



## Your Monthly Update

*Dear Colleague*

Welcome to the October 2010 newsletter from Pure Bio Ltd.

### *Did you know:*

A study at the Rowett Research Institute in Aberdeen found that a low-carbohydrate diet reduced levels of the fatty acid butyrate in the gut, which offers protection against colorectal cancer (FEMS Microbiol, 2002; 217: 133-9)

The chosen topic for this month is:

## Indigestion

### Protocol Summary

Ranking	Nutritional Supplements	Botanical Medicine
Primary		<a href="#">Artichoke</a>
Secondary	<a href="#">Charcoal</a> <a href="#">Digestive enzymes</a> <a href="#">Vitamin B12</a> <a href="#">Betaine HCl</a>	<a href="#">Bitter orange</a> <a href="#">Caraway</a> <a href="#">Fennel</a> <a href="#">Ginger</a> <a href="#">Linden</a> <a href="#">Peppermint</a> <a href="#">Sage</a>
Other	<a href="#">Fructo-oligosaccharides</a>	<a href="#">Barberry</a> <a href="#">Bitter melon</a>
<p><b>Primary</b> – Reliable and relatively consistent scientific data showing a substantial health benefit.</p>		

**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.

## Symptoms

Indigestion occurs when there is difficulty digesting and assimilating foods after a meal. There are many symptoms, including heartburn or burning anywhere in the stomach, a feeling of heaviness long after the meal, belching, gas, flatulence, bloating, nausea and a poor appetite.

## Causes

Most digestive problems are directly caused by the type of food eaten and/or the way in which it is eaten. Refined, processed food places enormous stress on the organs of digestion. Excessive fats, especially saturated fats from fried and fast foods slow digestion. High consumption of coffee, alcohol, cigarettes and spicy foods will precipitate an overly-acidic stomach. Indigestion can also be due to improper eating habits such as eating quickly or when stressed, not chewing well, and drinking excessive quantities of liquid with meals. Other causes are imbalances in bile, stomach acids and enzymes; food allergies and sensitivities; and, for some, improper combinations of different types of food.

## Lifestyle Modification

Eating more slowly and properly chewing the food consumed will help to relieve symptoms of indigestion or heartburn. Meals should be eaten when relaxed and without simultaneously swallowing air. The first stage of digestion is with the digestive enzymes in saliva. If food is swallowed before these enzymes have been properly activated, the stomach and pancreas will immediately be put under pressure.

Avoiding or reducing the intake of caffeine and alcohol. In addition, some people with symptoms of indigestion appear to have food allergies or intolerances or they are sensitive to certain food combinations, such as protein with carbohydrates or fruits with vegetables.

A more healthy diet based on fresh foods, complex carbohydrates and avoidance of processed meals and snacks will invariably reduce the symptoms of indigestion. Food combining can also be very helpful, particularly in the elderly.

## Dietary Modification

Over-acidity of the stomach is often the result of too much coffee or alcohol. If under-acidity is a key problem, lemon juice or apple cider vinegar can be taken with meals to reduce symptoms. Fresh papayas, pineapples and kiwis or fresh juice from these fruits before a meal also aid digestion, as they contain digestive enzymes which help the stomach break down proteins. The digestion of fats is supported by essential fatty acids found in unrefined, cold-pressed nut and seed oils like flax seed,

walnut and pumpkin seed oil. Apples contain malic and tartaric acid which remedy indigestion and inhibit the growth of fermenting agents in the digestive tract.

## Tips for Better Digestion

- Eat only when you are calm and focused on eating.
- Leave as much time as possible after eating for unhurried digestion.
- Avoid eating during peak liver detoxification activity, which is between one o'clock and three o'clock in the morning.
- Smaller, more frequent meals promote better carbohydrate metabolism, triggering less insulin production.
- Eat frequently to stabilize blood-sugar levels for sustained energy.
- Eat dinner early in the evening, preferably before six o'clock.
- Always under-eat slightly. Less food allows for greater clarity, more energy and less sleep.
- Drink plenty of water or herbal tea between meals to promote regularity and the elimination of toxins.
- Limit the amount of liquid taken with meals. Too much liquid can dilute digestive juices.

