

Functional Bowel Health Protocol[‡]

DEVELOPED IN COLLABORATION WITH OUR SCIENTIFIC AND MEDICAL ADVISORS



This protocol is designed to help clinicians differentiate, personalize and phase care for patients presenting with functional bowel concerns, including occasional diarrhea, constipation or mixed bowel patterns.

Functional bowel and motility-related concerns are some of the most frequently encountered digestive challenges in the general population. Current estimates suggest that roughly one in four individuals in the U.S. experiences functional GI symptoms at some point in their lifetime.^{1,2} Functional bowel concerns account for a substantial portion of GI-focused clinical visits, and 76% of individuals find it difficult to manage their symptoms.^{3,4} Functional bowel concerns arise from dynamic interactions between biological, psychological, neuroendocrine and social influences. Rather than originating from structural changes, they represent changes across motility, immune signaling, microbiome balance and central processing pathways.¹

FOUNDATIONAL SUPPORT

In addition to lifestyle optimization and a whole-food, anti-inflammatory diet pattern, consider the following foundational support to help meet daily nutrient needs:[‡]

- **O.N.E.™ Multivitamin** (ONE1 / ONE6 / ONE3)
- **O.N.E.™ Omega** (ON06 / ON03)

FOCUSED SUPPORT

Focused interventions should be selected based on the identified subtype and dominant drivers of the functional bowel concern. The products in this category support common clinical objectives related to functional bowel health, including mucosal integrity, motility and neuroendocrine stability. Choose from the options below, as applicable, based on your clinical objectives:[‡]

CLINICAL OBJECTIVE [‡]	ASSESSMENT [*]	PRODUCT RECOMMENDATIONS	SUGGESTED USE
Microbiome Support	Comprehensive stool analysis	<u>PureGG 25B[*]</u> (Order Code: PGG6) A shelf-stable, highly researched probiotic to support immune, GI and overall health [†]	1 capsule daily, with or between meals
		<u>Poly-Prebiotic Powder</u> (Order Code: PPRP1) A unique powdered blend of prebiotic fibers and polyphenols to support GI and immune function by boosting bifidobacteria and microbiome diversity [†]	1 serving, 1-2 times daily, mixed with a beverage or into food

^{*}Probiotics should be used cautiously in patients where increased levels of methane-producing archaea are a concern⁵.

[‡]This statement has not been evaluated by the Food & Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



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CLINICAL OBJECTIVE [‡]	ASSESSMENT	PRODUCT RECOMMENDATIONS	SUGGESTED USE
Intestinal Barrier Function	Blood LPS, zonulin, occludin, IgA, IgG, Lactulose-Mannitol Ratio	<u>Epi-Integrity Powder</u> (Order Code: EIP1) A great-tasting powder that promotes healthy modulation of mucosal immune responses to support GI integrity [†]	1 scoop, 1-2 times daily. Add 1 serving to 8 oz of water or juice. Shake or stir until dissolved.
		<u>Peptic-Care[‡] (Zinc L-carnosine)</u> (Order Code: PCZ6) Supports cellular repair in the intestine by maintaining healthy cell reproduction and villous function [†]	1 capsule, 1-2 times daily, with meals
Motility	Prolonged fullness after meals and bloating	<u>MotilPro</u> (Order Code: MOP1) An advanced gut-signaling support formula supporting serotonergic and cholinergic function for healthy gut motility [†]	3 capsules, 1-2 times daily, between meals
	Occasional constipation	<u>G.I. Fortify[‡]</u> (Order Code: GIF4) A blend of fiber, herbs and nutrients, supporting overall GI function and occasional constipation [†]	1 serving in 8-12 oz water. Shake, stir or blend briskly and drink immediately. Drink an additional 8-12 oz serving of water following consumption. Daily water intake should be increased when consuming this product.
	Occasional diarrhea	<u>PureBi•Ome™ Intensive*</u> (Order Code: BIOI3) A high-potency, four-strain, clinically researched proprietary probiotic blend combined with <i>Saccharomyces boulardii</i> to support intestinal microbial balance and help reduce the occurrence of occasional diarrhea [†]	1 capsule daily, with a meal

ADDITIONAL SUPPORT

The products in this category offer alternative or added support for bowel and digestive health.

