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# CARNOZIN

Gastro protectant and healing action.

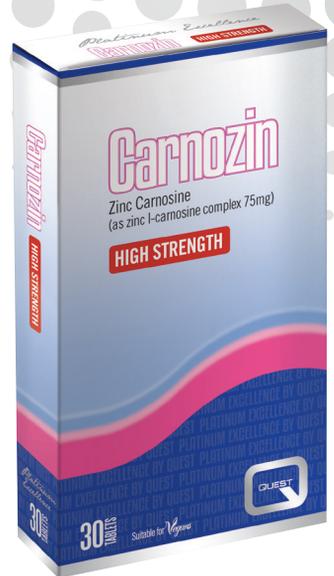
## Nutritional Information

One tablet provides:

		*%NRV
Zinc L-Carnosine Complex	75 mg	
Carnosine 58 mg		
Zinc 17 mg		170

\*NRV = Nutrient Reference Values

One to two tablets daily with or after food.



## SUMMARY

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- Natural and powerful gastro-protectant, with repair and healing properties for gastric damage.
- Recommended in combination with NSAIDs as a gastro protectant and with PPIs as an additional complementary therapy.
- Natural and effective treatment of H.pylori infection, gastritis, and gastric ulcers, in combination with conventional therapy and drugs.

## WHAT IS CARNOZIN?

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**Gastric protectant:** Provides a unique chelated complex of zinc carnosine (zinc and L-carnosine) used for effective gastro protection. Zinc carnosine has anti-inflammatory and antioxidant properties and promotes epithelial wound repair and secretion of gastric mucus. It may help reduce gastric discomfort and inflammation, repairing and protecting the mucosal stomach lining. It has been used to promote the healing of peptic ulcers and in fighting H-pylori bacterial infection. It can be used as an adjunct to non steroidal anti-inflammatory drugs (NSAIDs) to reduce the risk of damage to the gastrointestinal lining.

## HOW DOES CARNOZIN WORK IN THE BODY?

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Zinc carnosine has several modes of action to provide its gastric protective and healing properties. The beneficial effect of zinc carnosine is “non-systemic”, which means that it exerts a direct beneficial effect on the stomach lining and is not reliant on actual absorption or systemic circulation in the blood stream. Due to its unique chelated form, zinc carnosine dissociates (breaks-down) in the stomach at a slow rate and therefore exerts a longer beneficial influence in the stomach.<sup>1</sup>

- Zinc carnosine acts a gastric cyto-protective agent by increasing gastric mucous secretion, thereby enhancing the protection of the mucosal stomach lining.
- Zinc carnosine helps in the repair of gastric damage, by promoting gastric epithelial wound repair and increasing the production of insulin like growth factor 1 (IGF-1).
- Zinc carnosine has anti-inflammatory properties, through its action in inhibiting the production of pro-inflammatory interleukin-8 from gastric epithelial cells.<sup>2</sup>
- Zinc carnosine has antioxidant properties that provides protection from gastric inflammation induced by oxidative agents, such as alcohol or certain medications.<sup>3</sup>
- Zinc carnosine increases gastric micro-circulation and reduces the secretion of gastric acid.

## WHAT CAN CARNOZIN BE USED FOR?

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**Gastro-Protectant for Non-Steroidal Anti-Inflammatory Drugs (NSAIDs):** NSAIDs are widely used for the treatment of acute pain (short-term and long-term), fevers and inflammation. Common conditions in which NSAIDs are used include headaches, backaches and arthritis. NSAIDs block the production of prostaglandins, thereby relieving pain and inflammation, but also leave the stomach lining highly susceptible to ulceration and invasion by H. pylori.<sup>4,5,6</sup>

**Co-prescription:** Clinical practice guidelines recommend co-prescription of medicinal gastro-protective agents, such as proton pump inhibitors (PPIs) or H2 blockers, with NSAIDs.<sup>7</sup> However, this co-prescription strategy is only considered for high-risk patients and is frequently not followed. Such medications are also associated with other side effects. Zinc carnosine is a natural non-medicinal gastro-protectant that can be taken together with NSAIDs to reduce the risk of gastrointestinal complications such as gastric ulcers. All low risk population groups can use zinc carnosine on a long-term or short-term basis, without any complications or side effects.

**Reducing stomach injury:** Supporting clinical evidence includes a trial looking at the effects of zinc carnosine when taken together with a NSAID called indomethacin. The trial showed that a combination of indomethacin with zinc carnosine reduced stomach injury by 75%, and also prevented an increase in permeability and vulnerability of the gut. The trial also observed that zinc carnosine increased the migration and proliferation of cells needed for healing the gastrointestinal lining by 300%.<sup>8</sup>

## **Gastroesophageal Reflux (GERDS), Acid Reflux and Heartburn**

Carnosin is an alternative or supplementary solution to PPI (Proton Pump Inhibitor) “anti-acid” medication typically prescribed for GERDS.

