

GI-Restore



Comprehensive Gut-Healing Formula | VA-119 / VA-926

GI-Restore is a comprehensive formula to help relieve inflammatory conditions of the GI tract and repair the linings of the gut via multiple mechanisms:

1. Support intercellular tight junctions
2. Increase mucus secretion in the stomach
3. Coat gut linings to soothe and protect damaged/ inflamed tissue
4. Anti-inflammatory and anti-histamine actions - ensure gut lining integrity and regulate acid secretion
5. Promote proper tissue formation and regeneration

Key Features:

- **Polaprezinc (Zinc L-Carnosine)** – helps to protect intercellular tight junctions and reduce gut hyper-permeability.
- **Combination of herbal demulcents – DGL (10:1) and Slippery Elm** – to coat and soothe inflamed GI linings.
- **L-glutamine** to promote tissue regeneration in the GI tract.
- **Quercetin** to exert anti-histamine and anti-inflammatory effects in the gut.
- Powder form to ensure contact throughout the entire GI tract.

Indications: stomatitis, GERD, gastritis, peptic ulcer, leaky gut syndrome, IBD, post-bowel surgery or post-chemotherapy recovery

Description:

Polaprezinc (Zinc L-Carnosine)

Polaprezinc is a chelate compound consisting of zinc and L-carnosine. Polaprezinc works to restore intercellular tight junctions and reduce gut permeability from chronic inflammation. It also stimulates mucus protection³ and exerts antioxidant and anti-inflammatory actions. In Japan, polaprezinc is commonly used for the treatment of gastric ulcers.

A human clinical study showed that polaprezinc was able to counteract the small bowel damage caused by indomethacin (an NSAID). Participants treated with indomethacin saw a 3-fold increase in gut permeability. In contrast, those treated with indomethacin plus polaprezinc (37.5 mg twice daily) did not show any increase in small intestinal permeability.¹²

In a randomized controlled trial involving patients with low-dose-aspirin-induced small bowel injury, polaprezinc therapy for 4 weeks was able to significantly decrease erosions/ulcers and

Quantity: 105 g | 84 servings

Dosage Form: Powder

Ingredients (per 1/2 teaspoon):

Slippery Elm Extract (4:1) (*Ulmus rubra*).....150 mg
(branch bark) (water extract)
(equivalent to 600 mg of dried herb)
DGL (Deglycyrrhized Licorice) (10:1).....152 mg
(*Glycyrrhiza glabra*) (root)
(equivalent to 1520 mg of dried herb)
Zinc L-carnosine (polaprezinc).....25 mg
L-Glutamine.....500 mg
Quercetin (isolate).....50 mg

Non-medicinal Ingredients: None.

Suggested Use: Adults - Take 1/2 teaspoon, 3 times a day, or as recommended by your health care practitioner.

inflammation ($p < 0.05$), as identified by capsule endoscopy.¹

In another randomized controlled trial, 31 post-radiation/chemotherapy patients with head/neck tumors were administered polaprezinc as an oral rinse. The results showed that polaprezinc was able to significantly reduce the incidence of symptoms associated with oral mucositis, such as pain, xerostomia, and taste disturbances.²

Polaprezinc has also been administered as an enema in patients with ulcerative colitis ($n=18$) in a placebo-controlled trial.³ Significant improvements of the endoscopic scores were seen for the rectum ($p=0.004$), sigmoid colon ($p=0.03$), and descending colon ($p=0.04$) in patients administered with the polaprezinc enema.

Deglycyrrhized Licorice (DGL)

Licorice is widely used in herbal medicine as a demulcent to help relieve inflammatory conditions of the GI tract, such as peptic ulcer disease (PUD) and chronic GERD.

DGL is a form of licorice with the removal of one of its constituents – glycyrrhizin. Glycyrrhizin could potentially cause high blood



pressure via its action in the aldosterone-renin axis.¹³

Therefore, DGL can be taken in a higher dose for a longer period of time, providing an efficacious treatment and protection against chronic inflammatory conditions of the gut.

Slippery Elm

Slippery Elm is traditionally used in herbal medicine as a demulcent for the GI tract and the respiratory system. The principle constituent for the soothing demulcent action is mucilage. Slippery elm – when taken internally – not only coats and thickens the mucosa, but also causes reflex stimulation of nerve endings in the GI tract, leading to increased mucous secretion and a protective effect on the gut lining.⁵

L-Glutamine

Glutamine is the primary source of energy for the epithelial cells, especially those of the small intestine. It also helps to build healthy muscle tissue and support immune function during periods of metabolic stress.

During major medical treatments such as surgery, radiation/chemotherapy, or protease-inhibitor treatment for HIV/AIDS,^{6,7} glutamine becomes especially scarce in the body as it is used up for the healing and repair of damaged cells.

