# **Template**

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# **Chronic Digestive Discomfort**

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Updated Nov 18th, 2024

Preview Evidence

## **Evidence rating**

The following protocols were developed using only -quality evidence

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#### Overview

Dysfunctional gastrointestinal processes vary widely. Chronic abdominal pain with persistent or recurrent tendencies may be associated with abnormalities in bowel function and structure. The prevalence of gastrointestinal problems presenting in this way ranges anywhere from 5 to 20% of people being affected. (Ford and Vandvik, 2012)

Depending on the symptoms presented, there are a variety of ways to help ameliorate symptoms. For example, antispasmodics such as peppermint oil can help with pain associated with digestive dysfunction. (Merat et al., 2012) Probiotics, human milk oligosaccharides, and fiber contribute to improving stool consistency by creating a healthy microbiota, which can lend to easier passing and serve as an indicator of digestive health. (Iribarren et al., 2020) (Liang et al., 2019) (Palsson et al., 2020) (Yasukawa et al., 2019)

Based on current research findings, the ingredients in the protocol below have demonstrated efficacy in improving a variety of factors associated with gastrointestinal

upset or digestive dysfunction.

## Peppermint oil

# Peppermint oil

180 mg, 3 times/day, minimum 4 weeks (Cash et al., 2016); other dosages may vary

- 42.4% of patients with irritable bowel syndrome (IBS) were pain free after 8 weeks of supplementation with delayed-release peppermint oil compared to 22.2% in placebo. The proportion of patients reporting persistent pain decreased from 42% to 15% in the peppermint oil group, whereas it increased from 33% to 52% in the placebo group. (Merat et al., 2010)
- Peppermint oil supplementation ameliorated symptoms of IBS at 24 hours, shown by a decrease in Total IBS Symptom Score (TISS) of 19.6%, compared to 10.3% in the placebo group. After 4 weeks, the decrease in TISS scores was 40% in the treatment group compared to 24.3% in the placebo group. (Cash et al., 2016)
- 75% of patients treated with enteric-coated peppermint oil capsules for 4 weeks experienced at least a 50% reduction in TISS scores compared to 38% in the placebo group. (Cappello et al., 2007)

#### **Fiber**

# Soluble dietary fiber

Ranges widely, from 4.1–40 per day for 3–16 weeks as per this systematic review (Nagarajan et al., 2015)

- A systematic review of 22 studies with dose ranging 4.1–40 g per day for 3–16 weeks determined that soluble (but not insoluble) fiber supplementation resulted in a significant improvement in global assessment of symptoms (RR 1.49) as well as abdominal pain scores. (Nagarajan et al., 2015)
- In patients with a tendency toward diarrhea (IBS-D), 5 g per day of partially hydrolyzed guar gum soluble fiber improved and normalized bristol stool scale ratings after 3 months compared to placebo. (Yasukawa et al., 2019)
- After 12 weeks, symptom severity improved by 90 points in the psyllium group (10 g per day) (RR 1.60) compared to 29 points in the placebo and 58 points in bran groups in patients with IBS aged 18–65. The group receiving bran had a high dropout rate due to symptoms of IBS worsening. (Bijkerk et al., 2009)
- A systematic review of 14 studies involving 906 patients found that soluble fiber (but not insoluble fiber) significantly improved IBS symptoms (RR 0.86). (Moayyedi et al.,

2014)

#### **Probiotics**

## **Probiotics**

50 billion CFU, twice per day, minimum 12 weeks, (<u>Preston et al., 2019</u>) or 25–50 billion CFU, 1–3 times per day, as per this systematic review (<u>Didari et al., 2015</u>)

- A systematic review of 15 studies with 1,793 patients found that probiotics reduced pain and symptom severity scores in patients with IBS. Relative risk (RR) of general symptom improvement for 7 of the key trials was 2.14, in favor of probiotics over placebo. (Didari et al., 2015)
- Another systematic review of 43 RCTs found that probiotics reduced the risk of persistent symptoms compared to placebo (RR 0.79). Benefits were seen among global IBS, abdominal pain, bloating, and flatulence scores. (Ford et al., 2014)
- A recent systematic review showed that 7 of 11 of the included studies reported improved IBS symptoms from probiotic supplementation compared to placebo. Multistrain probiotics with an intervention of 8 weeks or more were more likely to have a benefit. (<u>Dale et al., 2019</u>)
- Female patients with IBS-D (diarrhea-predominant IBS) and IBS-C (constipation-predominant IBS) experienced improvements in quality of life and stool frequency and consistency when supplemented with 2 capsules per day for 12 weeks of probiotics containing 50×10^9 CFU of live organisms of *Lactobacillus acidophilus* CL1285, *Lactobacillus casei* LBC80R, and *Lactobacillus rhamnosus* CLR2. (Preston et al., 2019)

#### Ginger

# Ginger

1,200 mg 1 hour before eating, as needed (<u>Hu et al., 2011</u>)(<u>Wu et al., 2008</u>)

- Patients with mild-to-moderate ulcerative colitis experienced a decreased severity of disease activity as well as an improvement in quality-of-life scores after 12 weeks of supplementation at 2,000 mg per day compared to placebo. Malondialdehyde levels (but not total antioxidant capacity) also decreased at both 6 and 12 weeks. (Nikkhah-Bodaghi et al., 2019)
- Two RCTs noted improved digestion, as shown by a faster gastric half-emptying time and increased antral contractions in the treatment group (1,200 mg per day ginger capsule) compared to placebo. (<u>Hu et al., 2011</u>)(<u>Wu et al., 2008</u>)

• Patients with a history of motion sickness experienced a delayed onset of nausea after vection cessation and a decrease in tachygastria activity and vasopressin release. (Lien et al., 2003)

### Glutamine

### Glutamine

## 5 g, three times daily, for eight weeks (20); dosages may vary

- Intestinal hyperpermeability improved in burn victims given 0.5 g/kg/day for 14 days, compared to placebo (14)
- Acute glutamine administration at 0.25-0.9 g/kg fat-free mass 2 hours prior to running in a heat chamber has been shown to reduce GI permeability in a dosedependent manner\_(16)
- Adults with IBS-D symptoms following a GI infection were given 5 g/t.i.d. Glutamine or placebo for 8 weeks; 79.6% of patients in the glutamine group experienced at least a 50 point reduction in IBSS scores, compared to 5.8% in the placebo group (20).

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