

# Gut Treatment Protocols: GERD, IBD & IBS, Part 6

Several probiotics have been shown to be effective for managing IBD. VSL#3 probably has the most research behind it. It's one of the few probiotic preparations that's supported by a level, one, that is double-blind placebo-controlled scientific data, and it's a combination of Bifidobacteria, Lactobacillus, and Streptococcus strains. Elixia DS, double strength packets, contain 900 billion beneficial bacteria and require a prescription, but the VSL#3 regular packets contain 450 billion bacteria and they're available without a prescription. This is a very high dose, so I suggest starting small, maybe a quarter of a packet, and having the patient build up slowly. Elixia's a newer high-potency probiotic, it has an encapsulation technology that they claim helps organisms survive stomach acid. It's 500 billion CFU, so also high potency and similar strains to VSL#3, but I know at least anecdotally that some have claimed better results with Elixia than they've gotten with VSL#3. I'm not aware of any peer-reviewed research with Elixia probiotics, but all of the strains that are in it are well-studied and have a lot of peer-reviewed research behind them.

I've found that transit commensals like MegaSporeBiotic and soil-based organisms like Prescript-Assist work well for IBD. If diarrhea is present, *Saccharomyces boulardii* can also be helpful, but *E. coli* Nissle 1917 is another probiotic that can be used with IBD; it's got a long history of use in Europe. In fact, it was originally developed in 1917, as the name suggests, by a physician with the last name of Nissle, who ... I believe it was during World War I and there was an outbreak of dysentery behind the Russian lines and a particular battalion was relatively unaffected by it, and Nissle wanted to find out why, and he cultured their stool and he found that they had a high concentration of this particular organism, *E. coli* Nissle, named after him, and they were all from a similar village, and so this was isolated and it's been used for a wide range of conditions. There are several studies that show efficacy with both Crohn's and ulcerative colitis. Unfortunately, for some reason that isn't known to me, it's not available in the US and has to be ordered directly from a pharmacy in Germany. I've done this in cases where a patient can't tolerate other probiotics and they have IBD and they've had some positive results. It also seems to be one of the probiotics that's more effective for constipation, so we'll provide information on how to order it from Germany. It may not be super-practical because of that, but it's something that we might consider if nothing else works.

Fecal microbiota transplant, or FMT, is being investigated for IBD. It's kind of the ultimate probiotic treatment. The research on it for IBD has been mixed so far, though. One study found long-term remission in only two of eight patients, so that's not great, but it's also been observed that higher donor species richness is associated with more successful transplants, so in large part the success or lack thereof of this treatment depends on the donor, and there are just so many people with messed-up guts and messed-up gut floras at this point, it's really hard to find donors that are suitable, and I think that's one of the biggest challenges with this procedure. There's tons of variability in donor selection. Methodology hasn't been standardized, so while it's a very promising

treatment for a lot of different conditions, I think there's still a lot that we have to learn, and as you probably also know, FMT is not approved by the FDA for anything other than antibiotic-resistant C-diff, so it's not something that's readily available to patients, in the US at least. There are some clinics outside of the US like the Taymount Clinic; I have had Glenn Taylor, who runs the Taymount Clinic, on my podcast a couple of times and will put those in the resources section. You can listen to those and learn more about how they're doing things over there. I have sent several patients over there and the results have been pretty good overall, although mixed, some people not improving and a couple even getting worse, so it can definitely be a miracle cure in antibiotic-resistant C-diff and some other conditions, but it's not a panacea, and there is more that we need to learn about this.

Low-dose naltrexone is another medication that can be helpful in IBD. We talked a little bit about it during the SIBO treatment section as a prokinetic, but low-dose naltrexone is more often used for autoimmune disease. It's thought to boost endorphin production, when endorphins have been observed to be low in autoimmune disease. It's also thought to reduce central nervous system inflammation, which is an issue in a lot of autoimmune disease. More specifically, LDN has been shown to be effective for Crohn's in small studies; one study by Dr. Jill Smith, I think she's at Penn, in kids with moderate or severe IBD, they used LDN to achieve reduced disease activity without adverse effects, so it was a pretty encouraging study. For some reason, it doesn't seem to have the same effectiveness for ulcerative colitis, but I've seen it work for patients for that, and studies suggest it's very safe, doesn't really have significant adverse effects or risks, and I think it's much safer than alternatives that are used for IBD, some of which can be downright dangerous and life-threatening.

