

Improving your digestion

Nothing created by man compares to the magnificent design of the human body. For example, today you will produce 10 litres of digestive juices to break down the food you eat and enable it to pass through your 'inside skin', the gastrointestinal wall, a 30 foot long tract with a surface area the size of a small football pitch which effectively replaces itself every four days. The health of your gastrointestinal tract is maintained by a team of some 300 strains of bacteria and other micro-organisms...

Like all other animals, we spend our physical lives processing organic matter for waste. How good we are at it determines our energy level, longevity and state of body and mind. A lack of nutrients and the wrong kind of food can result in faulty digestion, faulty absorption, abnormal gut reactions including bloating and inflammation, gut infections and poor elimination. The knock on effects disrupt every body system immunity, the brain and nervous system, hormonal balance and our ability to detoxify.

How good is your digestion?

- | | | |
|--|---|---|
| <input type="checkbox"/> Fail to chew your food properly? | <input type="checkbox"/> Find it difficult to digest fatty foods? | <input type="checkbox"/> Often feel nauseous? |
| <input type="checkbox"/> Suffer from bad breath? | <input type="checkbox"/> Often get diarrhoea? | <input type="checkbox"/> Often belch or pass wind? |
| <input type="checkbox"/> Get burning sensation in your stomach or regularly use indigestion tablets? | <input type="checkbox"/> Often suffer from constipation? | <input type="checkbox"/> Fail to have a bowel movement at least once a day? |
| <input type="checkbox"/> Often have an uncomfortable feeling of fullness in your stomach? | <input type="checkbox"/> Often get a bloated stomach? | <input type="checkbox"/> Feel worse, or excessively sleepy after meals? |

Score 1 point for each 'yes' answer. If you scored more than 4, we advise you to follow the recommendations in this programme and consider consulting a nutritional therapist or nutritionally oriented doctor.

Stomach aid - the right balance

Digestion starts in the senses. The sight and smell of food initiate chemical reactions that get us ready to assimilate and digest food. Chewing is particularly important because messages are sent to the digestive tract to prepare different enzyme secretions according to what is in the mouth.

Food then passes into the stomach, where large proteins are broken down into smaller groups of amino acids. The first step in protein digestion is carried out by hydrochloric acid released from the stomach wall, which is dependent on zinc. Hydrochloric acid production often declines with age, as do zinc levels. The consequence is indigestion, particularly noticeable after high protein meals. Taking an antacid will only make the problem worse in this instance. The nutritional solution for too little stomach acid is to take a digestive supplement containing betaine hydrochloride, plus at least 15mg of zinc citrate.

Some people, however, produce too much stomach acid, experienced as indigestion and a burning sensation. This is usually rectified by avoiding acid forming and irritating foods and drinks: alcohol, coffee, tea and aspirin all irritate the gut wall. Meat, fish, eggs and other concentrated proteins stimulate acid production and can aggravate over-acidity. The minerals calcium and magnesium are particularly alkaline and tend to have a calming effect on people suffering from excess acidity.

Digestive enzymes

The stomach also produces a range of enzymes to break down protein. Protein digestion continues in the first part of the small intestine the duodenum, into which flow digestive enzymes produced in the pancreas and liver. The pancreas is the primary organ of digestion, and special cells in it produce enzymes for breaking down carbohydrates, fats and proteins. The production of digestive enzymes depends on many micro-nutrients, especially vitamin B6. Sub-optimum nutrition often results in sub-optimum digestion, which in turn creates sub-optimum absorption so that nutritional intake gets worse and worse. The consequence is undigested food in the small intestine, which encourages the proliferation of the wrong kind of bacteria and other micro-organisms. Symptoms can include flatulence, abdominal pain and bloating.

The easiest way to correct this kind of problem is to take a broad spectrum digestive enzyme supplement with each meal. Before being digested, fat has to be specially prepared. Bile is produced by the liver and stored in the gall bladder. Bile contains lecithin, which helps to emulsify large fat particles and turn them into tiny particles with a greater surface area for the fat splitting enzyme lipase to work on. Supplementing lecithin granules can help people with poor tolerance of fat, e.g. for those who have had their gall bladder removed.

Digestion & Good health

Probiotics

your digestive tract's best friend

They help to digest your food, improve the absorption of calcium and other minerals, manufacture vitamins (primarily K, B12 and folic acid), relieve constipation and are important healers in a wide variety of digestive disorders (e.g. Crohn's disease, ulcerative colitis, diarrhoea, IBS).

One of the ways in which probiotics may help is by promoting healing and repair of the digestive tract. When the digestive tract is inflamed, perhaps due to disease, infection or irritation by alcohol, painkillers or antibiotics, it can become abnormally permeable, which is a major cause of the development of food allergies and detoxification problems.

This sequence of events can also cause other inflammatory diseases such as arthritis, which has been shown to benefit from probiotics.

The digestive tract can be restored to health by short chain fatty acids which are naturally produced by Lactobacilli and Bifidobacteria. The most proven benefit of probiotics is in cases of diarrhoea, especially those brought on by bacterial infections. In most cases, provided the right strain of bacteria at the right strength is used, probiotics can halve recovery time from a bout of diarrhoea. Hence, probiotics are an exotic traveller's best friend!

If you suffer from food allergies, the chances are probiotics will help you too. Many food reactions may not be solely due to food allergy but also due to the feeding of unfriendly bacteria which then produce substances that activate the immune system in the gut. Probiotics have been shown to help reduce inflammatory reactions in food allergies by lessening the response in the gut to allergenic foods.

Another way to boost the healthy bacteria inside you is to eat foods that feed them. The best food for your health promoting bacteria are called fructooligosaccharides, or FOS for short, sometimes known as a probiotic. Fruit, barley, garlic, onions, soya beans and wheat are rich in probiotics. Yoghurt, cottage cheese, sauerkraut, pickles, miso, tofu, tempeh, tamari, soya yoghurt, wine (yes, really!) and sourdough bread are all rich sources of probiotics. Avoid probiotic drinks as these are often high in sugar.

Gut reactions

While indigestion can be caused by a lack or excess of stomach acid, a lack of digestive enzymes or a lack of probiotics, these are not the only possibilities.

Many of the foods we eat irritate and damage our very sensitive and vitally important interface with the inside world. One such food is wheat, in which a protein called gluten contains gliadin, a known intestinal irritant. A small amount may be tolerated, but most people in Britain consume wheat in the form of biscuits, toast, bread, cereals, cakes, pastry and pasta at least three times a day. This can cause digestive discomfort or gluten sensitivity in severe cases.

Gut infections

The best way to get a gut infection is to eat plenty of sugar, suffer from indigestion and have regular courses of antibiotics. There are around 300 different strains of bacteria in the gut, most of which are essential. They protect us from harmful bacteria, viruses and other dangerous organisms.

Antibiotics wipe out all the bacteria in the body, good as well as bad. If the gut contains the wrong kind of bacteria, or perhaps an overgrowth of a yeast-like organism called candida albicans, a high sugar diet, including fruit, can exacerbate the problem. Feelings of intoxication, drowsiness and bloating after consuming sugar are good indicators of a potential imbalance.

A number of powerful natural remedies have been proven to help with gut infections. Caprylic acid, extracted from coconuts, olive leaf and grapefruit seed extracts are powerful anti-fungal agents. Probiotics are another good solution.