



# STOMACH SUPPORT FORMULA

## CLINICAL APPLICATIONS

- Promotes Healthy Microbial Balance in the GI tract
- Soothes the Stomach and GI tract
- Helps Maintain Gastro-Intestinal Comfort

## GASTROINTESTINAL HEALTH

This product is formulated to support the health of the stomach lining and gastrointestinal (GI) tract with unique ingredients that promote microbial balance and a healthy inflammatory process. This product contains the following ingredients, provided at optimal doses for best efficacy: zinc carnosine, a zinc complex of L-carnosine approved in Japan since 1994 for its use in stomach health; mastic gum, traditionally used to protect the stomach lining and shown in studies to promote microbial balance; bismuth citrate, used to promote normal bacterial growth, and for its soothing action on the gastric and mucosal lining; and berberine sulfate, a compound with bacterial-balancing properties.

### Overview

The Centers for Disease Control and Prevention estimates that approximately two-thirds of the world's population has stomach microbial balance concerns. While some will never experience discomfort, others may need support. Maintaining healthy microbial balance and a strong immune system is integral to optimal GI health, as well as overall health. In addition, since the body's immune system is a complex and dynamic defense system, healthy microbial balance helps ensure optimal immune function. Research has shown that the natural ingredients in this product offer important benefits for the stomach lining and GI tract.

### Mastic Gum<sup>†</sup>

Mastic gum is a resinous product which is obtained from the stem and leaves of the mastic tree (*Pistacia lentiscus*). The mastic tree is an evergreen shrub native to the Mediterranean Basin and has historically been used to support the health of

the stomach. In a double-blind study, 60 patients randomly assigned to receive mastic (1 g/ day), or placebo, for two weeks demonstrated that mastic gum supported the health of the stomach lining in 78% of the patients in the control group (versus 22% of those receiving placebo).<sup>[1]</sup> Mastic gum has also been shown to promote bacterial balance in the stomach.<sup>[2]</sup>

### Bismuth Citrate<sup>†</sup>

Bismuth citrate is a naturally occurring mineral, frequently used to soothe the gastric and mucosal linings.<sup>[3]</sup> Bismuth citrate also promotes microbial balance in the stomach.<sup>[4]</sup> Bismuth citrate offers a key advantage when compared to other bacterial-balancing therapies. While it is very common for bacteria to develop a resistance to various bacterial-balancing agents, it is unlikely they will develop resistance to bismuth citrate.

### Zinc Carnosine<sup>†</sup>

Zinc carnosine has been approved in Japan since 1994 for its use in stomach health. Zinc is a mineral with potent antioxidant, inflammation balancing, gastro-protective qualities. The health-promoting effects of zinc are enhanced significantly when combined with the essential nutrient, carnosine. Japanese scientists have led the way in developing this zinc carnosine compound, which combines zinc and carnosine linked by a chemical bond. Research has demonstrated that zinc carnosine stabilizes the mucosal lining of the stomach and small intestines. In a study examining the effects of zinc carnosine on animal digestive tracts, following exposure to indomethacin (a potent NSAID well known for its gastritis-producing tendencies) or to stress, this nutrient combination was shown to support gastric and intestinal

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health by stimulating the migration and growth of cells. In the human clinical trial based on the same model, 10 healthy volunteers consumed indomethacin (50 mg three times daily) along with placebo, or zinc carnosine. Indomethacin increased gut permeability (impaired barrier function of the gut's lining) by a factor of three in the placebo group. As opposed to the placebo group, the control group consuming zinc carnosine showed no increase at all in gut permeability.<sup>[5]</sup>

### Berberine Sulfate<sup>†</sup>

Berberine sulfate is a botanical extract found in the roots and barks of various plants including Oregon grape root (*Berberis aquifolium*), barberry (*Berberis vulgaris*) and goldenseal (*Hydrastis canadensis*). Berberine has a long history of use in both Ayurvedic and Chinese medicine. Berberine extract has been shown to provide a multitude of health-promoting properties, including: supporting immune response by increasing blood flow to the spleen and activating immune compounds such as macrophages; promoting microbial balance by inhibiting the adherence of microorganisms to mucosal and epithelial surfaces; and supporting inflammatory balance in the body via inhibition of arachidonic acid release from cell membrane phospholipids, and inhibition of thromboxane A2 from platelets.<sup>[6]</sup>

### Directions

1 capsule two times per day or as recommended by your health care professional.

### Does Not Contain

Gluten, yeast, artificial colors and flavors.

### Cautions

Do not consume this product if you are pregnant or nursing. Consult your physician for further information.

Supplement Facts <sup>v1</sup>		
Serving Size 1 Capsule		
Servings Per Container 60 & 90		
1 capsule contains	Amount Per Serving	% Daily Value
Zinc (as Carnosine)	8.5 mg	57%
Mastic Gum Extract	250 mg	*
Berberine Sulfate Hydrate	150 mg	*
Bismuth Citrate USP	125 mg	*
Zinc Carnosine	37.5 mg	*
* Daily Value not established		

### References

1. Al-Habbal MJ, Al-Habbal Z, Huwez FU. A double-blinded controlled clinical trial of mastic and placebo in the treatment of duodenal ulcer. *Clin Exp Pharmacol Physiol* 1984; 11:541-544.
2. Huwez FU, Thirlwell D, Cockane A, Ala'Aldeen DA. Mastic gum kills *Helicobacter pylori*. *N Engl J Med* 1998; 339:1946.
3. Cammarota, G., Cannizzaro, O. et al. Five-day regimens containing ranitidine bismuth citrate plus high-dose clarithromycin and either amoxicillin or tinidazole for *Helicobacter pylori* infection. *Aliment Pharmacol Ther* 2000; 14(1):73-77.
4. Lambert, J. R. and Midolo, P. The actions of bismuth in the treatment of *Helicobacter pylori* infection. *Aliment Pharmacol Ther* 1997; 11 Suppl 1:27-33.
5. Mahmood A, FitzGerald AJ, Marchbank T, et al. Zinc carnosine, a health food supplement that stabilizes small bowel integrity and stimulates gut repair processes. *Gut* 2007 Feb;56(2):168-175.
6. Monograph: Berberine. *Altern Med Rev* 2000; 5(2); 175-177.

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