

## Your Monthly Update

### Dear Colleague

Welcome to the August 07 newsletter from Pure Bio Ltd.

### Did you know...?

A new study published in the American Journal of Clinical Nutrition has shown that 87% of people in the UK are significantly deficient in vitamin D3 as a result of following sun-safety guidelines; and diet can only provide up to 10% of our RDA. Increasingly, supplementation of vitamin D3 (up to 2000i.u. daily) is being advised to maintain adequate levels.

Our topic for this month is:

### Peptic Ulcer

Ranking	Nutritional Supplements	Botanical Medicine
<b>Primary</b>		Deglycyrrhizinated licorice (DGL) Mastic
<b>Secondary</b>	Vitamin A Zinc	Banana powder Neem
<b>Other</b>	Carnosine DMSO Fibre (for duodenal ulcer) Flavonoids (quercetin, catechin, apigenin) Glutamine Vitamin C	Calendula Chamomile Comfrey Garlic Marshmallow Plantain

**Primary** – Reliable and relatively consistent scientific data showing a substantial health benefit.

**Secondary** – Contradictory, insufficient, or preliminary studies suggesting a health benefit or minimal health benefit.

**Other** – An herb is primarily supported by traditional use, or the herb or supplement has little scientific support and/or minimal health benefit.

## The Facts:

Peptic ulcers are open sores or erosions in the lining of either the duodenum (duodenal ulcers) or the stomach (gastric ulcers). The duodenum is the first part of the small intestine. About 10% of all Americans get ulcers, and they can recur. Contrary to popular belief, ulcers are not caused by spicy food or stress but, rather, are most commonly due to either an infection or long term use of certain medications.

## Signs & Symptoms

- Abdominal pain with a burning or gnawing sensation
- Pain 2 to 3 hours after eating
- Pain is often aggravated by an empty stomach; for example, night-time pain is common
- Pain may be relieved by antacids or milk
- Heartburn
- Indigestion (dyspepsia)
- Belching
- Nausea
- Vomiting
- Poor appetite
- Weight loss

## Causes

**Helicobacter pylori** (*H. pylori*), a bacterial organism, is responsible for most ulcers. This organism weakens the protective coating of the stomach and duodenum and allows the damaging digestive secretions to irritate the membranous lining. Interestingly, as many as 20% of British people over age 40 have this organism living in their digestive tract, but not all of these people develop ulcers – in fact, most do not.

**Non-steroidal anti-inflammatory drugs (NSAIDs)** – ongoing use of this class of medications is the second most common cause of ulcers. These drugs (which include aspirin, ibuprofen, naproxen, diclofenac, tolmetin, piroxicam, fenoprofen, indomethacin, oxaprozin, ketoprofen, sulindac, nabumetone, etodolac, and salsalate) are acidic and they block the production of prostaglandins.

**Zollinger-Ellison syndrome** – leading to tumours in the pancreas and duodenum that produce gastrin, a hormone that stimulates gastric acid production. Diarrhoea may precede ulcer formation.

Other causes of ulcers are conditions that can result in direct damage to the wall of the stomach or duodenum such as heavy use of alcohol, radiation therapy, burns, and physical injury.

## Risk factors

- Genetic factors
- Increasing age
- Chronic pain, from any cause such as arthritis, fibromyalgia, repetitive stress injuries (e.g. carpal tunnel syndrome), or persistent back pain, leading to ongoing use of aspirin or NSAIDs
- Alcohol abuse
- Diabetes may increases the risk of *H. pylori*
- Living in crowded, unsanitary conditions increases the risk of *H. pylori* infection
- Immune abnormalities may, in theory, make it more likely for *H. pylori* or other factors to cause damage to the lining of the stomach or duodenum.
- Lifestyle factors, including chronic stress, coffee drinking and smoking all increase susceptibility to damage from NSAIDs or *H. pylori*.

## Dietary Modification

People with ulcers have been reported to eat more sugar than people without ulcers, though this link may only occur in those with a genetic susceptibility toward ulcer formation. Sugar has also been reported to increase stomach acidity, which could aggravate ulcer symptoms.

Salt is a stomach and intestinal irritant. Higher intakes of salt have been linked to higher risk of stomach (though not duodenal) ulcer. As a result of these reports, some doctors suggest that people with ulcers should restrict the use of both sugar and salt, although the benefit of such dietary changes remains unknown.

Many years ago, researchers reported that cabbage juice accelerated healing of peptic ulcers. Drinking a litre of cabbage juice per day was necessary for symptom relief in some reports. Although only preliminary modern research supports this approach, many practitioners claim considerable success using one litre per day for 10 to 14 days, with ulcer symptoms frequently decreasing in only a few days. Carrot juice may be added to improve the flavour.