## Other therapies

- Relaxing breathing exercises half an hour before eating will aid digestion.
- After a meal, take a walk.
- While resting, apply a warm compress to the stomach, such as a castor oil pack

## Nutritional Supplement Treatment Options

Although digestion is a highly complicated process dependent upon many factors hydrochloric acid, enzymes and bile are crucial. If any of these are lacking, digestion will be incomplete and result in bloating, nausea and digestive upset. If there is a dysbiosis – a disruption in the normal gut bacterial flora – for example, following antibiotics, digestion may also be poor. Re-establishing the intestinal flora with [probiotics](#) will aid digestion. [Betaine hydrochloride \(HCl\)](#) replaces stomach acid when it is deficient. If a feeling of slight burning occurs, the dosage must be reduced.

Digestive enzymes ([A.I. Enzymes](#), or the vegetarian alternative [Digestive Enzymes Ultra](#)) are necessary for complete digestion. If digesting milk and milk products is a problem, lactase is useful. Lecithin is excellent when fats and oils are not well tolerated. To bind the fermenting acids in the intestines, drink medicinal clay in lukewarm water.

[Activated charcoal](#) has the ability to chelate with many substances, including gases produced in the intestine. In a small, controlled trial, people were given a meal of gas-producing foods along with capsules containing 584 mg of activated charcoal, followed by another 584 mg of activated charcoal two hours later. Using activated charcoal prevented the five-fold increase in flatulence that occurred in the placebo group. Another, small controlled study found that taking 388 mg of activated

charcoal two hours after a gas-producing meal normalized flatulence by the fourth hour.

[Digestive Enzymes](#) - Lipase, a pancreatic enzyme, aids in the digestion of fats and may improve digestion in some people. In a double-blind trial, pancreatic enzymes was shown to significantly reduce gas, bloating and fullness after a high-fat meal. Participants in this study took one capsule immediately before the meal and two capsules immediately after the meal. The three capsules together provided 30,000 USP units of lipase, 112,500 USP units of protease, and 99,600 USP units of amylase. However, the amount of pancreatic enzymes needed may vary from person to person, and should be determined with the help of a qualified practitioner.

[Vitamin B12](#) - *1,000 mcg daily*. Vitamin B12 supplementation may be beneficial for a subset of people suffering from indigestion: those with delayed emptying of the stomach contents in association with *Helicobacter pylori* infection and low blood levels of vitamin B12. In a double-blind study of people who satisfied those criteria, treatment with vitamin B12 significantly reduced symptoms of dyspepsia and improved stomach-emptying times.

[Betaine Hydrochloride](#) - According to various sources, another cause of heartburn can be too *little* stomach acid. This may seem to be a paradox to many, but based on the clinical experience of a growing number of practitioners, supplementing with betaine HCl often relieves the symptoms of heartburn and improves digestion, at least in people who have hypochlorhydria (low stomach acid). The amount of betaine HCl used varies with the size of the meal and with the amount of protein ingested. Typical amounts recommended by doctors range from 600 to 2,400 mg per meal. Use of betaine HCl should be monitored by a qualified practitioner.

[Fructo-oligosaccharides \(FOS\)](#) - *5 grams per day*. In a double-blind trial, supplementation with 5 grams of fructo-oligosaccharides per day for six weeks was significantly more effective than a placebo at relieving symptoms of dyspepsia such as abdominal discomfort, fullness, constipation, urgency, and diarrhoea. The average symptom severity decreased by 44% in the group receiving fructo-oligosaccharides.

