

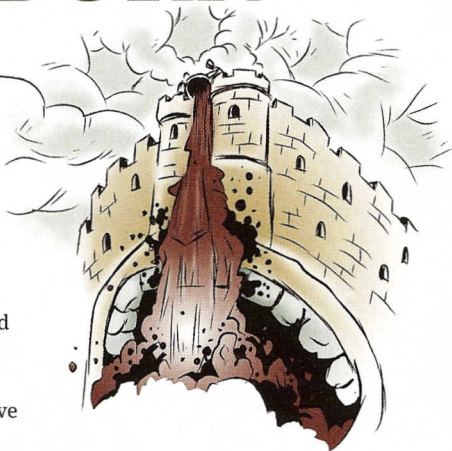
HEARTBURN

Booze, coffee and too much fatty or spicy food can all trigger the painful form of indigestion commonly known as heartburn. It's a sharp burning sensation in the oesophagus, the tube running behind the breastbone that connects your mouth and stomach.

"Heartburn is caused by acid from the stomach 'leaking' back up your oesophagus," explains Professor David Armstrong at Kings College London School of Medicine.

Those people who are prone to it have a weakness in the sphincter muscle at the top of their stomach – a valve that's meant to seal the stomach's powerful acids safely inside.

While the lining of your stomach is resistant to the digestive effects of these acids, the oesophagus is not. The



pain you feel when you get heartburn is actually caused by stomach acid burning away at the inside of your gullet. In some cases, such as when you're lying down, acid can even wash up into your throat.

BLUSHING

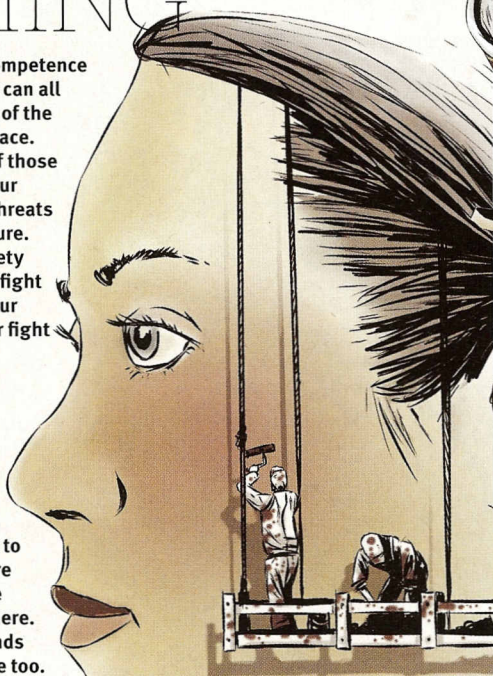
Humiliation and feelings of incompetence or inadequacy in front of others can all make us embarrassed. And one of the effects is that we go red in the face.

It turns out blushing is one of those traits that we can put down to our evolutionary past, when most threats we faced were of a physical nature. Embarrassment causes us anxiety and this triggers our so-called 'fight or flight' response – charging our bodies with adrenaline to either fight the threat or run away from it.

Adrenaline makes the heart pound faster to ensure a plentiful supply of oxygen to the muscles. But this also has the effect of making us hotter. To cool ourselves down, we sweat and blood flows through capillaries at the skin's surface to cause redness (blushing) – more pronounced in the face because there are more blood vessels there.

Of course, plenty of other kinds of stress make us red in the face too. But embarrassment tends to strike when we'd rather not advertise our emotional state to those around us.

And when it starts, it's hard to stop. "Once we find ourselves blushing, many of us start to feel even more embarrassed as we may perceive further threat to our social standing, say, by thinking we look weak to others," says Dr Michael Sinclair of the City Psychology Group in London. "We then start to become 'anxious about being anxious', and a vicious cycle of embarrassment, anxiety, blushing and more embarrassment and then more blushing, starts to emerge."



LOUD FARTS

Why do some of us break wind with a 'pffft' so quiet it's barely audible, while others seem obliged to step on the proverbial duck?

There are a number of factors that can make for noisy flatus (the proper name for a fart's gaseous mixture), including the volume and speed of the escaping gas. Foods that produce a great deal of gas, such as baked beans, cook up flatus that's a lot noisier than that from low-gas foods, such as rice.

Another major contributor is how tight the sphincter muscle in your anus is. Tight sphincters typically produce louder flatus than looser muscles. Vegetarians provide a good example here. The large quantity of indigestible matter (plant fibre, aka roughage) in a vegetarian diet often makes their stools larger than those of meat-eaters. This results in a looser sphincter and hence farts that are relatively silent – but deadly.



TUMMY RUMBLES

Here's a thing. The growling sound your stomach makes when you're hungry isn't made by your stomach and doesn't happen because you're hungry. Also known as 'borborygmus', the noise is actually made in the upper section of your small intestine – the part of the digestive tract below your stomach. As your intestinal muscles go to work shuffling food and liquid downwards, gas is squeezed out of the food, which rises through the liquid, making a burbling noise. When your stomach is empty – as it is when you're hungry – it acts as a big resonant cavity to amplify the sound.

Peeing in the cold

Why does cold weather make you want to urinate more often? It's because blood vessels close to the surface of your skin constrict due to the low temperatures, to minimise the amount of blood that's being exposed to the cold. This raises your blood pressure so your kidneys drain off excess fluid from the blood and dump it into your bladder to reduce the pressure. After which it won't be long before nature calls.

Blisters

Ill-fitting shoes are usually enough to give you a blister or two. Friction blisters, such as this, are caused when the chafing against the outer layer of skin physically separates it from the layer underneath. The space then usually fills up with lymph – the clear liquid that sloshes between your cells. But, when a blister is caused by more violent means (like hitting your thumb with a hammer) it may rupture a blood vessel, creating a darker 'blood blister'.