Fibre slows the movement of food and acidic fluid from the stomach to the intestines, which should help those with duodenal, though not stomach, ulcers. When people with recently healed duodenal ulcers were put on a long-term (six-month) high-fibre diet, the rate of ulcer recurrence was dramatically reduced.

The relationship between food allergies and peptic ulcers has been reported at least as far back as the 1930s. Exposing the lining of the stomach to foods to which a person is intolerant has been reported to cause bleeding in the stomach. Although additional research is needed, avoiding food allergens may be helpful for people with peptic ulcers.

Foods containing flavonoids, like apples, celery, cranberries (including cranberry juice), onions, and tea may inhibit the growth of *H. pylori*.

## Lifestyle Modification

Aspirin and related drugs (non-steroidal anti-inflammatory drugs), alcohol, coffee (including decaffeinated) and tea can aggravate or interfere with the healing of peptic ulcers. Smoking is also known to slow ulcer healing. Whether or not an ulcer is caused by infection, people with peptic ulcer should avoid use of these substances.

## Nutritional Supplement Treatment Options

Vitamin A is needed to heal the linings (called mucous membranes) of the stomach and intestines. In one controlled trial, vitamin A supplementation facilitated healing in a small group of people with stomach ulcer – **Vitamin A, PE**

Zinc is also needed for the repair of damaged tissue and has protected against stomach ulceration in animal studies. Recommended dosage is 30 to 50 mg of zinc per day.

- **Liquid Zinc - Pure Bio**
- **Zinc 30/15 (picolinate) PE**
- **Zinc Citrate PE**
- **Zinc Orotate - Kloesterl**

Carnosine - Experimental animal studies have shown that a zinc salt of carnosine exerts significant protection against ulcer formation and promotes the healing of existing ulcers. Clinical studies in humans demonstrated that this compound can help eradicate *H. pylori*, which has been linked to peptic ulcer and stomach cancer. The

amount of the zinc carnosine complex used in research studies for eradication of *H. pylori* is 150 mg BID.

Glutamine, an amino acid, is the principal source of energy for cells that line the small intestine and stomach. More than 40 years ago, glutamine was reported to help people with peptic ulcer in a preliminary trial. Glutamine has also prevented stress ulcers triggered by severe burns in another preliminary study. Recommended dosage is 500 to 1,000 mg of glutamine BID-TID – [I-Glutamine PE](#)

DMSO - Oral supplementation with dimethyl sulfoxide (DMSO) reduced relapse rates for peptic ulcer significantly better than did placebo or the ulcer drug cimetidine (Tagamet®) in one study. Previous research showed that DMSO in combination with cimetidine was more effective than cimetidine alone. These trials used 500 mg of DMSO QID. Oral supplementation with DMSO should not be attempted without the supervision of a practitioner.

Gamma-linolenic acid (GLA) - Very preliminary evidence from test tube and animal studies suggest that gamma-linolenic acid (GLA) from evening primrose oil (EPO) or borage oil may have anti-ulcer properties.

- [EPO PE](#)
- [Borage Oil PE](#)
- [Blackcurrant Seed Oil PE](#)

Omega-3 Fatty Acids - In animal studies, treatment with omega-3 fatty acids reduced the risk of ulcers caused by NSAIDs.

- [EPA/DHA Essentials PE](#)
- [EPA/DHA liquid PE](#)
- [DHA Enhance PE](#)
- [Neuromins PE](#)

Formula SF734 (Thorne) – for the specific treatment of bacterial imbalances in the upper gastro-intestinal tract, including *H. pylori*

Probiotics - Lactobacillus acidophilus (L. acidophilus) is the most commonly used probiotic. In test tube studies, L. acidophilus and other probiotics were able to kill or slow down the growth of *H. pylori*. One way in which probiotics may help is by reducing side effects, such as diarrhoea and taste disturbance, from medications used to treat *H. pylori*.

- [Lactobacillus Acidophilus PE](#)
- [Lactobacillus Sporogenes PE](#)
- [Saccharomyces boulardii PE](#)
- [Probiotic 5 PE](#)

Vitamin C - People with gastritis, a related condition, have been found to have low levels of vitamin C in their stomach juice. Vitamin C may also help eradicate *H. pylori* in people with gastritis.

- [Pure Ascorbic Acid capsules / powder](#)
- [Buffered Ascorbic Acid capsules / powder](#)

## Botanical Treatment Options

Licorice root has a long history of use for soothing inflamed and injured mucous membranes in the digestive tract. Licorice may protect the stomach and duodenum by increasing production of mucus, a substance that protects the lining of these organs against stomach acid and other harmful substances. According to laboratory research, flavonoids in licorice may also inhibit growth of *H. pylori*.