## Botanical Treatment Options

*Avoid antacids as they inhibit digestion causing cycles of indigestion, gas, bloating and constipation. Neutralization or suppression of gastric acid has no therapeutic benefit. Stomach bitters and herbal remedies that support the liver and gall-bladder are a much better alternative and most effective when taken fifteen to thirty minutes before meals.*

*The following list is by no means exhaustive:*

**Bitter herbs** are thought to stimulate digestive function by increasing saliva production and promoting both stomach acid and digestive enzyme production. As a result, they are particularly used when there is low stomach acid but not in heartburn (where too much stomach acid could initially exacerbate the situation). These herbs literally taste bitter. Some examples of bitter herbs include greater celandine, wormwood, gentian, dandelion, blessed thistle, yarrow, devil's claw, bitter orange, bitter melon, juniper, andrographis, prickly ash, and centaury. Bitters

are generally taken either by mixing 1–3 ml tincture into water and sipping slowly 10–30 minutes before eating, or by making tea, which is also sipped slowly before eating.

[Artichoke](#) - 500 to 1,000 mg cynarin in a standardized herbal extract TID. Artichoke, in addition to being an edible plant, is a mild bitter. Extracts of artichoke have been repeatedly shown in double-blind research to be beneficial for people with indigestion. Artichoke is particularly useful when the problem is lack of bile production by the liver.

[Bitter Orange](#) - 3 cups of tea daily, prepared with 1 to 2 grams of dried peel. The German Commission E has approved the use of bitter orange for loss of appetite and dyspeptic ailments. One test tube study showed bitter orange to potently inhibit rotavirus (a cause of diarrhoea in infants and young children). Bitter orange, in an herbal combination formula, reportedly normalised stool function and completely eased intestinal pain in 24 people with non-specific colitis and, again in an herbal combination formula, normalized stool function in another 32 people with constipation.

Among the most notable and well-studied **carminatives** (also called aromatic digestive tonics or aromatic bitters) are peppermint, fennel, and caraway. Double-blind trials have shown that a combination of a combination of these herbs, along with wormwood, have been found to reduce gas and cramping in the intestinal tract in people with indigestion. Generally, 3–5 drops of natural essential oils or 3–5 ml of tincture of any of these herbs, taken in water BID–TID as required, can be helpful. Alternately, a tea can be made by grinding 2–3 teaspoons of the seeds of fennel or caraway or the leaves of peppermint, and then simmering them in a cup of water (covered) for ten minutes. Drink three or more cups per day.

[Caraway](#) - 50 mg of oil plus 90 mg of peppermint oil in enteric-coated capsules taken TID for indigestion only. It is believed that carminative agents work, at least in part, by relieving spasms in the intestinal tract.<sup>11</sup>

[Fennel](#) - 1/2 tsp (2 to 3 grams) of ground or crushed seeds TID, taken directly or as tea; or tincture equivalent according to practitioner recommendation.

[Ginger](#) - 2 to 4 grams daily fresh ginger or equivalent for indigestion.

There are numerous other carminative herbs, including European angelica root (***Angelica archangelica***), anise, Basil, cardamom, cinnamon, cloves, coriander, dill, oregano, rosemary, sage, lavender, and thyme. Many of these are common kitchen herbs and thus are readily available for making tea to calm an upset stomach. Rosemary is sometimes used to treat indigestion in the elderly by European herbal practitioners. The German Commission E monograph suggests a daily intake of 4–6 grams of sage leaf.

**Demulcents herbs** may be used to treat indigestion and heartburn. These herbs seem to work by decreasing inflammation and forming a physical barrier against stomach acid or other abdominal irritants. Examples of demulcent herbs include [ginger](#), [licorice](#), and [slippery elm](#).

[Ginger](#) is a spice well known for its traditional use as a treatment for a variety of gastrointestinal complaints, ranging from flatulence to ulcers. Ginger has anti-inflammatory and anti-nausea properties. Ginger has been shown to enhance normal, spontaneous movements of the intestines that aid digestion.

