Stomach Troubles

General Advice for Indigestion and Heartburn

When you have stomach symptoms, think of it as a message from your stomach saying "you're hurting me, I don't like what you're putting into me". So the diet needs to change.

For most people their stomach symptoms will **go away in 2 weeks by stopping soda drinks, sugar, processed foods, white bread, white flour, chips, fried foods, cereals alcohol, cigarettes and coffee** (but not tea).

One of the best ever studies on dyspepsia (indigestion) was by Professor Yudkin's team in 1971. They put people on one of two different diets for 3 months and then reversed the diets. They were given either were a **low carbohydrate diet** or the conventional diet for dyspepsia of the time (avoiding spices, pickles, alcohol, fried foods). The results were clear-cut. In the group on the low carbohydrate diet 68% improved and 5% were worse. The improvement was often immediate. Yudkin suspected sugar was the main culprit. They later put gastric tubes in volunteers on a high sugar diet and found marked abnormalities of digestive function. They found the best diet was one which virtually eliminated sugar and restricted other carbohydrates.

Increase vegetables and low sugar fruits. Ideally these should make up 50% of the diet. Take care with meat which doubled the incidence of reflux in one study. Also stop aspirin and anti-inflammatory drugs if you're taking them. **Avoid any drinks with your meals**; take your drink later as drinking dilutes the gastric juices (see below). Snacking between meals makes the situation worse as it doesn't give the stomach a rest. Avoid lying down for 2 hours after a meal if possible.

Unsurprisingly, over-eating makes the situation worse (Japanese saying: eight parts of a full stomach sustain the man the other two parts sustain the doctor).

Other Lifestyle Factors

Raising the head of the bed (if heartburn occurs at night), chewing food thoroughly, eating your main meal at midday and losing weight often help reduce symptoms

Specific Foods

Although processed foods are often the most harmful, there are other foods to be careful of. Citrus fruits such as lemons, limes and oranges can be a problem as can tomatoes, raw onion and raw garlic. Wine and fizzy drinks are highly irritant. Caffeine, vinegar, processed oils (eg sunflower, safflower), chocolate and most alcoholic drinks are also irritant. High fructose corn syrup (found in most processed food) is bad news. Foods which are more healing

include most fruit and vegetable, nuts, seeds, wholegrains, fish, poultry and most cheeses.

Food Combinations

For some people the way you combine foods can contribute to problems. **FRUIT** is a bad mixer, especially apples and bananas. So eat fruit away from meals. **STARCH** is also a bad mixer. It doesn't mix well with meat (eg meat pies), it doesn't mix well with sugar (eg. cakes) and it doesn't mix well with other starches (eg Indian meal with bread and rice). Vegetables mix well with everything.

Food Intolerances

A fairly common reason for recurrent stomach pains is food allergies. This can cause wind, bloating, and sometimes irregular bowels. It is the likely cause if you get other allergies, if you eat the same food every day or if you crave certain foods. The best way to find if you have a food allergy is to do exclusion diet (see separate food intolerance leaflet).

A number of studies have shown this can be a major cause of acid reflux. Casell found 91% of patients intolerant to at least 5 foods in a 2017 study and all patients reacted to at least one food in an earlier (2014) study. The condition eosinophilic oesophagitis, is often found in younger patient and is an under-diagnosed cause of heartburn. A study by Doerfler in 2015 found 70% of patients with this condition responded to an exclusion diet. Identifying this may save you years of trouble.

This is a good approach to use if standard treatments are not working.

The Mind and Stomach

If you eat fast or under stress you won't make enough saliva and your food won't be digested properly and won't be absorbed properly. You will put out excess cortisol which makes your digestion function worse. You also need oxygen to digest your food so your breathing makes a difference. Eating fast is regarded by the body as stressful.

You can aid your digestion simply by taking about 5 slow deep breaths before eating, always sitting down to eat, ideally in pleasant surroundings, and taking plenty of time over your food. These changes alone can sometimes make a big difference.

Too much Acid or Too Little

Most heartburn is linked to causes such as poor diet, food intolerance and obesity. A less common cause is low stomach acidity. This is especially likely if there has been no response to standard drugs. It is easy to test for.

