

GI Revive®

Intestinal Permeability Support*

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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.

GI Revive® is a comprehensive, clinically relevant 15-in-1 formula designed to support gastrointestinal (GI) health and function through a synergistic blend of amino acids, botanical extracts, and minerals.* This formulation includes L-glutamine, an important amino acid for intestinal cell health and integrity, which supports healthy GI permeability and promotes a healthy inflammatory response.* It also features N-acetyl-D-glucosamine (NAG), which promotes a healthy gut barrier function by supporting mucin production and immune balance.* The botanical blend — featuring deglycyrrhized licorice (DGL), aloe vera, marshmallow, okra, cat's claw, and other mucilaginous herbs — helps to soothe and coat the intestinal lining, promote normal GI tissue repair, and maintain GI mucosal health.* Additionally, prune powder and citrus pectin support normal bowel movements, while methylsulfonylmethane (MSM) supports cellular integrity and healthy inflammatory responses.* Together, these carefully selected ingredients support healthy gut permeability, immune function, and optimal digestive health.*

Formula Highlights

- Available in two convenient delivery options: powder and capsules
- Powdered form has a peach flavor with other natural flavors, sweetened with stevia and monk fruit extract. Can be mixed into any beverage or functional food powder
- Provides 1.5 grams of L-glutamine and 1 gram of N-acetyl-D-glucosamine per serving
- Contains a blend of soothing botanicals designed to support gut mucosal health, including DGL (licorice extract), marshmallow, slippery elm, and okra*
- Chelated form of zinc L-carnosine for optimal support of GI health*
- Gluten-free, dairy-free, soy-free; non-GMO

L-Glutamine

L-glutamine is a crucial amino acid that supports gut health, with approximately 30% of the body's glutamine utilized by intestinal cells.¹ It promotes enterocyte proliferation, regulates tight junction proteins, supports healthy inflammatory responses, and protects against cellular stress.^{1,2} Although classified as a non-essential amino acid, glutamine may become "conditionally essential" during illness.¹ Supplementation can help maintain a healthy intestinal barrier, potentially reduce colonic inflammatory cytokines, and support immune function.^{1,2} Additionally, glutamine may positively influence a healthy gut microbiota composition and support individuals with certain GI conditions.^{1,2}

A randomized controlled trial (RCT) in patients with post-infectious irritable bowel syndrome (IBS diarrhea) found that those who consumed 5 g of glutamine three times daily for eight weeks experienced significant reductions in IBS-related complaints, including improved intestinal permeability, reduced daily bowel movement frequency, and better stool form compared to the control group.³ An animal study on ulcerative colitis revealed that glutamine supplementation (with exercise) mitigated unintended weight loss, reduced hemorrhagic and macroscopic intestinal damage, and attenuated pro-inflammatory cytokines, including IL-6 and tumor necrosis factor- α (TNF- α).⁴

N-Acetyl-Glucosamine and Mucin

N-acetyl-D-glucosamine (NAG or GlcNAc) is an amino sugar naturally produced by the body. NAG is integral in the structure and function of glycoproteins and glycosaminoglycans in connective tissues, cell walls, and cell surfaces.⁵ In vitro and animal models have shown that NAG helps promote tight junction integrity between intestinal cells, thereby promoting a healthy gut barrier function and gut microbial environment and potentially supporting healthy nutrient absorption.⁶⁻¹⁰ Additionally, a laboratory study demonstrated that NAG reduced biofilm formation by pathogenic *E. coli*.¹¹ NAG supports GI and immune health and may be clinically relevant to individuals with gut-inflammatory conditions, such as inflammatory bowel disease (IBD).^{5,6,9,12,13}

GI Revive® synergistically combines mucin and NAG to support healthy mucin production.^{5,7,10-12} Mucins represent a family of glycoproteins secreted primarily by intestinal epithelial cells that may play an important role in mucosal protection and communication with external environments.¹⁴ They coat the intestinal lining and may help support the colonization of health-promoting intestinal microbes, protect against epithelial cell injury, and serve as a lubricant to aid the passage of materials through the GI tract.¹⁵ Together, mucin and NAG can help repair GI mucosal health.*

Benefits*

- Promotes gastrointestinal and digestive health^{1-3,5,12,13,22,23,30,35,42}
- Supports healthy intestinal permeability^{1,2,8,9,26,26}
- Helps support gut mucosal repair and integrity^{8,10,23,24,26,26,33,37,38}
- Helps promote normal bowel movements^{3,48,49,51}
- Supports healthy gut-associated immune and inflammatory responses^{2,7,11,16,18,25,40,41,47}

