



The Pathophysiology of Diverticular Disease

Diverticular disease (DD) is a term that includes diverticulitis and diverticulosis. Diverticulosis may be symptomatic or asymptomatic and refers to the presence of diverticula, which are sac-like protrusions of the gastrointestinal lumen that form when the lining of the digestive system bulges into small pouches. Occurrence is likely due to increased intraluminal colonic pressure at points of least resistance. Diverticulitis refers to inflamed diverticula and is usually uncomplicated, but may become complicated by bleeding, obstruction, fistula, or abscess.¹⁻³

Risk factors for the development of diverticulosis include low dietary fiber intake, nonsteroidal anti-inflammatory drug (NSAID) use, constipation, and a sedentary lifestyle.² Factors associated with the DD pathogenesis include older age, genetics, overactivity of colonic smooth muscle, and thickening of the colonic wall.⁴ The pathophysiology of DD is linked to inflammation, colon microbiota, visceral hypersensitivity, and colonic motility.³

The incidence of DD is most common in developed nations, and increases with age; around 10% of people experience this condition at 40 years of age, and increases up to 50% to 70% in those older than 80.⁵ Acute diverticulitis is the third most common gastrointestinal illness that requires hospitalization and accounts for roughly 130,000 hospitalizations per year in the

U.S.² This clinical protocol is designed to support a healthy digestive system and includes evidence-based lifestyle and dietary interventions for individuals with diverticular disease.*

Diagnostic Biomarkers and Clinical Indicators of Acute Diverticulitis

Clinical diagnosis of acute diverticulitis may be based on history and physical findings, such as lower left quadrant pain, signs of peritonitis, hypotension, tachycardia, and history of diverticulosis.^{1,2}

- Comprehensive stool analysis such as the **GI Spotlight** to evaluate the colonic microbiome and level of gut inflammation.
 - Fecal calprotectin, Secretory IgA, and zonulin are relevant markers to assess intestinal inflammation

Initial tests:

- Complete blood count
 - Leukocytosis is common with acute diverticulitis
- Urinalysis to rule out urinary tract infection
- Imaging, such as CT. (Colonoscopy is contraindicated in cases of acute diverticulitis.)

Therapeutic Diet and Nutritional Considerations

- Advise a diet high in fiber for prevention, and in cases of diverticulosis or uncomplicated non-acute diverticulitis.⁶ Fiber should be avoided during acute diverticulitis flares.⁶ Ensure adequate hydration with increased intake of fiber to support healthy bowel motility.
- Evidence no longer supports avoidance of seeds, corn, and nuts.^{2,6}
- Recommend replacing red meat with leaner proteins such as poultry and wild-caught fish. Incidence of DD has been correlated in some research with the highest intake of red meat (>100 grams/day).⁵
- During diverticulitis flares, a brief period of bowel rest may be helpful in some cases. Advise patients to focus on clear liquids like bone broths and soothing teas like ginger or chamomile. As recovery progresses, recommend easy-to-digest foods like bone broth, steamed vegetables, and stewed fruits (e.g., apples or pears), while avoiding citrus.

Lifestyle Interventions

- Promote cessation of tobacco products and alcohol intake.^{2,5}
- Advise an increase in physical activity.⁶
- Educate patients on healthy bowel emptying habits, such as responding to the urge in a timely manner and taking the time to properly empty bowels without strain to avoid exacerbating existing diverticula or contributing to the development of new ones.
- Encourage mind-body activities such as yoga, journaling, meditation, tai chi, and breathwork to help reduce and manage stress.

This information is provided as a medical and scientific educational resource for the use of physicians and other licensed health-care practitioners ("Practitioners"). This information is intended for Practitioners to use as a basis for determining whether to recommend these products to their patients. All recommendations regarding protocols, dosing, prescribing and/or usage instructions should be tailored to the individual needs of the patient considering their medical history and concomitant therapies. This information is not intended for use by consumers.



Supplement Protocol Primary Support:



Diverticulosis

GI Revive®

Dose	1 teaspoon three times per day	Duration	Ongoing
Formula Highlights	GI Revive® offers comprehensive support for optimum gastrointestinal (GI) health and function. GI Revive® in powdered form is sweetened with stevia leaf extract and can be mixed into any beverage or functional food powder, and can be used to support optimal GI health and regularity.*		

Tri-Butyryn Supreme™

Dose	1 softgel 1-2 times per day	Duration	Ongoing to reduce the incidence of flares
Formula Highlights	This formula provides 300 mg of butyric acid to support gut health and immune function by modulating intestinal flora, promoting colonocyte health, and supporting proper gut permeability.*		

PaleoFiber®

Dose	2 teaspoons twice daily	Duration	Ongoing
Formula Highlights	PaleoFiber® is the ultimate fiber product. It is a comprehensive product that contains 12 different types of fiber and none of the allergenic proteins or harsh, irritating compounds commonly found in other fiber products on the market.		

ProbioMed™ 100

Dose	1 capsule per day with a meal	Duration	Ongoing
Formula Highlights	ProbioMed™ 100 is a highly potent, shelf-stable, dairy-free probiotic formulation containing 100 billion CFUs per serving. It consists of 10 of the most highly-researched probiotic strains, with each strain and specific CFU count being fully disclosed. These are robust strains that are capable of surviving the harsh journey to the intestines and are able to attach to the intestinal walls, where they can grow and function effectively to support gastrointestinal health.*		

Diverticulitis (Active Flare)

GI Revive®

Dose	1 teaspoon three times per day	Duration	As needed until flare is resolved
Formula Highlights	GI Revive® offers comprehensive support for optimum gastrointestinal (GI) health and function. GI Revive® in powdered form is sweetened with stevia leaf extract and can be mixed into any beverage or functional food powder, and can be used to support optimal GI health and regularity.*		

Inflammation™

Dose	2 capsules three times per day on an empty stomach	Duration	Ongoing
Formula Highlights	Inflammation™ is a combination of herbs, nutrients, and proteolytic enzymes for promoting a healthy inflammatory response, supporting the natural clearance of proteins like kinin and fibrin, and for supporting healthy lymphatic drainage.* The ingredients in Inflammation™ provide targeted support for a healthy inflammatory response and help protect against oxidative stress.*		

IgGI Shield™

Dose	Mix 1 scoop in water 1-2 times per day	Duration	As needed until flare is resolved
Formula Highlights	IgGI Shield™ combines ImmunLin® with N-acetyl-D-glucosamine to support the structure of the cells of the intestinal lining and to promote a healthy inflammatory response in the cells of the gastrointestinal (GI) tract.*		

ProbioMed™ 250

Dose	1 stick pack per day on an empty stomach	Duration	As needed until flare is resolved
Formula Highlights	ProbioMed™ 250 is our highest potency, shelf-stable, dairy-free probiotics formulation containing 250 billion CFUs per serving. It comes in single-serving stick packs that do not require refrigeration, making them convenient for travelers and anyone on the go.		

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/api/library-assets/literature-reference---diverticular-disease-protocol-references>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Health-care practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities, appropriate monitoring, including liver function tests (LFT) is recommended.

For considerations regarding herb-drug and nutrient-drug interactions, please refer to reliable, evidence-based resources such as the Natural Medicine Database or Stargrove MB, Treasure J, McKee DL. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies*. St. Louis, MO: Mosby-Elsevier; 2008.

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