liver tissue, healthy liver and bile cholesterol.
Oregon Grape Root	Contains anti-diarrheal tannins, displays anti-inflammatory properties.
Peppermint Leaf	Reduces nausea, displays antimicrobial properties.
Red Clover Flower	Promotes mucus and bile production, supports cardiovascular health.
Rhubarb Root	Contains anthraquinones, promotes secretion of fluid into the bowel, supports kidney and liver function.
Rosemary Leaf	Displays antimicrobial and anti-inflammatory properties.
Schizandra Chinensis	Supports healthy circulation, displays antioxidant and adaptogenic properties.
Soy Lecithin	Supports bile production.
Turmeric Root Extract	Displays antioxidant properties, supports colon health.
Yellow Dock Root	Supports appetite, promotes normal bile flow and displays laxative properties.
Amino Acids	Function as both signaling intermediaries and raw materials for various tissue-building and repairing processes.
L-glutamine	Provides restorative building materials for the GI tract.
L-tryptophan	Serotonin precursor.
N-Acetyl-L-cysteine	Displays mucolytic and antioxidant properties, promotes detoxification.
Minerals	Support all metabolic functions.
Magnesium	Supports electrolyte balance, helps alleviate nausea.
Potassium	Supports electrolyte balance, helps alleviate nausea.

Dietary Recommendations

The types of food and the way a person eats can trigger or worsen IBS symptoms. An overworked or overstressed digestive system will not perform as well. It is also important to remove known food allergens or irritants as many people have food sensitivities that can aggravate or trigger IBS. People with IBS should pay careful attention to when their condition is aggravated to determine if any particular food may be causing symptoms to worsen.

- Because trigger foods are specific to the person, a food log is a valuable asset: document foods, eating times and reactions.
- Minimize and/or monitor intake of high-fat foods, raw foods, dairy products, chocolate, alcohol, carbonated beverages, corn, peanuts, citrus, eggs, fish and tomatoes.
- Low-glycemic-index carbohydrates in the form of vegetables and fruit are encouraged.
- Caffeine can accelerate many metabolic processes, including digestion. Carefully monitor intake and observe results to determine individual sensitivity.
- Drink plenty of water. Avoid carbonated and/or alcoholic beverages.
- Avoid eating in large quantities; smaller, regular meals are more supportive of proper digestion. Manage portions, and aim to eat at 4-hour intervals.
- Fiber intake is highly important for regularity: aim for 25–35 grams daily.
- Food additives and artificial ingredients are a concern—consumption of prepackaged foods should be eliminated or kept to a minimum.

Lifestyle Recommendations

Because there is a connection between anxiety and IBS, alterations to lifestyle to reduce overall anxiety and stress may help.

- Regular exercise is highly recommended.
- A regular sleeping pattern—falling asleep and waking up at the same time each day—is highly recommended.
- Stress-reducing and restorative activities, such as meditation, reading and relaxing walks are highly recommended.
- Behavioral therapy, including stress management and relaxation therapy, has proven successful in reducing frequency and severity of attacks. In addition, stress-managed patients report greater confidence in managing their condition.
- Avoid overuse of laxatives and/or anti-diarrheal medicines—use the lowest effective dose.
- Reduce stress by purposefully structuring a manageable lifestyle. Follow a sensible, predictable schedule each day. Delegate more, take breaks and maintain a strict nighttime routine that promotes restoration.

Potential Interactions

As with all nutritional practices, ingredients and regimens, this protocol is not intended to diagnose, treat, cure or prevent any disease or provide any substitute for the care of a health professional. If you are taking any other prescription drugs or have an ongoing medical condition, you should consult your physician before using any specific nutritional supplements or products. The statements contained herein have not been evaluated by the Food and Drug Administration.

Suggested Further Reading

ods.od.nih.gov

naturaldatabase.therapeuticresearch.com (NMCD)

ncbi.nlm.nih.gov/pubmedhealth

cdc.gov

nutrametrix.org/nei

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Scientific Support for IBS Protocol

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