



## Clinical Applications

- Relieve Gastric Discomforts (e.g. upset stomach, belching, burping, bloat, episodes of indigestion, mild nausea)
- Support Healthy Balance of G.I. Flora
- Protect and Support the Integrity of the Gastric Mucosa
- Provide Antioxidant Protection for Gastric cells
- Inhibit Inflammatory Cytokine Expression in Gastric Cells

*GastroHeal™ is a safe, high-potency, stable, patented zinc-carnosine complex with proven efficacy for the relief of gastric discomforts and protection of the gastric tissues. GastroHeal™ is effective as a stand alone or can be used to complement conventional gastric support and/or non-steroidal, anti-inflammatory protocols. The stomach-supportive benefits of zinc-carnosine have been demonstrated by more than 40 published studies.*

**All Nutri Medical® Formulas Meet or Exceed cGMP quality Standards**

## Discussion

A wide range of treatments exist for the approximately 25-40% of Americans who suffer from symptoms related to dyspepsia. Commonly used antacids and anti-inflammatory drugs like NSAIDS used regularly impact digestion and the mucosal lining, resulting in a gastric environment friendly to a specific problematic bacterial strain.<sup>1</sup> Whereas common stomach health products either neutralize or block gastric acid, GastroHeal™ supports the stomach's natural "cytoprotective" defense mechanisms. In human studies among 691 subjects, including clinical trials that showed improvement in endoscopic healing rates at both 4 and 8-week time points, zinc-carnosine exhibited high efficacy without any serious side effects.<sup>2</sup>

Carnosine is a naturally-occurring di-peptide composed of the amino acids, L-histidine and β-alanine. Carnosine can form stable complexes (ligands) with ion minerals like zinc and copper. GastroHeal™ contains a unique, patented zinc L-carnosine complex that has been in wide clinical use in Japan since 1994. GastroHeal™ differs chemically and biologically from a simple combination of zinc and L-carnosine and has been shown to be approximately three times more effective than supplementing with either zinc sulfate or L-carnosine individually.<sup>3</sup>

The healthy gastric mucosal lining protects the stomach unless it is overburdened by the damaging effects of stress, bacteria or irritating substances. Carnosine and zinc each have wound-healing properties; therefore it is not surprising that the zinc L-carnosine ligand significantly protects and has been shown to heal the gastric lining, re-establishing balance within the stomach in a short time frame.<sup>4,5</sup>

Zinc L-carnosine complex does not rapidly breakdown in the stomach juice because it is a polymer. Japanese researchers found that this prolonged-release complex adheres to damaged areas of the stomach lining and forms a new mixed ligand complex with other body components (perhaps proteins, like albumin) at the site of the damage. At some point, a ligand exchange takes place freeing the L-carnosine and zinc from the complex and making each available to support the healing process.<sup>6</sup> L-carnosine combats free radicals<sup>7</sup> and zinc reduces inflammation.<sup>8</sup> Animal studies have demonstrated the zinc-carnosine complex maintains the homeostasis of the gastric mucosa not only by promoting repair of damaged tissue,<sup>9</sup> but also by its anti-oxidative, membrane-stabilizing capability<sup>10</sup> and by protecting gastric cells via promotion of mucous production.<sup>11</sup> The zinc-carnosine complex also blunts genetic pro-inflammatory signaling and of the release of pro-inflammatory cytokine expression in the gastric epithelial cells.<sup>12</sup>

This complex has been shown to have selective anti-bacterial activity against a specific common strain known to weaken the gastric mucosa.<sup>6</sup> The anti-urease activity of the complex may be responsible for its effect upon this bacteria.



## Supplement Facts

Serving Size: 1 Tablet  
Servings Per Container: 60

	Amount Per Serving	%Daily Value*
Zinc (as zinc-carnosine)	16 mg	100%
Zinc-Carnosine	75 mg	**

\*\* Daily Value not established.

\* Percent Daily Values are based on a 2,000 calorie diet.

**Other Ingredients:** Isomalt (Veg), Stearic Acid (Veg), Magnesium Stearate (Veg), Modified Cellulose (Veg), Silica.

## Dosing:

Swallow whole or chew one tablet with or after a meal, morning and evening; then 1-2 tablets daily for maintenance or use as directed by your health-care practitioner. Compatible with antibiotic protocols for gastric health.<sup>14</sup>

## References

1. Sanduleanu S, et al. Double gastric infection with Helicobacter pylori and non-Helicobacter pylori bacteria during acid-suppressive therapy: increase of pro-inflammatory cytokines and development of atrophic gastritis. *Aliment Pharmacol Ther*. 2001 Aug;15(8):1163-75 [PMID: 11472319]
2. Compilation of numerous studies presented in *Jpn Pharmacol Ther* 1992;(20)1
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5. Arakawa T, Satoh H, Nakamura A, et al. Effects of zinc L-carnosine on gastric mucosal and cell damage caused by ethanol in rats. Correlation with endogenous prostaglandin E2. *Dig Dis Sci* 1990;35:559-66.
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7. Carnosine and carnosine-related antioxidants: a review. *Curr Med Chem*. 2005;12(20):2293-315 [PMID: 16181134]
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9. Seiki M. et al. [Effect of Z-103 on wound healing by dermal incision in guinea pigs] *Nippon Yakurigaku Zasshi*. 1992 Aug;100(2):165-72 [PMID: 1385281]
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11. Arakawa T, et al. Effects of zinc L-carnosine on gastric mucosal and cell damage caused by ethanol in rats. Correlation with endogenous prostaglandin E2. *Dig Dis Sci*. 1990 May;35(5):559-66 [PMID: 2331952 ]
12. Tadahito Shimada, et al. Polaprezinc down-regulates pro-inflammatory cytokine-induced Nuclear Factor- B activation and Interleukin-8 Expression in gastric epithelial cells . *J Pharmacol Ther* 1999; 291(1); 345-352
13. See ref #6
14. Kashimura H, et al. Polaprezinc, a mucosal protective agent, in combination with lansoprazole, Amoxicillin and Clarithromycin increases the cure rate of Helicobacter pylori infection. *Aliment Pharmacol Ther* 1999;13:483-487

Additional references available upon request .

## Cautions:

Keep out of reach of children. Consult a healthcare practitioner before using.

\*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.