Choose from the options below, as applicable, based on your clinical objectives:[‡]

CLINICAL OBJECTIVE [‡]	ASSESSMENT	PRODUCT RECOMMENDATIONS	SUGGESTED USE
Cytokine Balance within the GI Tract	Occasional abdominal discomfort	<u>SunButyrate™ -TG liquid</u> (Order Code: BTGL) A unique, butyrate-rich triglyceride oil that promotes intestinal health, gut barrier integrity, cytokine balance in the GI tract, bowel motility and abdominal comfort [†]	1 teaspoon, 1-3 times daily, with meals
Microbial Balance	Three-hour breath test or comprehensive stool analysis	<u>MicroDefense w/Oregano</u> (Order Code: MI39) A combination of plant extracts designed to support healthy microbial balance within the GI tract [†]	1 capsule, 1-3 times daily, just before a meal, with 6-8 ounces water, for 2-3 months

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ADDITIONAL SUPPORT CONTINUED

The products in this category offer alternative or added support for bowel and digestive health.

Choose from the options below, as applicable, based on your clinical objectives:[‡]

CLINICAL OBJECTIVE [‡]	ASSESSMENT	PRODUCT RECOMMENDATIONS	SUGGESTED USE
Digestion	Occasional bloating or gas	<p><u>Digestive Enzymes Ultra</u> (Order Code: DEU9, DEU1)</p> <p>A comprehensive blend of vegetarian digestive enzymes to support protein, carbohydrate, fat, fiber and dairy digestion[†]</p> <p>or</p> <p><u>Digestive Enzymes Ultra with Betaine HCl</u> (Order Code: DEUB1, DEUB9)</p> <p>Combines betaine HCl with vegetarian enzymes to support protein, carbohydrate, fat, fiber and dairy digestion[†]</p>	2 capsules with each meal

A FOUR-STEP FRAMEWORK FOR FUNCTIONAL BOWEL CONCERNS

The remainder of this protocol will explore a four-step framework for managing patients with functional bowel concerns. The following will be addressed:

1. Differentiate between functional bowel concerns and other potential health concerns
2. Identify subtype (occasional diarrhea, occasional constipation or mixed)
3. Personalize a phased care plan with diet and lifestyle
4. Track clinical outcomes and adjust care plan accordingly

Step One: Clinical Pattern Differentiation

Functional bowel concerns can share similar clinical patterns with other health concerns. Practitioners are advised to perform a comprehensive functional assessment to confirm that the patient's symptoms are not due to structural changes, non beneficial microorganism exposure, cytokine activity or other underlying metabolic, enzymatic or molecular contributors.⁶

The following tests are often prescribed:

- CBC & CMP
- Serologic tests for antibody response to gluten (Ttg-IgA + total IgA)
- Fecal calprotectin or lactoferrin to determine potential self-tissue response
- Thyroid hormone panel to investigate thyroid influence on motility regulation
- PCR or comprehensive stool test for pathogens and microbial balance

Clinical clues that these and other assessments are warranted include: unintended weight loss, nocturnal symptoms, blood in stool, decreased iron, fever, symptoms starting after age 50 and the patient's family history.

In contrast, functional bowel concerns are increasingly understood as expressions of gut-brain interaction.⁷ Rather than being defined by structural changes, they are characterized by symptom clusters that reflect shifts in one or more core physiological processes, including:

- Mucosal or immune activation patterns
- Changes within the gut microbial ecosystem
- Motility
- Alterations in central nervous system processing that influence digestive function
- Visceral sensitivity

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Step two: Identify Subtype and Key Drivers

Functional bowel concerns can be differentiated into subtypes determined by an individual's predominant clinical manifestation:

- Occasional diarrhea
- Occasional constipation
- Mixed symptoms, primarily constipation with intermittent episodes of diarrhea

Due to the heterogeneous nature of functional bowel concerns, symptoms and severity can vary within each subtype and from individual to individual.

While no single causative factor has been isolated for functional bowel concerns, several key drivers have been identified.

Key Drivers of Functional Bowel Concerns ^{8, 9, 10, 11, 12}	
Occasional Diarrhea	Occasional Constipation
<ul style="list-style-type: none">• Increased levels of hydrogen and hydrogen sulfide-producing bacteria• Changes in bile acid absorption• Changes in carbohydrate absorption (FODMAPS, fructose, lactose)• Increased intestinal permeability• Previous or ongoing non beneficial microorganisms exposure• Reduction in <i>Bifidobacteria</i> <i>Lactobacillus</i> and butyrate-producing organisms• Mast cell activation and histamine signaling• Altered gut-brain axis and autonomic balance• Altered serotonin signaling in the enteric nervous system	<ul style="list-style-type: none">• Methane-producing archaea (e.g., <i>Methanobrevibacter smithii</i>)• Slow colonic transit• Poor fiber tolerance and fiber type mismatch• Changes in thyroid function• Pelvic floor concerns• Altered vagal tone/autonomic balance• Altered serotonin signaling• Estrogen/progesterone shifts• Reduced butyrate-producing organisms• Changes in motility related to previous microorganism exposure

