



## RELIEF FOR FLATUS, BELCHING AND BLOATING

Flatus, belching and bloating was recognised by the man generally credited as the father of medicine – Hippocrates. He claimed that gas makes you feel whole. Roman Emperor Claudius even made a rule allowing people to pass gas. However, in 315 his successor Constantine reversed this ruling, outlawing belching and flatus in the city.

Had he understood biological processes, the emperor would've known everybody would break his law – 13 times a day, on average. People expel 200 to 2000ml of gas every day, most of it methane, nitrogen and hydrogen.

### Where intestinal gas comes from

Much of the gas that builds up in the gut is nothing but swallowed air. Swallowing air is something many people do, mostly without realising it. It tends to happen more when people are stressed or anxious. If you drink through a straw, eat fast or wear dentures that don't fit well, you're more likely to swallow air. So do people who chew gum or smoke.

However, the major cause for intestinal gas that you have to consider is your diet. Some foods are likely to have a greater effect on you than others. Try to figure out what the risky foods are for you.

Everyone is affected by carbonated drinks, as they emit the gas that is dissolved in them even long after you have swallowed the drink.

Other common foods that cause intestinal gas are beans and legumes, some vegetables, fibrous supplements and food sweeteners.

Popular sweeteners such as Splenda® and Equal® are very much like sugar, but are not absorbed in your metabolism, so don't contribute to weight gain. The downside is that they enter your bowels undigested. Here, like other sugars, they start to ferment, causing gas. Sugars of this type (for instance mannitol and sorbitol) that aren't digested are popular in diet foods. Yet they all ferment in the bowel, releasing gases.

### Legumes, beans and fibre supplements

It is well-established even among laymen that beans and legumes cause gas in the intestine. The culprits are the sugars stachyose and raffinose. Vegetables such as cauliflower, broccoli, kumara and potatoes also contain these sugars, though not to the same degree as beans and legumes. Lacking the required enzymes, the human digestive system cannot break down these sugars, so they ferment in the bowels.

Some fibre supplements contain psyllium, a soluble fibre that dissolves into a gelatinous mass which ferments in the bowel. The same doesn't apply to non-fermentable fibres, e.g. wheat germ. For people who have a high fibre intake, even the sugars naturally found in fruit can cause gas.

Clearly, the common factor in the examples above is sugar that ferments in the bowels. Therefore it makes sense to consider which foods are likely to create these fermentable sugars and to then avoid them.

## **Lack of lactase**

A shortage of lactase, the enzyme that breaks down lactose (the sugar in dairy) is another factor commonly associated with gas problems. Lactase deficiency often develops as people grow older and the lining of the bowel gets thinner. Asians of all ages are generally susceptible to lactase deficiency.

If you have lactase deficiency, you'll most likely find that you have gas problems after eating dairy products such as milk, cheese or ice-cream. Bloating and diarrhoea may also occur.

The gas problems associated with lactase deficiency are linked to undigested sugar as well. Lactose is a sugar, and if it is not properly digested, it ferments in the intestine, releasing gas that causes bloating and flatus.

## **How you can remedy excess intestinal gas**

You can take a number of easy steps to reduce or remedy a surplus of bowel gas.

Once you have identified your personal habits (chewing gum, smoking, swallowing air) and particular foods that cause gas, you can seek to avoid them.

You can replace starches such as potato and sweet potato (kumara) with rice, which doesn't cause nearly as much gas. Limit your intake of beans, legumes and vegetables that cause gas. Be careful of using sweeteners or drinking through a straw.

There are also products such as Beano® that can help you to digest the sugars raffinose and stachyose that are contained in beans and gas-producing vegetables. You should be able to find Beano® advertised on the Internet.

Antacids often contain an agent called simethicone that is known to break up gas in the stomach. This should help relieve wind in the upper bowel.

Of course, probiotics that help establish a healthy balance of bacteria in the gut can also aid with the reduction of intestinal gas.

There is a new drug called Rifaximin that has been developed to treat irritable bowel. As part of its action, it curbs overgrowth bacteria in the small bowel particularly, which should also aid the treatment of bloating and flatus. It is expected that this drug will be released in New Zealand in due course.

*Information largely sourced from a lecture by Prof. David A. Johnson, Professor of Medicine, Chief of Gastroenterology, Eastern Virginia Medical School, Norfolk, Virginia, USA.*