DGL - For people with peptic ulcer, many practitioners use the deglycrrhizinated form of licorice (DGL). In making DGL, the portion of licorice root that can increase blood pressure and cause water retention is almost completely removed, while the mucous-membrane-healing part of the root is retained. In some reports, DGL has compared favourably to the popular drug cimetidine (Tagamet®) for treatment of peptic ulcer. Additionally, after DGL and cimetidine were discontinued in one study, there were fewer recurrences in the DGL group than in the cimetidine group.

Recommended dosage of DGL is up to 600mg 15 minutes before each meal.

Mastic - The gummy extract of *Pistacia lentiscus*, also known as mastic or gum mastic, has been shown in one preliminary study and one double-blind study to heal peptic ulcers. This may be related to its ability to kill *H. pylori* in vitro .

Unripe plaintain banana - Ayurvedic doctors in India have traditionally used dried banana powder (*Musa paradisiaca*) to treat ulcers. In animal studies, banana powder protects the lining of the stomach from acid. A human trial has also found dried banana helpful in those with peptic ulcer. In that report, two capsules of dried raw banana powder QID for eight weeks led to significant improvement. Bananas and unsweetened banana chips may be good substitutes, although ideal intake remains unknown.

Neem - Administration of 30 to 60 mg of freeze-dried neem bark extract BID led to a significant reduction in stomach acid levels and near complete healing of all people with duodenal ulcers over a period of ten weeks in a preliminary clinical trial.

Chamomile has a soothing effect on inflamed and irritated mucous membranes. It is also high in the flavonoid, apigenin—another flavonoid that has been shown to inhibit growth of *H. pylori* in vitro . Recommended intake is two to three cups of strong chamomile tea each day. The tea can be made by combining 3 to 5 ml of chamomile tincture with hot water or by steeping 2 to 3 tsp of chamomile flowers in the water, covered, for 10 to 15 minutes.

Calendula is another plant with anti-inflammatory and healing activities that can be used as part of a traditional medicine approach to peptic ulcers. The same amount as chamomile can be used.

Marshmallow (*Althaea officinalis*) is high in mucilage. High-mucilage-containing herbs have a long history of use for irritated or inflamed mucous membranes in the digestive system.

Garlic has been reported to have anti-Helicobacter activity in test-tube studies; although this has not been successful reproduced in human trials.

Comfrey has a long tradition of use for people with gastrointestinal problems, including stomach ulcers, though these traditional uses have yet to be tested in scientific studies. People should only use comfrey preparations made from the leaves and avoid those made from the root.

## Other herbs:

- Astragalus ( *Astragalus membranaceus* ) – used traditionally to treat stomach ulcers.
- Barberry ( *Berberis vulgaris* )- This herb contains active substances called berberine alkaloids. These substances have been shown to combat infection and bacteria. For this reason, barberry is used to ease inflammation and infection of the gastrointestinal tract. Barberry has also been used traditionally to improve appetite.
- Bilberry ( *Vaccinium myrtillus* ) - Studies in rats have found that anthocyanidins (an antioxidant) from bilberry fruits help prevent stomach ulcers related to a variety of factors including stress, medications, and alcohol.

- Cat's Claw ( *Uncaria tomentosa* ) – The bark and root of this herb have been used among indigenous people of the rainforest for centuries to treat a variety of health problems including ulcers and other gastrointestinal disorders. The benefits of this herb may be due to its ability to reduce inflammation.
- Cranberry ( *Vaccinium spp* ) – may have properties that help prevent *H. pylori* infection.
- Turmeric ( *Curcuma longa* ) -Turmeric has long been used in both Ayurvedic and Chinese medicine to treat digestive disorders. Scientific research is beginning to test the merit of this traditional use. (Note: at very high doses, turmeric may induce ulcers! It is therefore very important to stick with the dose recommended.)

## Integrative Options

Emotional stress has been shown to increase acid production in the stomach. The reported association between stress and peptic ulcer might be attributable to a stress-induced increase in gastric acidity. During the air raids in London during World War II, British physicians observed an increase of more than 50% in the incidence of ruptured peptic ulcers. More recently, an increased incidence of bleeding stomach ulcers was seen in survivors of the Hanshin-Awaji earthquake in Japan.

Stress levels can be reduced with regular use of relaxation techniques such as yoga, tai chi, qi gong, or meditation. These practices may also help lessen pain and reduce the need for the damaging NSAIDs.

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