

# Maintaining optimal gastro-intestinal health – how can supplements help?



*Learn about some novel ingredients for GI health from my good colleagues at [Protocol for Life Balance](#). Their formulas are backed by the latest science.*

*–Dr. Ronald Hoffman*

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The gastro-intestinal (GI) tract is made of an extraordinarily complex system of organs working together to ensure that the foods we eat are smoothly and properly digested. It is also a powerful barrier against environmental aggressors, and the host of an abundant symbiotic microbiota. The GI tract must be permeable enough to let nutrients reach the general circulation while, at the same time, selective enough to prevent unwanted chemicals and microorganisms from penetrating the body. With such an arduous task to complete, our GI tracts can really benefit from dietary supplements that help to maintain the integrity of the GI lining and ensure a smooth digestive process.\*

It would not be possible to list all the dietary supplements available to support a healthy GI tract in one article, so we will focus here on three compounds that work in different ways to support a healthy GI lining and healthy digestion: zinc-carnosine complex, melatonin, and peppermint oil.\*

The main constituent of the zinc-carnosine complex is zinc, an essential micronutrient present in all cells of the body, where it is known to be an essential structural component of proteins.\* Zinc plays a major role in a variety of functions within the body such as wound healing, immune function, growth and development, and the regulation of various endocrine functions.\* Zinc is also an essential nutrient in gut barrier function, ensuring that the intestinal wall is strong and non-porous.\*

Carnosine, the other part of the zinc-carnosine complex, consists of the amino acids beta-alanine and L-histidine. In laboratory experiments, it has been shown to function as a free radical scavenger.\* Carnosine is also involved in many cellular biological processes, including modulation of the production of compounds involved in the aging process, regulation of enzymatic activity, and the ability of impact nitric oxide release.\* At the cellular level, these functions contribute to carnosine's ability to support normal wound healing.\* Carnosine also has the ability to chelate minerals, forming a strong zinc-carnosine complex that is stable in the acidic environment of the stomach, which is able to adhere to the stomach lining

better than either zinc or carnosine alone.\*

A zinc-carnosine complex, known as PepZin GI™, has been used in many randomized clinical trials at daily doses ranging from 75 mg to 150 mg, where it was confirmed to help maintain the integrity of the stomach lining and support gastric health and comfort.\*

Most people know melatonin for its ability to support healthy sleeping patterns; however, that is far from its only function.\* Melatonin is also a potent free radical scavenger and is present at high levels in the gastro-intestinal system, where it exerts its protective effects against the normal oxidative stress present in the GI lining.\* Melatonin helps to support healthy gastric pH levels, to support normal pepsin production in the stomach, and to regulate intestinal motility.\*

Finally, peppermint oil and its main component menthol have a long history of traditional use for GI support.\* It is now well established that peppermint oil is able to relax the smooth muscle tissue located within the GI wall, therefore contributing to the relief of temporary normal digestive cramps.\* This property was found in clinical settings, notably during GI procedures such as endoscopies and barium enemas (peppermint oil in these situations was not used as a supplement but applied directly).<sup>1-4</sup> To fully benefit from the spasmolytic properties of peppermint oil in the intestine, it is typically encapsulated in enteric-coated softgels that allow for the release of the oil directly in the small intestine, without release in the stomach where its spasmolytic effect is typically unwanted.\*

For individuals eager to maintain a healthy gastrointestinal lining, PepZin GI™ and melatonin represent great dietary ingredients that work in tandem through different mechanisms to support gastric health and comfort.\* For individuals seeking to achieve intestinal comfort, peppermint oil in enteric-coated softgels is a great supplement to relieve temporary intestinal upset.\*

Protocol For Life Balance® offers two unique complementary formulations with PepZin GI™ and melatonin as core ingredients. GI Guard™ AM, with 37.5 mg PepZin GI™ per tablet, supports daytime gastric health and comfort.\* It also features calcium carbonate, mastic gum, and slippery elm for an added soothing effect.\* GI Guard™ PM, with 37.5 mg PepZin GI™ and 3 mg melatonin per capsule, supports nighttime gastric health and comfort.\* This nighttime formula is completed with added amino acids and B vitamins to support cellular repair.\* GI Guard™ AM and PM work together through different mechanisms allowing for 24 hours of coverage for gastric health and comfort.\*

Furthermore, Protocol For Life Balance® presents Peppermint Oil G.I.™ enteric-coated softgels with 0.4 mL peppermint oil per two-softgel serving. This formula is completed with ginger and fennel oils for added support. Taken 30 minutes before meals, Peppermint Oil G.I.™ will contribute to a healthy and smooth digestion.\*

Whether you are looking for upper-GI comfort or smooth digestion, supplements are here to support your digestive tract daily, when you need it.\*

**\*These statements have not been evaluated by the Food Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.**

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2. Hiki N, Kaminishi M, Yasuda K, et al. *Digestive Endoscopy*. 2012;24(2):79-86.
3. Hiki N, Kurosaka H, Tatsutomi Y, et al. *Gastrointestinal endoscopy*. 2003;57(4):475-482.
4. Imagawa A, Hata H, Nakatsu M, et al. *Digestive Diseases and Sciences*. 2012;57(9):2379-2384.