Assessments can help uncover help uncover key drivers, identify subtypes, and support a personalized care plan. They can include:

- Breath testing to evaluate hydrogen, methane and hydrogen sulfide patterns
- Stool analysis to evaluate immune markers (e.g., calprotectin), digestion markers (e.g., pancreatic elastase) and microorganisms when indicated
- Targeted food elimination strategies guided by clinical history
- Micronutrient assessment (B vitamins, vitamin D, iron, ferritin and zinc, which are often poorly absorbed with functional bowel concerns)
- CRP and ESR to examine cytokine activity
- Evaluation for changes in bile acid absorption (in cases with occasional diarrhea)
- Pelvic floor assessment
- Thyroid panel
- Hormone assessment when cycle-related symptoms are present

Step Three: Diet and Lifestyle Recommendations

Diet

Food Sensitivities

Two-thirds of patients with functional bowel concerns report that dietary factors trigger their symptoms, and there is some evidence suggesting that IgG hyperreactivity plays a role in dietary triggers, especially in patients predominantly experiencing occasional diarrhea.⁹

Patients experiencing functional bowel concerns often cannot predict which foods may trigger them or when their symptoms will be aggravated, which can limit their social activities. Incorporating food sensitivity testing may reduce this burden and assist patients with personalizing their diet and nutrient needs.

Low FODMAP

Symptom improvement has been seen in some patients adhering to the Low FODMAP diet.^{13, 14}

A network meta-analysis found the Low FODMAP diet to be the most effective diet strategy among commonly recommended dietary strategies.¹⁵

In patients with occasional diarrhea, utilizing the Low FODMAP diet for 4-6 weeks can be a first-line strategy. When recommending the Low FODMAP diet, a few things should be considered:

- **The effect on the gut microbiome:** Deprivation of FODMAP carbohydrates can affect the production of SCFAs and reduce bacterial counts like bifidobacteria, consequently affecting the integrity of the mucosal barrier.¹⁶
- **The restrictive nature of the Low FODMAP diet:** Long-term adherence may affect nutrient status and prove expensive, difficult and frustrating for the patient. Utilizing the Low FODMAP diet as a therapeutic option should be undertaken in three distinct stages: elimination, reintroduction and personalization.
- **Guidance on food reintroduction:** Once high-FODMAP foods have been eliminated and patients see symptom improvement, they should be guided on how to gradually reintroduce individual FODMAP foods back into their diet, and the patient's tolerance or reaction to each food should be reassessed. Taking the time to assist the patient through the reintroduction phase provides an opportunity to personalize their diet and add a greater variety of tolerable foods over time.

Note that FODMAP foods affect different functional bowel concerns and their subtypes differently. While predominantly used in patients with occasional diarrhea, the Low FODMAP diet may be useful with patients experiencing occasional constipation but often requires pairing with adequate fiber, hydration and motility support.

5R Protocol

The 5R Protocol stands for Remove, Replace, Reinoculate, Repair and Rebalance. It addresses root-cause contributors frequently present in patients, such as:

- Food-related triggers, including alcohol, excess caffeine and processed foods **(Remove)**
- Digestive insufficiencies **(Replace)**
- Altered microbiome patterns **(Reinoculate)**
- Mucosal integrity and permeability **(Repair)**
- Gut-brain axis, stress physiology, sleep and lifestyle **(Rebalance)**

For more information on the 5R Protocol, refer to:

- [Is It a Leaky Gut? Defining What Lurks Beneath a Patient's Symptoms \(Blog\)](#)
- [Nutrient Solutions to Complement the 5R Protocol: A Comprehensive Approach to Maintaining Gut Health \(Blog\)](#)

Additional dietary considerations for patients with occasional constipation:

The primary goal with patients experiencing occasional constipation is to improve motility. Regardless of the diet being followed, first-line care should include gradual soluble fiber introduction, adequate hydration, and regular meal timing and spacing to support the migrating motor complex. Aggressive fiber loading too early in patients with occasional constipation should be avoided. If a patient's bloating worsens, excess insoluble fiber may be the culprit.