In patients with cancer, glutamine storage is depleted because tumor cells are major glutamine consumers and compete with the host for circulating glutamine.³ Furthermore, chemotherapy is associated with inducing significant worsening of intestinal absorption and intestinal permeability,⁸ resulting in subsequent intestinal mucosal damage. A clinical trial has shown that oral glutamine supplementation attenuates intestinal permeability in patients with esophageal cancer during chemotherapy.⁹

Glutamine can also increase the ability of the gastrointestinal tract to absorb nutrients, which is beneficial for convalescing patients, whose bodies need the nutrients for repair and recovery, and those with short bowel syndrome¹⁰ and Crohn's disease.

Quercetin

Quercetin is shown to inhibit antigen-induced histamine release¹¹, and in turn help regulate stomach acid secretion. It also has an immuno-modulating effect on dendritic cell function, making quercetin an invaluable ingredient in inflammatory conditions of the bowel.

Reference:

1. Watari I, Oka S, Tanaka S, Aoyama T, Imagawa H, Shishido T, Yoshida S, Chayama K. Effectiveness of polaprezinc for low-dose-aspirin-induced small bowel mucosal injuries as evaluated by capsule endoscopy: a pilot randomized controlled study. *BMC Gastroenterol* 2013. 13:108.
2. Watanabe T, Ishihara M, Matsuura K, Mizuta K, Yoshinori I. Polaprezinc prevents oral mucositis associated with radiochemotherapy in patients with head and neck cancer. *Int J Cancer* 2010. 127:1984-1990.
3. Itagaki M, Saruta M, Saijo H, Mitobe J, Arihiro S, Matsuoka M, Kato T, Ikegami M, Tajiri H. Efficacy of zinc-carnosine chelate compound, Polaprezinc, enemas in patients with ulcerative colitis. *Scandinavian Journal of Gastroenterology* 2014. 49:164-172.
4. Hoffmann D. 2003. *Medical Herbalism: The Science and Practice of Herbal Medicine*. Rochester (VT): Healing Arts Press.
5. *The Review of Natural Products by Facts and Comparisons*. St. Louis, MO; Wolters Kluwer Co., 1999.
6. Noyer CM, Simon D, Borczuk A, Brandt LJ, Lee MJ, Nehra V. A double-blind placebo-controlled pilot study of glutamine therapy for abnormal intestinal permeability in patients with AIDS. *American Journal of Gastroenterology*. 1998. 93 (6): 972-975.
7. Shabert JK, Winslow C, Lacey JM, Wilmore DW. Glutamine-antioxidant supplementation increases body cell mass in AIDS patients with weight loss: a randomized, double-blind controlled trial. *Nutrition*. 1999. 15 (11-12): 860-864.
8. Daniele B, Perrone F, Gallo C, Pignata S, De Martino S, De Vivo R, Barletta E, Tambaro R, Abbiati R and D'Agostino L. Oral glutamine in the prevention of fluorouracil induced intestinal toxicity: a double-blind, placebo controlled, randomized trial. *Gut*. 2001. 48:28-33.
9. Yoshida S, Matsui M, Shirouzu Y, Fujita H, Yamana H and Shirouzu K. Effects of Glutamine Supplementation and Radiochemotherapy on Systemic Immune and Gut Barrier Function in Patients with Advanced Esophageal Cancer. *Annals of Surgery*. 1998. 227 (4): 485-491.
10. Scolapio JS, McGreevy K, Tennyson GS, Burnett OL. Effect of glutamine in short-bowel syndrome. *Clinical Nutrition*. 2001. 20(4): 319-323.
11. Middleton C Jr, Drzewiecki G, Krishnarao D. Quercetin: an inhibitor of antigen-induced human basophil histamine release. *J Immunol* 1981. 127: 546.
12. Mahmood A, Fitzgerald AJ, Marchbank T, Ntatsaki E, Murray D, Ghosh S, Playford RJ. Zinc carnosine a health food supplement that stabilises small bowel integrity and stimulates gut repair processes. *Gut* 2007. 56: 168-175.
13. Takeda R, Morimoto S, Uchida K, Nakai T, Miyamoto M, Hashiba T, Yoshimitsu K, Kim KS, Miwa U. Prolonged pseudoaldosteronism induced by glycyrrhizin. *Endocrinol Jpn* 1979. 5: 541-547.

For Education Purpose Only: The entire contents are not intended to be a substitute for professional medical advice, diagnosis, or treatment. Always seek the advice of your physician or other qualified health provider with any questions you may have regarding a medical condition. Never disregard professional medical advice or delay in seeking it because of something you have read in this presentation. All statements in this article have not been evaluated by the Food and Drug Administration and are not intended to be used to diagnose, treat, or prevent any diseases.