

Probiotics & Digestive Health

A Patient Guide to What the Evidence Actually Supports

What Are Probiotics?

Probiotics are live microorganisms — usually specific strains of bacteria or yeast — that, taken in adequate amounts, may support gut health. The single most important thing to understand is that **probiotics are strain-specific**: a benefit shown for one exact strain (for example, *Lactobacillus rhamnosus* GG) doesn't necessarily apply to a different strain of the same species, let alone to a different probiotic product entirely. “Probiotic” on a label is closer to “medication” than to a single ingredient — it describes a category, not one specific, interchangeable thing. That's why this guide is organized by condition and names the exact strains studied, rather than treating “probiotics” as one uniform treatment.

A Note on the Evidence

In 2020, a major U.S. medical society (the American Gastroenterological Association, or AGA) reviewed all the best available studies and published formal guidance on probiotics. A couple of terms come up throughout this guide: in a “placebo-controlled” study, some patients get the real probiotic and others get a fake version (a placebo), without being told which, so researchers can tell whether the probiotic really made the difference. A “meta-analysis” means researchers combined the results of several separate studies to get a more reliable answer than any single study could give on its own. Using this evidence, the AGA's overall conclusion was more cautious than popular belief: for most conditions studied, the evidence wasn't strong or consistent enough to formally recommend probiotics one way or the other — what the guideline calls an “evidence gap.” That's different from proof that probiotics don't work; it means the studies so far have been too small, too inconsistent from one strain to the next, or too few to be confident either way. Only two specific uses were judged to have enough evidence for even a “conditional” (weak) recommendation in favor, described below. This guide follows that same honest distinction: where the evidence is genuinely strong, where it's promising but not yet enough, and where it currently falls short.

Preventing Antibiotic-Associated Diarrhea

Goal: reduce the risk of diarrhea (including from *C. difficile*) while taking antibiotics — started with the antibiotic and continued for several days after it's finished.

- ***Saccharomyces boulardii*** (a probiotic yeast), taken throughout the antibiotic course. Sold as **Florastor**.

*Evidence: A meta-analysis found *S. boulardii* reduced the risk of antibiotic-associated diarrhea from 18.7% to 8.5% compared with placebo — roughly cutting the risk in half.*

- ***Lactobacillus rhamnosus* GG**, taken throughout the antibiotic course. Sold as **Culturelle**.

Evidence: A meta-analysis in children and adults found this specific strain significantly reduced the risk of antibiotic-associated diarrhea compared with placebo.

- ***L. acidophilus* CL1285 with *L. casei* LBC80R** (one of the multi-strain combinations with AGA-cited evidence), sold as **Bio-K+**.

*Evidence: This specific combination was one of the ones judged to have enough evidence for a formal, though still “conditional,” recommendation from the AGA specifically for preventing *C. difficile* infection in patients on antibiotics — one of only two uses that met that bar across the entire guideline. (Other AGA-cited combinations exist too, but don't map as cleanly onto a single consumer product — ask us if you'd like an alternative.)*

Pouchitis (After Ileal Pouch Surgery)

Goal: prevent or maintain remission of pouchitis in patients who've had their colon removed and an ileal pouch created — the other use with strong, dedicated trial evidence.

- **The “De Simone Formulation”** (the original 8-strain, high-dose combination studied in pouchitis trials under the name VSL#3), taken daily. Sold today as **Visbiome**.

*Evidence: Placebo-controlled studies found this formulation both prevented the first episode of pouchitis after pouch surgery and helped keep people in remission afterward — in one trial, 85% of patients stayed in remission at one year versus just 6% on placebo. It's the only probiotic formally recognized by the American College of Gastroenterology as an effective tool specifically for pouchitis. **Important:** after a 2016 business split between the original manufacturers, the product still sold under the name “VSL#3” started being made with different bacteria than before, and a court later found it wasn't the same product tested in these trials — Visbiome is the one made to the original, studied formula.*

Promising, But Not Yet a Formal Recommendation

Goal: reasonable to try for these uses, with real supporting data — but the evidence hasn't reached the bar for a formal guideline recommendation, usually because results vary by strain or study.

- **Bifidobacterium infantis 35624** (now also labeled *B. longum* 35624, after a reclassification) for irritable bowel syndrome, taken daily. Sold as **Align**.

Evidence: A placebo-controlled trial found this specific strain significantly improved abdominal pain, bloating, and how patients rated their overall symptoms, beating placebo by more than 20% on that overall rating. It's the most consistently studied strain for IBS, but because results are much less clear for other strains and products, the AGA still classifies probiotics overall for IBS as an evidence gap — this is a good example of why the exact strain matters more than the category.

- **Certain probiotic strains** (including *L. acidophilus*, *L. casei* DN-114001, *L. gasseri*, and *B. infantis* 2036) as an add-on to standard antibiotic therapy for *H. pylori*. *L. casei* DN-114001 is sold as the fermented dairy drink **DanActive**; the others don't map onto one consistent consumer product.

Evidence: A meta-analysis found these strains modestly improved how often the antibiotics successfully cleared the infection, and meaningfully reduced treatment side effects — including diarrhea, nausea, and a bad taste in the mouth — compared with antibiotic therapy alone. A reasonable add-on to discuss with us, but not a substitute for completing the full course of antibiotics you're prescribed.

Where Probiotics Are Not Currently Recommended

- **Crohn's disease** — no probiotic has shown a proven benefit; the AGA guideline recommends use only within a clinical trial.
- **Ulcerative colitis** (outside of pouchitis, above) — the same “evidence gap” applies; talk to us before adding a probiotic to your UC treatment plan.
- **Treating an active *C. difficile* infection** — probiotics have evidence for *preventing* this infection during antibiotics, but not for treating an infection that's already started.
- **Sudden infectious diarrhea in children** — the AGA specifically advises against probiotics here, based on fairly solid evidence that they don't meaningfully help.

Safety Considerations

- **Probiotics aren't regulated as drugs.** Strain, dose, and quality vary widely between manufacturers — check that a product lists the specific strain that was actually studied, not just the species or a generic “probiotic blend.”
- **Rare but serious infections**, where the probiotic bacteria or yeast gets into the bloodstream, have been reported — almost entirely in patients who were critically ill, had a weakened immune system (immunocompromised, for example from chemotherapy or certain medications), or had a central line (a long-term IV tube placed into a large vein, usually in the hospital). Guidelines specifically recommend avoiding probiotics such as *S. boulardii* in these groups.
- **Products aren't interchangeable.** A benefit shown for one specific strain in a trial doesn't transfer to a different product just because it's also labeled “probiotic.”

When to Contact Our Office

- You have a weakened immune system, are critically ill, are hospitalized, or have a central line and are considering a probiotic — talk to us before starting one
- You develop fever or worsening symptoms after starting a probiotic
- You're pregnant, nursing, or on chemotherapy or immune-suppressing medication and are considering a probiotic
- Your symptoms don't improve despite a full, correctly dosed trial of a specific, evidence-backed strain

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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