Lifestyle Recommendations

The Mind-Body Connection

Patients with functional bowel concerns often present with a broad range of somatic concerns—such as persistent tiredness, sleep disturbances, diffuse musculoskeletal discomfort and cardiopulmonary sensations—that may arise in the absence of identifiable structural changes.¹⁷

Patterns of mood disturbance, including low mood, occasional anxiety and somatic preoccupation can influence how patients process and respond to visceral and extraintestinal-signals.¹⁸

The risk of occasional nervous tension and mood concerns in patients with functional bowel concerns is threefold higher compared to healthy controls¹⁹, and at least 50% of patients with functional bowel concerns describe occasional nervous tension or mood concerns.²⁰

Compared to healthy controls, patients with functional bowel concerns have greater reactivity to stress, which induces alterations in²¹:

- Gastric motility
- Autonomic tone
- HPA axis response
- Visceral perception
- Microbial composition

Given these interactions between emotional processing and physiological stress responses, patients with functional bowel concerns benefit from routine screening for psychological contributors and symptom-related functional limitations.

Assessments can be done during the clinical interview or through validated tools such as GAD7, PHQ9, Health Anxiety Inventory or Sheehan Disability Scale.

During the evaluation, clinicians should explore how life stressors relate to symptom patterns, inquire sensitively about trauma histories and assess the availability and quality of social support.

Patients receiving advice on stress management techniques have reported positive outcomes on functional bowel symptoms and quality of life.²² Techniques can include:

- Gut-directed hypnotherapy
- Breathwork
- Mindfulness
- CBT

CBT, in particular, has been shown to improve cognitive flexibility and may support symptom levels, especially abdominal discomfort.²³

Any stress management technique that supports physiological downregulation and enhances the body's relaxation response can promote greater parasympathetic activity and help patients feel more empowered in managing their symptoms.^{24, 25}

Exercise

Regular engagement in low-impact and high-intensity exercise has shown beneficial effects on symptoms and feelings of well-being in individuals with functional bowel concerns compared to controls.^{24, 25} Individuals with functional bowel concerns experienced increased quality of life, as well as a reduction in mood concerns and occasional nervous tension.²⁵ Exercise can range from yoga and walking to cycling, aerobics and swimming. Regular aerobic exercise reduces symptoms, supports motility and promotes microbial diversity.^{24, 25}

Pelvic Floor Care

Pelvic floor care is especially important in functional bowel concerns, because changes to pelvic floor coordination can significantly impact evacuation and compound occasional constipation symptoms.²⁶ Targeted pelvic floor therapy, notably biofeedback therapy, can help retrain defecatory mechanics, reduce straining and break the cycle of withholding and painful bowel movements.²⁶

Step Four: Track Clinical Outcomes and Adjust

When implementing diet, lifestyle and supplement recommendations, clinical outcomes should be tracked for 4-6 weeks at a time. Clinical outcomes to track are:

- Stool frequency and form (Bristol scale)
- Abdominal discomfort
- Occasional bloating and gas
- Urgency or incomplete evacuation
- Sleep quality
- Energy levels
- Cycle-related symptom shifts (in women)

Diet and supplement recommendations should be reviewed and adjusted every 8-12 weeks depending on the patient's response, with personalized and structured reintroduction of foods. Laboratory assessments should be completed every 3-6 months if needed.

Ongoing assessment and refinement of diet, lifestyle and supplement strategies ensure that care remains responsive to changing clinical needs. Compassionate, individualized guidance can help patients build greater resilience, improve daily functioning and experience meaningful progress over time.

ADDITIONAL RESOURCES

- [Barrier Builders: Nutrients to Support Mucosal Immune Responses and the Intestinal Barrier \(Blog\)](#)
- [Unraveling the Complexity of Functional GI Concerns: Understanding Types, Causes and Solutions \(Blog\)](#)
- [Is It a Leaky Gut? Defining What Lurks Beneath a Patient's Symptoms \(Blog\)](#)
- [Nutrient Solutions to Complement the 5R Protocol: A Comprehensive Approach to Maintaining Gut Health \(Blog\)](#)

Drug-Nutrient Interactions Checker: Provides valuable information on potential interactions between your patients' prescriptions, over-the-counter medications and nutritional supplements.

You can also explore [Pure Encapsulations®](#) to find [On Demand Learning](#), [Clinical Protocols](#) and other resources developed with our medical and scientific advisors.

This protocol is available for download at PureEncapsulationsPro.com/Protocols

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