Perhaps not surprisingly at this point, rifaximin's also been investigated for IBD, both for inducing and maintaining remission. Rifaximin has provided pretty promising results in inducing remission of Crohn's disease, up to 69 percent in open-label studies and significantly higher rates than placebo in double-blind trials, and ulcerative colitis, 76 percent in open-label studies and higher rates than placebo in controlled trials. Rifaximin at a dose of 1,600 milligrams per day for 12 weeks led to remission in 100 percent of patients who'd previously achieved remission with standard therapy, versus just 84 percent who were taking a placebo. At 24-week follow-up, though, 78 percent of the rifaximin group were still in remission versus only 41 percent of placebo, so the difference got larger as the time period extended.

Elemental diet can be another effective treatment for Crohn's, especially during flare-ups, but for some reason it's not as well understood; it's not as useful for ulcerative colitis. Studies have shown clinical remission rates up to 85 percent with the elemental diet in Crohn's disease, with mucosal healing in 19 to 75 percent of patients. Mechanisms include a strong anti-inflammatory effect, both locally and systemically, and restoring the epithelial barrier. Recently it's been hypothesized that elemental diets can influence the immune response to gut microbes and act specifically on gut microbiota, which can correct dysbiosis. So we talked about elemental diets during SIBO treatment, and which formulas are the best options, so refer to that for details on implementation.

## Inducing remission / treating active flare of IBD

Intervention	Notes
<b>GAPS Intro or Elemental Diet</b>	Either can be effective; elemental for 2-3 weeks only
<b>Rifaximin</b>	1,650 mg/d (550 TID) for 12 weeks
<b>Butyrate</b>	Sodium-potassium form (3-4 g/d) & prebiotics
<b>Probiotics (&amp; FMT*)</b>	VSL#3, Elixia, MegaSporeBiotic, Prescript Assist, Mutaflor (E. Coli Nissle 1917)

Okay, so here again is a summary of treatments to consider for an active flare of IBD in order to induce remission, so it'd be the GAPS intro diet or elemental diet, rifaximin, butyrate, oral butyrate, sodium potassium form, three to four grams per day, and then probiotics, possibly FMT, although all the caveats that I mentioned apply.

## Maintaining remission / ongoing treatment for IBD

Intervention	Notes
Low-dose naltrexone	4.5 mg used in studies; 1.5–3 mg most used in practice
Probiotics (& FMT*)	VSL#3, Elixia, MegaSporeBiotic, Prescript Assist, Mutaflor (E. Coli Nissle 1917)
Curcumin	NovaSOL, BCM-95, liposomal, Theracurmin
Glutathione	Liposomal form best; 2 tsp per day
Colostrum*	Tegricel form best; 1.5 g/d
Vitamin D	Aim for serum level of 40-60 ng/mL

And then here is a summary of the treatments for maintaining remission once it's been achieved. These are listed in descending order of effectiveness, in my experience. First would be low-dose naltrexone, four to five milligrams was used in studies, but 1.5 to 3 milligrams is the most common dose that I've seen to be effective. Probiotics and possibly FMT, so all the ones we've talked about, VSL#3, Elixia, MegaSporeBiotic, Prescript-Assist and MutaFlor, E. coli Nissle. Curcumin, so preparations like NovaSOL, BCM-95, liposomal, and products like Theracurmin. These would be the more bioavailable forms. Glutathione, I think the liposomal form is best, two teaspoons a day if tolerated. Colostrum, the Tegricel form is probably best at a dose of maybe 1.5 grams per day, and then vitamin D, optimizing serum levels between 40 and 60 nanograms per milliliter. The items that have an asterisk on them, colostrum and FMT, are the ones I don't have a lot of experience with for the treatment of IBD in particular, but there is at least some research to support those.

Okay, so that's it for GERD, IBS, and IBD, and in the next, final section of the treatment protocols presentation, we'll be talking about protocols for restoring gut barrier integrity. Talk to you then.