Stomach acid goes down with age. Low stomach acid has been associated with a wide range of auto-immune and chronic diseases including arthritis, diabetes, hyperthyroidism, eczema, asthma, gallstones, macular degeneration, ulcerative colitis, rosacea and osteoporosis. Some people with stomach troubles have too little acid (and some too much). Symptoms like wind

and bloating are associated with impaired digestion and are more likely to be linked with low than high stomach acid. Symptoms like undigested food in the stools and brittle nails can also point to low acidity. Acidity goes down later in the day and a clue to low acidity is if meat sits in the stomach a long time during an evening meal as it doesn't digest properly.

Stomach acid is not only necessary for digestion, but the acid kills harmful bacteria. Hence, people with low stomach acid (and those on PPI drugs -see below) are more likely to get gut infections. Vultures and hyenas, have very high stomach acid levels, so they can survive whilst eating rotting flesh.

Normally the stomach empties into the duodenum via the pyloric valve. However this is acid-sensitive and only opens when there is enough acid. If there isn't enough acid, food isn't released and it gets pushed back into the oesophagus. Even though the stomach contents are less acid, it is still acid enough to burn the oesophagus and cause heartburn. Acid blocking drugs will work here as they block this acid but at the expense of worsening digestion throughout the rest of the intestine.

Normally acid released from the stomach leads to a whole cascade of essential changes such as the release of bicarbonate, bile acids and pancreatic enzymes in the small bowel. If you block acid it interferes with all these stages of digestion. Low stomach acid can cause deficiency of 8 amino acids, 12 minerals especially magnesium and some vitamins such as folate and Vitamin B12.

A simple test you can do to check the amount of stomach acid is to take a half of a teaspoonful of bicarbonate of soda in 250 mls (8 ounces) of water first thing in the morning before eating. Now measure the time before you start belching or burping (this is due to the stomach acid and bicarbonate reacting). 1 to 2 minutes is normal whereas 2-5 minutes means a slightly low level and over 5 minutes means a low level. Ideally repeat this test for 5 days. This works because sodium bicarbonate reacts with stomach acid to produce carbon dioxide, hence the wind.

If stomach acid is low use **Betaine HCL** 500mg during (not before or after) each meal. If there is no burning you may need two or even three. They produce acid quite rapidly and this can last for up to an hour. When you notice burning then reduce by one capsule and you have the right amount.

If betaine HCL is ineffective try cider vinegar.

Digestive Enzymes

Digestion cannot take place without digestive enzymes. However these enzymes cannot be activated without a sufficient supply of **magnesium and zinc**. Many people have low or borderline levels of these minerals. In addition commonly given acid-blocking drugs (PPIs –see below) can lead to severe magnesium deficiency.

Gut Fermentation

If wind and bloating are major symptoms then sometimes the problem lies not in the stomach but in the small intestine. Normally this should be free of microbes but if stomach acid is low or the diet is high in sugar (which feeds the microbes) or bile secretion is impaired (for instance after gall bladder removal) then bacteria can take hold in the small intestine and produce a variety of harmful chemicals including alcohols and hydrogen sulphide (which makes the wind is smelly). (See separate gut fermentation leaflet).

Testing

The most common test done for stomach problems is endoscopy. One third of people over 50 years have a hiatus hernia and this goes increases with age. This is not an important finding unless there is also oesophagitis or gastritis. I liken a hiatus hernia to a volcano. It is not a problem unless it is active. A hiatus hernia on its own is no reason to use long-term stomach drugs, although I commonly see them being used this way.

It is possible to test for helicobacter in the stools. This is a very accurate test unless the patient is taking a PPI (see later). If a PPI drug has been taken for 2 weeks the accuracy of the test drops by 72%. Stopping these drugs for 2 weeks will restore the accuracy.

The problem is that although helicobacter is known to cause peptic ulcer and contributes to gastric cancer, it is unclear if it is a cause of oesophagitis and there is some evidence that treating it makes oesophagitis more aggressive. So the usefulness of this test is unclear. This may be a test to do if standard treatments are failing.