[Linden](#) - Several cups of tea per day, made with 2 to 3 tsp of dried flowers per cup of hot water, for indigestion. Linden has a long tradition of use for indigestion. Older clinical trials have shown that linden flower tea can help people who suffer from upset stomach or from excessive gas that causes the stomach to push up and put pressure on the heart (also known as the gastrocardiac syndrome.) The reputed antispasmodic action of linden, particularly in the intestines, has been confirmed in human trials. Linden tea is prepared by steeping 2–3 tsp of flowers in a cup of hot water for 15 minutes. Several cups per day are recommended.

[Peppermint](#) - *90 mg of oil plus 50 mg of caraway oil in enteric-coated capsules taken TID, for indigestion only.* Peppermint stimulates the bile flow and works against nausea and a nervous stomach.

[Sage](#) - *4 to 6 grams daily of dried leaf or tincture equivalent, for indigestion.*

[Turmeric](#) - *500 mg QID, for indigestion.* In a double-blind trial, turmeric was found to relieve indigestion. Two capsules containing 250 mg turmeric powder per capsule were given QID.

Some bitters widely used in traditional medicine in North America include [yarrow](#), [yellow dock](#), [goldenseal](#), [Oregon grape](#), and [vervain](#). Oregon grape's European cousin [barberry](#) has also traditionally been used as a bitter. Animal studies indicate that yarrow, barberry, and Oregon grape, in addition to stimulating digestion like other bitters, may relieve spasms in the intestinal tract.

[Gentian root](#) and the leaves and root of [dandelion](#) make an excellent combination to aid digestion. Make a herbal tea by pouring 1 cup of boiling water over 1 tsp. of herbs and let steep for ten to fifteen minutes. Drink 1 cup three times daily.

Alternatively chew 2 or 3 fresh sprigs of dandelion leaves. They are quite bitter, but produce immediate results, as the bitter taste stimulates bile flow.

Other useful herbs to use for teas for indigestion are [garlic](#), [wormwood](#), calamus, papaya, aloe vera, hops, [valerian](#), rosemary, [thyme](#), tormentil, marsh mallow root, [licorice](#), [ginger](#) and cayenne.

## Homeopathy

Homeopathic self-help remedies are excellent for relief of occasional indigestion, but are not intended to substitute a proper diet. Choose one of the below in a 6c strength, repeating every fifteen minutes for three or four doses until symptoms subside. If necessary, continue three times daily for up to one week. One dose is 2 tablets dissolved under the tongue.

- [Lycopodium](#) is commonly used for bloating and gas after eating, and where discomfort is relieved by loosening the belt. Onions, garlic and oysters are significant culprits.
- For bloating and gas after eating the simplest foods, use [Carbo vegetabilis](#). Choose it when belching provides relief and there is a need for more air.
- [Pulsatilla](#) is appropriate if the indigestion is related specifically to fats and rich foods. The tongue is often coated yellow and there is little or no thirst. A warm room causes distress.
- [Nux vomica](#) is used for indigestion from excess, typically, eating too much too hurriedly, or overindulging in stimulants like coffee and alcohol. In severe cases heartburn and empty retching can develop.
- [Arsenicum](#) is used in cases that are particularly bad at night, with intense burning pains that cause restlessness. The stomach requires warmth and there can be a great deal of vomiting.

## Tissue Salts

Take 4 tablets under the tongue every ten to fifteen minutes for immediate relief. For a chronic problem, take 4 tablets four times daily.

- For heartburn and acidity, usually accompanied by sour belching, use [Nat phos](#).
- [Kali mur](#) is helpful when fats or rich foods have been eaten or if the tongue has a whitish coating.
- [Nat sulph](#) aids in cases of bitter belching.
- If cramping is the problem, especially if associated with gas and belching, [Mag phos](#) provides relief.
- [Calc phos](#) is useful for sluggish digestion and poor assimilation.

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