## **Gastritis (Stomach Inflammation) and H.Pylori Infection**

**Lifestyle and gastric ulcers:** Gastritis is the inflammation of the stomach lining caused by a number of factors, including medication, alcohol consumption, smoking and H.pylori infection. Gastritis has a number of symptoms, including indigestion, stomach upset or pain, nausea, loss of appetite and may also be accompanied by gastric ulcers (see next section).

**H.pylori induced gastric inflammation:** Zinc carnosine is beneficial in preventing H.pylori induced gastric inflammation.<sup>9</sup> A clinical trial of 173 gastritis patients for 3 weeks showed that a daily dose of 75 mg and 150 mg of zinc carnosine lead to an overall improvement of symptoms of gastritis, assessed by reported symptoms and endoscopic examination. Results showed that patients with gastritis had an overall 61.4% improvement in the 75 mg group and an 83.7% improvement in the 150 mg group.<sup>10</sup>

## **Gastric Ulcers and H.Pylori Infection**

**Pathophysiology:** Stomach ulcers and ulcers in the duodenum can lead to severe abdomen and stomach pain, nausea, and may also cause bleeding. The primary cause of ulcers is through stomach infection from the bacterium H.pylori. This causes gastritis (stomach inflammation), a disruption of the mucosal defences in the stomach, and can lead to the erosion or ulceration of the mucosal lining in the stomach or duodenum by gastric acid. 80-90% of gastric ulcers are caused by H.pylori infection.<sup>11</sup> About 10-15% of individuals infected with H.pylori will eventually develop gastric ulcers. Gastric ulcers can also be caused by the use of NSAIDs, stress and excessive alcohol consumption.

**Allopathic medicine and Zinc carnosine:** Conventional treatment for gastric ulcers and H. pylori infection has focused on antibiotics to eradicate the bacteria combined with medication to suppress gastric acid production in the stomach (such as proton pump inhibitors, H2 blockers and antacids). H.pylori is frequently difficult to eradicate, even with long-term use of these medications and it often develops resistance to antibiotics. Zinc carnosine provides an additional solution for gastric ulcers and H.pylori infection treatment. One study concluded that the addition of 150 mg zinc carnosine daily to a 7 day triple-therapy regime of lansoprazole (proton pump inhibitor), amoxicillin and clarithromycin, “significantly” improved on this conventional eradication and treatment regime.<sup>12</sup>

**Improving healing time:** The protective and healing properties of zinc carnosine make it highly useful in the prevention of gastric ulcers and also to speed up the healing of gastric ulcerations. One study using endoscopic evaluation observed a 66.7% “fully healed” rate and a 83.3% “nearly healed” rate after 8 weeks of supplementation with 75 mg of zinc carnosine daily.<sup>13</sup> In another study using endoscopic evaluation and self-reported symptoms, patients with gastric ulcers were given 75 mg of zinc carnosine twice daily and demonstrated a 75.7% improvement in symptoms at 4 weeks and 89.3% improvement at 8 weeks.<sup>14</sup>

## **HOW SHOULD QUEST’S CARNOZIN BE TAKEN?**

One to two tablets daily with food.

## ARE THERE ANY PRECAUTIONS THAT SHOULD BE TAKEN BEFORE USING CARNOZIN?

Zinc Carnosine can safely enhance the effect of proton pump inhibitors (PPIs), H2 blockers, antacids and antibiotics being used for the treatment of gastritis, H.pylori infection and/or gastric ulcers.

A healthcare professional should be consulted before taking Carnozin whilst taking any other medication. Carnozin is not recommended for use during pregnancy or when breast-feeding.

## FEATURES

- A unique chelated complex of zinc carnosine (zinc and L-carnosine) • Provides 75 mg of zinc carnosine per tablet

## HEALTH NEEDS



GUT AND DIGESTION



SPECIALIST HEALTH

## SCIENTIFIC REFERENCES

1. Biochemistry (Moscow), Vol. 65, No. 7, 2000, pp. 817-823.  
Translated from Biokhimiya, Vol. 65, No. 7, 2000, pp. 961-968.
2. Cytokine. 2008;42:2:265-216
3. Aliment Pharmacol Ther.1999 Feb;13(2):261-9.
4. Health Technol Assess. 2006 Oct;10(38):iii-iv, xi-xiii, 1-183.
5. Drug Saf. 1999 Jun;20(6):527-43
6. Curr Opin Investig Drugs. 2008 Nov;9(11):1151-6
7. Rheumatology (Oxford). 2008 Apr;47(4):458-63.
8. Gut. 2007;56:168-175
9. Can J Gastroenterol. 2002 Nov;16(11):785-9.
10. Jpn Pharmacol Ther. 1997;25(5):1403-42
11. CDC: Division of Bacterial and Mycotic Diseases. Helicobacter pylori infections (H.pylori). Retrieved July 7, 2003, from <http://www.cdc.gov/ulcer>
12. Aliment Pharmacol Ther. 1999 Apr;13(4):483-7
13. Jpn Pharmacol Ther 1992;20:245-54
14. Jpn Pharm Ther 1992;20(1):1-18