Supplement Facts

Serving Size 7 capsules
Servings Per Container 30

Amount Per Serving	% Daily Value	Amount Per Serving	% Daily Value
Zinc (from Zinc L-Carnosine)	17 mg 155%	Marshmallow (<i>Althea officinalis</i>)(root)	100 mg *
L-Glutamine	1.5 g *	Okra Extract (<i>Abelmoschus esculentus</i>)(fruit)	100 mg *
N-Acetyl-D-Glucosamine	1 g *	Cat's Claw (<i>Uncaria tomentosa</i>)(bark)	100 mg *
Citrus Pectin	1 g *	Methylsulfonylmethane (MSM)	100 mg *
Deglycyrrhized Licorice Extract (DGL)(<i>Glycyrrhiza glabra</i>)(root)	400 mg *	Quercetin	100 mg *
Aloe Vera (<i>Aloe barbadensis</i>)(leaf)	300 mg *	Prune Powder	100 mg *
Slippery Elm (<i>Ulmus rubra</i>)(bark)	200 mg *		
Mucin	200 mg *		
Chamomile Extract (<i>Matricaria chamomilla</i>)(flower)	100 mg *		

Other Ingredients: Gelatin (capsule), vegetable stearate.

Supplement Facts

Serving Size 8 grams (approx. one scoop)
Servings Per Container 28

Amount Per Serving	% Daily Value	Amount Per Serving	% Daily Value
Calories	15	Marshmallow (<i>Althea officinalis</i>)(root)	100 mg *
Total Carbohydrate	4 g 1%*	Chamomile Extract (<i>Matricaria chamomilla</i>)(flower)	100 mg *
Zinc (from Zinc L-Carnosine)	17 mg 155%	Okra Extract (<i>Abelmoschus esculentus</i>)(fruit)	100 mg *
L-Glutamine	1.5 g *	Cat's Claw (<i>Uncaria tomentosa</i>)(bark)	100 mg *
N-Acetyl-D-Glucosamine	1 g *	Methylsulfonylmethane (MSM)	100 mg *
Citrus Pectin Cellulose	1 g *	Quercetin	100 mg *
Deglycyrrhized Licorice Extract (DGL) (<i>Glycyrrhiza glabra</i>)(root)	400 mg *	Prune (<i>Prunus domestica</i>)(fruit)	100 mg *
Aloe Vera Extract (<i>Aloe barbadensis</i>)(leaf)	300 mg *		
Slippery Elm Extract (<i>Ulmus rubra</i>)(bark)	200 mg *		
Mucin	200 mg *		

Other Ingredients: Tapioca maltodextrin, natural flavor, citric acid, silicon dioxide, PhytoSweet® blend (rebaudioside M, steviol glycosides [from *Stevia rebaudiana* leaf]), black tea extract (*Camellia sinensis subsp.*)(leaf), luo han guo extract (fruit).

NAG promotes gut-associated immune health by supporting T and B cell development, macrophage regulation, and neutrophil activation through O-GlcNAcylation.¹⁶⁻¹⁹ NAG acts as a triple modulator of inflammatory responses, myelination, and neurodegeneration, aiding N-linked glycan biosynthesis. These glycans interact with galectins to co-regulate glycoprotein clustering, signaling, and endocytosis.^{16,19,20} For instance, a mechanistic trial showed that much higher administrations of NAG at 6 g/day (n = 18) and 12 g/day (n = 16) for four weeks may inhibit markers of neuroinflammation and neurodegeneration in patients with multiple sclerosis.²⁰ N-glycan branching enhances immune cell function, particularly in T cells, natural killer cells, and dendritic cells, reducing excessive T cell activation, including Th1 and Th17 responses.^{13,19} Together, these benefits help NAG promote balanced immune responses and mucosal barrier health and may support individuals with overactive immune responses.^{7-9,19,21}

Among 12 children with severe treatment-resistant IBD (10 with Crohn's disease, two with ulcerative colitis) who were given 3 to 6 g/day of NAG, eight children showed clear improvement, while four required resection.⁵ In an open-label clinical trial, 34 adults with IBD received 6 g/day (2 g three times per day) of NAG for four weeks. Symptom scores were assessed at baseline and the study's conclusion. Notably, 30 out of 34 patients (88.1%) reported reduced IBD symptoms, with 58.8% noting improvements in abdominal pain and a 49% reduction in symptom scores ($P = 0.00022$). Additionally, 64.7% of patients experienced improvements in diarrhea, accompanied by a 47% reduction in symptom scores ($P = 0.0003$). Significant decreases were also observed for nausea, mucus discharge, and rectal bleeding.¹²

Zinc Carnosine

Zinc carnosine (Znc) is a chelated compound of L-carnosine and zinc that helps to stabilize the gut mucosa and membrane, support gastric tissue integrity, and promote healthy inflammatory response and antioxidant status.²²⁻²⁴ Research suggests that combining zinc and L-carnosine is superior to using either alone, as L-carnosine enhances zinc absorption and its delivery to tissues in a delayed or extended-release manner.²²

