Innovative GI

Understanding & Managing IBS

A Patient Guide to Irritable Bowel Syndrome

What Is IBS?

Irritable bowel syndrome (IBS) is a disorder of gut-brain interaction — recurring abdominal pain together with a change in bowel habits, without a structural problem showing up on standard testing (colonoscopy, imaging, bloodwork). That doesn't mean nothing is wrong; it means the problem is in how the gut moves, senses pain, and communicates with the brain, rather than in visible tissue damage.

What's Actually Happening in the Gut

Your gut has its own network of nerves — sometimes called the "second brain" — that is in constant two-way communication with your actual brain. In IBS, this communication gets miscalibrated in a few overlapping ways:

- **Oversensitive nerves (visceral hypersensitivity)** — the nerve endings lining your gut become extra-sensitive, so normal amounts of gas, stretching, or digestion — things that wouldn't register in someone without IBS — get sent to the brain as pain, cramping, or urgency.
- **Altered motility** — the muscles of the gut can contract too quickly (pushing stool through fast, causing diarrhea) or too slowly (causing constipation and bloating).
- **Gut microbiome changes** — the balance of bacteria living in the gut is often different in people with IBS, which can affect gas production, motility, and how sensitive the gut lining becomes.
- **Low-grade inflammation and gut lining changes** — some patients, especially those whose IBS began after a stomach bug or GI infection (called post-infectious IBS), show mild, ongoing immune activation and a slightly "leakier" gut lining, even though everything looks normal on a colonoscopy.
- **Brain-gut signaling and stress** — stress, anxiety, and mood don't cause IBS, but they run through the same nerve pathways connecting gut and brain, which is why symptoms often flare during stressful periods and why therapies that target this signaling directly (like gut-directed hypnotherapy or CBT, discussed below) can meaningfully improve physical symptoms.

No single one of these explains every case — which is why treatment usually combines a few approaches (diet, medication, and gut-brain therapies) rather than relying on just one.

IBS is diagnosed when abdominal pain occurs at least 1 day per week over the last 3 months, related to defecation and/or a change in stool frequency or form, with symptoms present for at least 6 months. Based on your typical stool pattern, IBS falls into one of four subtypes, which guides how we treat it:

- **IBS-D (diarrhea-predominant)** — loose or watery stools are the dominant pattern.
- **IBS-C (constipation-predominant)** — hard or infrequent stools are the dominant pattern.
- **IBS-M (mixed)** — both loose and hard stools occur frequently, alternating.
- **IBS-U (unclassified)** — bowel pattern doesn't fit clearly into the other three.

The IBS–SIBO Connection

People with IBS are significantly more likely to test positive for small intestinal bacterial overgrowth (SIBO) than people without IBS — this is especially true for IBS-D. This doesn't mean SIBO explains every case of IBS, but for a meaningful subset of patients, bacterial overgrowth appears to be a real driver of symptoms rather than a coincidental finding.

> *Evidence: A study that combined results from many other studies found people with IBS were much more likely to have SIBO than healthy people without IBS. Importantly, patients who have both IBS and a positive breath test tend to respond better to the antibiotic rifaximin than patients with IBS alone — suggesting breath testing may be worth considering if your symptoms are severe or not responding to standard IBS treatment. (See our separate SIBO guide for details on testing and treatment.)*

How IBS Is Treated

Treatment is guided mainly by your predominant bowel pattern (IBS-D vs. IBS-C), layered with diet, gut-brain therapies, and targeted supplements. Below, we've grouped the options we commonly discuss, along with the evidence behind each.

A note on the evidence below: some of these recommendations (like the prescription medications) are backed by large clinical trials, while others rest on smaller studies or on research that doesn't focus on IBS specifically. We've noted the strength of evidence for each recommendation so you can weigh it accordingly — not everything here is supported equally. A couple of terms come up often below: a study is "compared to a dummy pill (placebo)" when some patients get the real treatment and others get a fake version, without knowing which, so researchers can tell whether the treatment itself is really working. A "review" or study that "combines" several trials means researchers pooled data from multiple separate studies to get a more reliable answer than any one study alone.

Managing IBS-D (Diarrhea-Predominant)

Goal: reduce stool frequency/urgency and abdominal pain.

