



RICTAT

International Colonic Association

Trusted Provider

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Flying

Bit of physics first...

Gas molecules always want to take up as much space as is possible. Think of spraying an aerosol into a room and the molecules disperse all the way through. Think of steam from cooking dispersing throughout a kitchen and condensing on windows.

Air pressure on the ground is higher than it is high up in the sky where aeroplanes fly. Air is pressurised in the cabin but not to the same level as sea level. Planes are pressurised but not to the same level as on the ground. Effectively we have less pressure being exerted upon our body.

This allows our body to expand and also means everything inside our body expands too.

The extra space in our expanded body also allows more room for gas bubbles to expand. With more room to expand, they become more active and create more pressure, a bit like shaking a bottle of pop. This extra pressure then creates bloating and is also the reason people pass a lot of gas when flying. Once we land and are back to normal sea level, things pressurise back to normal but this can take a few days, so people can suffer bloating on their holiday for a time.

Add in change of food, alcohol, water (different mineral content) heat, daily habits and it's no wonder people have problems. They also may be more constipated after the effect of the flying.

Think about a packet of crisps and the little milk pots on a plane. They are almost bursting with the pressure of the gas inside trying to get out.

Dehydration.

Apparently, when flying, around 50% of the air is drawn in from the outside and at high altitude the air is dry, with no moisture. This results in the cabin air that you breathe being very dry. You breathe out moist air but breathe in dry air. This contributes hugely to dehydration when flying and whilst there are various estimates of how much fluid we lose when flying, a typical estimate is 1.5-2 litres. That's up to 8% water loss to the body.

Gas.

Gas molecules like to get as far away from each other as possible. You can see this with steam which contains gases combined with water. Boil the kettle or a saucepan and steam gets everywhere. It's a visible image of how gases like to expand.

When gas forms in your bowel, (which is perfectly normal and natural,) if everything is working well, we naturally pass it out of our bodies as we move around or use the toilet.

But, once we get a build-up of waste matter, we produce more gas, which, if you are congested and constipated, can build up pressure and this becomes self-perpetuating.

The more gas we produce, the more the molecules want to expand away from each other and this starts to create pressure against the bowel wall. This pressure exerted against your bowel wall is picked up by nerves and pain receptors and you then feel the pain and discomfort we all identify with. Imagine a balloon. Blow it up a little and the balloon feels soft, the more gas that you put in it, the tighter and more pressured it becomes. Too much gas and it puts the balloon under high pressure as the gas molecules try to get away from each other.

Your bowel is similar. The gas molecules put your bowel under pressure as the molecules try to expand and create pain, bloating and an abdomen that can feel as hard as a drum.

As gas travels along your bowel, the bowel wall experiences variations of pressure which cause you to feel more pain and discomfort.