

# Gut Microbes Best Friend Worst Enemy

5-6 minutes

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It's one of medicine's hot topics – that the microbes in our gut may contribute to hard-to-treat problems like allergies, auto immune disease, irritable bowel syndrome, inflammatory bowel disease and even obesity and diabetes.

Ideally these different bugs – and there's 100 trillion of them in there – should keep us healthy by doing important jobs like regulating our immune systems and helping with metabolism. But emerging evidence suggests our health can suffer when the balance of these microbes goes awry.

It's complex science and we're a long way off knowing all the answers, but an intriguing example of how gut microbes might influence our health came from Dutch scientists this year after they took microbes from the guts of lean people and put them into the guts of people with metabolic syndrome – that cluster of symptoms like overweight, high blood pressure and high blood sugar that can lead to diabetes. Six weeks later the recipients had good news – their insulin sensitivity had improved, meaning their bodies were better at controlling blood sugar.

The factors that might be disrupting gut microbes – and contributing to chronic disease as a result – is on the list of topics at this weekend's Lifestyle Medicine Conference in Sydney organised by the [Australian Lifestyle Medicine Association](#). Our sanitised environment and changing diet are among the suspects, but according to Sydney gastroenterologist Professor Tom Borody, one of the conference speakers, it's six decades of using antibiotics that's upset the balance of gut microbes the most.

"Gut microbiota perform so many essential roles in the body that they work like an organ in their own right. Yet we're damaging this important organ by knocking out valuable bacteria with recurrent use of antibiotics," he says. "We should only use antibiotics when we really need them, not when we have a cold, for instance."

But if, as some research suggests, problems like irritable bowel syndrome or inflammatory bowel disease are related to disrupted gut microbes, it could take more than a tub of yoghurt to fix the problem.

"Probiotics are promising – there's evidence they can help in part to restore the balance after antibiotics, for instance – but we don't have yet have a probiotic that can undo all the damage," says Borody.

He has another idea – recolonising the gut with microbes from a healthy gut. Called faecal microbiota transplantation, and still considered a fringe therapy in Australia, it involves harvesting microbes from donor poo and transferring it to recipients in a procedure similar to a colonoscopy. It's more widely accepted in the US where it's often used to treat [Clostridium difficile](#), a potentially serious bacterial gut infection related to antibiotic use which kills thousands of Americans each year.

"But there's also some evidence that other conditions including ulcerative colitis, chronic severe diarrhoea and IBS can be improved with FMT," says Borody who uses the technique in his own practice and believes we need more research to explore its potential as a treatment.

As for what we can do ourselves to keep our gut microbiota in good shape, he suggests avoiding antibiotics where possible, but if you do need them to take probiotics as well.

"Probiotics aren't perfect and are limited in what they can do, but they can bring useful microbes into the gut," he says.

Fibre in the diet may help too by providing food that helps good microbes flourish, he adds. And if you're travelling to exotic locations, a glass of wine or two won't hurt, he adds.

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"It's quite common for IBS to begin after an overseas trip but a small amount of alcohol can work together with stomach acid to prevent new bacteria colonising the bowel."

There's a free pre-conference forum at 5.30pm, Friday November 2 at Freshwater to hear the ABC Science Show's Robyn Williams speak about 'Science and wellbeing: facing the doubters', and Professor Ian Lowe of the Australian Conservation Foundation talk about the influence of the environment and unlimited economic growth on public health. See [www.lifestylemedicine.com.au](http://www.lifestylemedicine.com.au) for more info.

**Have you found relief for gut problems like IBS or inflammatory bowel disease?**