- **Rifaximin** — an antibiotic (550 mg three times daily for 2 weeks), FDA-approved specifically for IBS-D.
  Evidence: In two large trials, about 41% of patients on rifaximin had meaningful relief of overall IBS symptoms, compared to 32% on placebo. A follow-up trial also showed that retreating with rifaximin works again if symptoms return — and rifaximin is the only IBS-D medication shown to reduce abdominal discomfort across all IBS subtypes, not just IBS-D.
- **Eluxadoline** — a prescription medication that slows gut motility and reduces pain signaling.
  Evidence: Approved based on placebo-controlled trials showing symptom improvement. It isn't used in patients without a gallbladder or with a history of pancreatitis or heavy alcohol use, due to a safety risk in those groups specifically.
- **Alosetron** — a prescription medication reserved for severe IBS-D, mainly in women who haven't responded to other treatments.
  Evidence: Effective in trials, but carries a rare risk of serious constipation-related complications, so it's used selectively and monitored closely.
- **Nortriptyline** (or amitriptyline) — a low-dose tricyclic antidepressant taken at bedtime (commonly 25 mg, sometimes increased to 50 mg), used here for its effect on gut pain signaling and motility, not for depression at these doses.
  Evidence: A large, well-designed trial (ATLANTIS) found real improvement in overall symptoms and pain with low-dose amitriptyline. Nortriptyline is often used instead because it tends to cause less constipation and dry mouth, which matters in IBS-D specifically.
- **Loperamide** — an over-the-counter option for reducing stool frequency and urgency.
  Evidence: Widely used and effective for loose stools, though it manages stool consistency rather than the underlying condition or abdominal pain.
- **Ondansetron** — a medication more commonly known for treating nausea, used off-label for IBS-D to slow gut transit.
  Evidence: Studies comparing it to a dummy pill found real improvement in stool consistency and diarrhea frequency, with less urgency and bloating. Unlike alosetron, it hasn't been linked to the rare, serious reduced-blood-flow problem in the colon that alosetron carries, making it a reasonable option to consider before or alongside the prescription medications above.
- **Bile acid sequestrants** (e.g., cholestyramine, colesevelam) — considered for IBS-D that doesn't fully respond to other treatments.
  Evidence: About one in four to one in three people with IBS-D have too much bile acid reaching the colon, which can cause loose stools. Studies without a dummy-pill comparison (one can't be made for this type of drug) show benefit in these patients, but this is weaker evidence than the dummy-pill-controlled trials behind the medications above.

Managing IBS-C (Constipation-Predominant)

Goal: improve stool frequency/consistency and reduce bloating and discomfort.

- **Soluble fiber** (e.g., psyllium) — increased gradually, usually the first step tried.
  Evidence: Well-established first-line option with broad support in IBS-C literature; low cost and low risk.
- **Linaclotide** — a prescription medication (290 mcg once daily on an empty stomach), FDA-approved for IBS-C, that draws fluid into the intestine to help stool pass more easily.
  Evidence: The best-studied and most effective option here, based on a review combining 15 studies (8,462 patients total). It's the only one of these medications given the strongest recommendation in the national GI specialists' treatment guideline.
- **Plecanatide** — a similar medication that also draws fluid into the intestine.
  Evidence: Also worked better than a dummy pill in trials; its lower dose has the best safety profile among this group of medications.
- **Lubiprostone** — works through a different mechanism (helps the intestine release more fluid to soften stool).
  Evidence: Worked better than a dummy pill in trials, though nausea is a more common side effect than with the other options here.
- **Tenapanor** — a newer option that works by reducing how much salt (and therefore fluid) the gut absorbs.
  Evidence: Worked better than a dummy pill, and ranked best specifically for reducing bloating when these medications were compared head-to-head.
- A note on all four prescription options above: diarrhea is their most common side effect, since that's the direct result of how they work — your provider will help find the right dose.

Diet and Gut-Directed Therapies

Goal: reduce triggers and calm gut-brain signaling.

- **Low-FODMAP diet** — a structured elimination and reintroduction of fermentable carbohydrates, ideally with a registered dietitian.
  Evidence: Strong trial support, with meaningful symptom improvement in a majority of patients in most studies. Works best as a supervised, time-limited process rather than a permanent diet.
- **Traditional dietary advice** — smaller, more regular meals; limiting caffeine, alcohol, and fatty or spicy foods; adequate (not excessive) fiber.
  Evidence: Recommended as a reasonable first step in guidelines, either before or alongside low-FODMAP restriction.
- **Gut-directed hypnotherapy** (e.g., the Nerva app) — a structured, audio-based program, typically over about 6 weeks, that targets gut-brain signaling directly.
  Evidence: A 2024 randomized trial of 244 IBS patients using the Nerva app found 71% had a meaningful drop in abdominal pain (vs. 35% in the control group), and 81% improved in overall symptom severity (vs. 63%). It's one of the few app-delivered therapies with real randomized-trial support behind it, rather than just user testimonials.
- **Cognitive behavioral therapy (CBT)** — gut-focused, structured therapy addressing the brain-gut connection.
  Evidence: Comparable evidence base to gut-directed hypnotherapy; effective for pain and quality of life, with benefits that can last well beyond the treatment period.
- **Regular physical activity** — even a modest, structured increase in activity (e.g., walking), ideally most days of the week.
  Evidence: A randomized trial of 102 IBS patients found that increasing physical activity significantly improved overall symptom severity compared to usual care, and physically active patients were less likely to see their symptoms worsen over time.