ZnC supplementation, ranging from 100 to 200 mg/day, has shown to be clinically relevant to individuals with confirmed gastric ulcers (n = 258).²² In vitro and animal studies have shown that ZnC stimulates cell migration and proliferation and reduces gastric and small intestinal injury. For example, oral ZnC decreased gastric injury by 75% at a concentration of 5 mg/mL in a rat model.²² ZnC may also promote a healthy intestinal microbial environment, as a systematic review and meta-analysis (n = 396) concluded that ZnC (around 150 mg/day) should be considered a valuable adjunct in the management of *H. pylori*.²³

Methylsulfonylmethane and Quercetin

GI Revive® includes methylsulfonylmethane (MSM) and quercetin, two beneficial compounds to support GI health.* Quercetin helps to stabilize mast cells and promotes tissue health by supporting antioxidant status.^{25,26} It has also been shown in rodent models to promote GI motility and mucin secretion.²⁶ MSM supports gut health by promoting healthy inflammatory and immune responses and supporting antioxidant status by inhibiting nuclear-factor kappa beta (NF-κB) activity and reducing the expression of enzymes and cytokines involved in producing reactive oxygen species.²⁷ MSM has also been shown to downregulate the expression of cyclooxygenase-2 (COX-2) and inducible nitric oxide synthase (iNOS), helping to reduce free radicals.²⁷

Botanicals to Help Soothe and Coat the Intestinal Lining*

GI Revive® features mucilaginous botanicals that support gut health by soothing and coating the intestinal lining, promoting the body's normal tissue and healing repair, and supporting a healthy intestinal barrier function.²⁸⁻³⁴ Together, these botanicals may support GI mucosal health, immune function, healthy GI microbial environments, healthy inflammatory responses, and antioxidant status in the GI tract.²⁸⁻⁴³

Due to these benefits, RCTs have shown that DGL (licorice extract), derived from *Glycyrrhiza glabra*, may be clinically beneficial for individuals with functional dyspepsia (n = 50), gastric ulcers (n = 33), or an *H. pylori* bacterial infection (n = 107) when compared to a placebo.³⁴⁻³⁶ In vitro studies reveal that slippery elm can increase the production of beneficial short-chain fatty acids (SCFAs), including butyrate and propionate.²⁹ Healthy SCFA production reduces intestinal pH, attenuates pathogenic bacteria growth, promotes GI motility, and supports healthy inflammatory responses.⁴⁴⁻⁴⁶ Aloe vera possesses potential prebiotic properties that may promote the proliferation of beneficial bacteria in the colonic microbial environment.³⁰ One RCT (n = 160) concluded that aloe vera may be clinically beneficial for those with IBS by mitigating symptom severity, although it was not superior to the control group (inulin).³⁰

Marshmallow may potentially be supportive to those with ulcers, based on rodent models, and it has been shown in vitro to promote healthy inflammatory and immune responses and a healthy microbial environment.^{32,37-39} In vitro studies highlight that chamomile promotes antioxidant status and healthy inflammatory responses and may promote a healthy microbial environment.^{32,39} Moreover, a rodent study revealed that chamomile exhibits potential gastroprotective properties against oxidative stress.³⁸ Lastly, a systematic review of 26 preclinical studies (in vitro and animal studies) concluded that okra promotes healthy inflammatory responses by targeting C-reactive protein, TNF-α, IL-1β, and IL-6.⁴⁰ Animal studies suggest that okra supplementation may support healthy gut-brain communication and microbial balance.⁴¹ Furthermore, okra has also been shown in vitro to help attenuate the proliferation of pathogenic microorganisms, including *H. pylori*, *S. aureus*, *Mycobacterium* spp., *E. coli*, *B. cereus*, and *K. pneumoniae*.^{42,43}

Normal Bowel Movement Support*

Prune powder and citrus pectin may help promote gastric function and regular bowel movements.* Citrus pectin may also support healthy inflammatory response, antioxidant status, and immune and cellular health.⁴⁷ Oligosaccharides derived from citrus pectin, classified as nondigestible carbohydrates, may help support immunometabolism, healthy inflammatory response, and optimal GI microbiome composition and diversity, including forming health-supportive metabolites such as SCFAs.⁴⁷ Prunes contain phytonutrients that may promote normal GI motility, regularity, microbiome diversity, and healthy bowel function without the potential adverse effects of harsh laxatives.⁴⁸⁻⁵⁰ They also contain high amounts of sorbitol and chlorogenic acid that may help maintain optimal gastric function.⁵¹

Recommended Use:

Powder: Mix 8 grams (approximately one scoop) in water or other liquid per day or as directed by your health-care practitioner.

Capsules: Take seven capsules per day, or as directed by your health-care practitioner.

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

<https://www.designsforhealth.com/api/library-assets/literature-reference---gi-revive-tech-sheet-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.

***These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.**

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