Other Remedies

Digestive Enzymes – If you don't have enough digestive enzymes then your stomach will usually compensate by overproducing stomach acid. The most commonly used enzyme is pepsin. This is often combined with Betaine HCL. However enzymes often don't work well in an acidic environment so it makes more sense to take pepsin or any similar digestive enzymes separately. Take these 40 to 60 minutes after starting food. It can be repeated 1 to 2 hours after eating if it has been a heavy meal.

These are available from health food shops. They help absorption of food and also help absorption of vitamins and minerals.

Cider Vinegar – this helps when stomach acid is low. Try a tablespoonful of cider vinegar. If it relieves it suggests stomach acid is low. If it doesn't help, then the acid may be too high.

Cabbage and celery Juice. Dr Cheney had a novel way of treating patients hospitalised with peptic ulcer. He gave them 4 glasses of cabbage juice daily. He published his findings on 100 patients in 1953 after finding they healed in one third of the usual time. A glass of freshly made celery juice in the

morning using a juicer is another excellent way to correct stomach acidity. Use this on its own, not combined with other juices.

Lemon juice (squeeze of this in water 10 minutes before food) is also good.

Other remedies include aloe vera (liquid or capsules), ginger tea and papaya or pineapple (which contain digestive enzymes).

Freshly squeezed cabbage juice has been shown to heal an ulcer in two to five days. It doesn't taste too good so add in carrots or celery.

Deglycyrrhized licorice (DGL) has been found to be as good as standard stomach drugs and articles on its effectiveness have appeared in medical journals for over 35 years. It can be hard to obtain. It will heal indigestion and ulcers. It does not stop acid production but helps produce a protective mucus in the stomach. It is also good at killing harmful bugs in the stomach and makes the liver work better. Unlike most drugs which turn off normal functions of the body it actually helps the body.

Magnesium is a critically important mineral and needs stomach acid for its absorption. However, magnesium is also necessary to produce stomach acid so a vicious cycle can occur of progressive magnesium depletion, declining stomach acidity and worsening digestion. Both antacids and PPI drugs make this situation worse. Lack of magnesium can also cause oesophageal spasm. Aim to take 200-300mg of magnesium twice daily. Magnesium citrate is a good choice.

Other Nutrients: Zinc is also essential for stomach acid. Aim for 15mg daily. Iodine is also needed (see iodine leaflet)

Chinese Perspective

The eastern perspective is that you need digestive fire to absorb food. Cold foods or too much food puts out the fire whereas warm foods make digestion easier. The fire is highest at midday (when the sun is highest) and then declines. So eating the biggest meal at lunchtime helps. A tip to stimulate the digestive fire is to take a few slices of ginger with a sprinkle of lemon juice and a pinch of salt 20-30 minutes before meals.

Antacids

Take care when you use antacids. Most tablets and a few mixtures contain **aluminium**. Over time aluminium can accumulate in your brain and lead to Alzheimer's disease. Read the labels and avoid those with aluminium. You can safely use simple mixtures such as Milk of Magnesia. Or you can make your own by adding a teaspoonful of sodium bicarbonate to a glass of warm water. This is the same as Alka-Seltzer without the fizz and the aspirin.

H2 Blockers and PPIs

These are strong drugs. H2 Blockers like cimetidine (Tagamet) and ranitidine (Zantac) block acid secretion as do PPIs such as omeprazole (Losec) and lansoprazole (Zoton) which block acid even more. However a study in the British Medical Journal found a 25% increase in mortality for those on PPIs compared to those on H2 blockers. These drugs are often very effective at

stopping symptoms. But there is a price to pay. You need acid to digest food properly and to absorb nutrients, particularly vitamin B12, calcium and amino acids (key proteins). The standard recommendation for PPIs is that they should not be taken for more than 8 weeks. Osteoporosis is a recognised problem when these drugs are used long-term. You also need acid to protect your gut against bacteria and fungi.

A further problem is that symptoms can rebound when you stop taking drugs. **So only use these drugs as long as you need to take them, then gradually cut down and stop them**.