Antispasmodics, Peppermint Oil, and Acupuncture

Goal: reduce cramping, spasm, and pain directly.

• **Enteric-coated peppermint oil** — an over-the-counter option, taken before meals.

Evidence: A review of 16 trials (651 patients) found peppermint oil worked in 58% of patients vs. 29% on placebo. That said, one newer, more rigorous trial of specific delivery forms didn't find a significant benefit, so results aren't fully consistent across all studies.

• **Other antispasmodics** (e.g., hyoscine, dicyclomine, otilonium, pinaverium) — prescription or over-the-counter options that relax gut muscle spasm.

Evidence: A review combining 23 studies (2,585 patients) found meaningful overall benefit. However, current U.S. guidelines flag hyoscine and dicyclomine specifically as having thinner supporting data than once thought, so these are used more selectively than the others.

• **Acupuncture** — sometimes used for pain and bloating.

Evidence: Studies show benefit for symptom severity and pain, but the effect hasn't held up as strongly in the more rigorous sham-controlled trials (where a fake acupuncture point is used for comparison) — so how much benefit comes from the treatment itself versus a placebo-like response is genuinely uncertain.

Supplements and Other Adjuncts

Goal: support gut bacteria balance, gut lining, and overall symptom control.

• **Probiotics (specific strains)** — Bifidobacterium longum 35624 (formerly B. infantis), Lactobacillus plantarum 299v, or multi-strain products like Visbiome/VSL#3.

Evidence: Strain matters more than species. B. longum 35624 (1 billion CFU/day) has the most consistent support for pain and bloating; L. plantarum 299v (10 billion CFU/day) helps bloating and stool frequency; Visbiome/VSL#3 also has trial support. Generic multi-strain blends without a studied strain don't carry the same evidence.

• **L-glutamine** — 5 grams, three times daily, mainly considered for IBS that started after a GI infection (post-infectious IBS).

Evidence: One well-designed trial found significant improvement in symptoms and gut-lining repair in post-infectious IBS patients with confirmed increased gut permeability ("leaky gut"), compared to placebo. This may not generalize equally to IBS from other causes.

• **Serum-derived bovine immunoglobulin** (SBI, e.g., EnteraGam) — a "medical food" powder, used mainly for IBS-D.

Evidence: Small clinical trials support benefit for chronic loose stools in IBS-D, working by binding bacterial toxins in the gut and supporting the gut lining. The evidence base here is smaller and less robust than for the prescription medications above.

• **STW5 (Iberogast)** — a 9-herb liquid combination.

Evidence: Several small-to-moderate-sized studies comparing it to a dummy pill support benefit for overall IBS and indigestion-type symptoms.

• **Partially hydrolyzed guar gum (PHGG)** — a soluble fiber/prebiotic supplement, typically 5–6 grams per day, that can help with either loose or hard stools.

Evidence: An 18-week trial found real improvement in bloating at 6 grams/day, and separate studies found benefit for both diarrhea-type stool form and constipation — a flexible option, generally well tolerated with less gas than some other fibers.

• **FODMAP-targeting digestive enzymes** (e.g., FODZYME, or alpha-galactosidase products like Beano) — taken with meals to help break down specific FODMAPs (fructans, GOS, lactose) before they reach the colon.

Evidence: This is an emerging option, not yet firmly established. Real-world (non-placebo-controlled) studies of FODMAP-enzyme blends found most users had improved bloating, gas, and diarrhea, though a formal trial is still pending. For alpha-galactosidase specifically, trial evidence is mixed: helpful after GOS-rich foods like beans, but not shown to help general post-meal symptoms overall.

When to Contact Our Office

- New or worsening abdominal pain, unintended weight loss, rectal bleeding, or blood in your stool
- Symptoms that begin after age 50, or a family history of colon cancer or IBD
- Before starting or stopping any medication or supplement in this guide, especially if you take other medications

This guide supports your personalized plan and isn't a substitute for individualized medical advice. Check with your provider before starting, stopping, or combining anything mentioned here.

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