

Doctor Tom Borody claims faecal transplants curing incurable diseases like Crohn's

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[Video: Faecal transplants claimed to cure the incurable \(Lateline\)](#)

An Australian doctor claims he is curing incurable diseases using an all-natural waste product we usually flush away - human stool.

Professor Tom Borody has been championing the treatment, known as faecal microbiota transplantation (FMT), for 25 years.

As modern science begins to appreciate the critical role gut bacteria plays in human health, his treatment of diseases including Crohn's and colitis, auto immune diseases and even neurological disease is provoking both criticism and excitement.

While some doctors regard faecal transplants as potentially dangerous, two of Australia's biggest teaching hospitals are embarking on a large national trial. Professor Borody is at science's new frontier, manipulating the bacteria that live in the human gut.

"In terms of genetics there are 3.1 million genes. That's a hell of a crowd of individuals living in our colon," he said.

Bacterial cells far outnumber human cells in our bodies and bacteria experts including CSIRO's chief research scientist, Dr David Topping, believe the world is at the edge of an extraordinary medical revolution that will come through the understanding of the so-called human microbiome.

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Professor Borody is not waiting for controlled clinical trials to treat a range of diseases.

Patients travel to his Sydney clinic from as far as the UK. Many are seriously ill. They come for FMT, where donor human stool is injected into their intestines or colons.

"We know that bacteria manufacture active anti-microbial molecules so when we infuse these new bacteria they are like a factory of antibiotics that have gone in there and they weed out and kill the bug that we cannot identify," Professor Borody said.

FMT is now recognised in the US as a first line treatment to combat an epidemic of the antibiotic-resistant and often deadly gut bacteria, C.difficile.

But Professor Borody claims he has also cured dozens of colitis and Crohn's cases, gut diseases regarded as incurable.

"I think it's a hell of a breakthrough to say we can cure colitis," he said.

Nurse 'cured' of Crohn's after faecal transplant

Today nurse Suzanne Heskett is full of energy and walks several kilometres each day, but 13 years ago she was very ill, diagnosed with Crohn's, a disease she believed would never be cured.

"I really believe that I was so sick that I would have ended up with part of my bowel removed," she said.

"I was going to the toilet 18 times a day. I was sitting on the toilet for hours, cramping and in pain."

During a consultation with Professor Borody he told her a cure was possible. It was an opportunity that Ms Heskett could not turn down.

"When Professor Borody offered this chance of a cure I thought: what if it works?" she said.

"They put a nasal tube down into my small intestine. I had three donors - about 950 mls - and all up it took about five hours."

She says she felt better almost immediately and over several months her condition steadily improved.

"Eleven months after having the stool transplant I had another colonoscopy to see what it looked like," she said.

"I remember I was waking up from the anaesthetic and I heard Professor Borody say if he hadn't known I'd had Crohn's he wouldn't have believed it. I was so happy."

Ms Heskett's colon has been healthy for 12 years with no sign of the Crohn's infection that had kept her housebound for years.

Australian Gastroenterological Society urges caution

Other doctors, however, are not convinced faecal transplantation cured Ms Heskett.

Dr Katie Ellard, president of the Australian Gastroenterological Society, says no data exists to show FMT cures anything except infections caused by the bacteria, *C.difficile*.

"Crohn's disease can wax and wane and people can get better for a while without intervention," she said.

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Dr Katie Ellard

"We don't know how to manipulate the faecal microbiota do we? It's not impossible that we could do something that could give the patient symptoms or exacerbate their problem."

Mainstream medicine may not have embraced faecal transplants, but Professor Borody has a patient waiting list that extends into next year.

His collaborator Emeritus Professor Robert Clancy says FMT is not only safe but a game-changer.

"If we can completely change the outcome of a significant proportion of patients with colitis for the very first time then it tells us a lot more about what is causing it," he said.

"It opens up opportunities for other areas and conditions. It's very exciting to be on the edge of this new idea about how the bacteria in the gut are driving and talking to the rest of the body."

Professor believes gut is gateway to toxins

Controversially, Professor Borody believes the gut is the gateway for toxins to enter the body, triggering an array of seemingly unrelated diseases including rheumatoid arthritis, Parkinson's and autism.

He says he has been surprised many times when diseases far from the gut have eased or vanished following faecal microbiota transplantations.

"We've had a young person with rheumatoid arthritis and it went away. It was classic rheumatoid factor positive RA," he said.

Professor Borody also claims symptoms of Parkinson's eased in three patients treated for chronic constipation.

But scepticism is strong. Autism Australia says there is no evidence that antibiotics can treat autism, and Parkinson's groups do not recommend patients have faecal transplants.

The Australian Medical Association does not have a view on the treatment, and Medicare offers no rebate.

Case for gut pathogens triggering diseases builds

But worldwide, as interest grows, the case for gut pathogens triggering a vast range of diseases is building.

"It makes sense that molecules can get into the body's system and change it, affect immunity, cause allergies," Professor Clancy said.

"It is just an extension of that idea that pathogens would disturb brain structure and function, and the heart. We're looking at everything afresh."

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Recently scientists found the distinct pathological signature for Parkinson's in the colons of people in the early stage of the disease.

The CSIRO thinks such discoveries open the way for a profound change in treating and perhaps one day preventing diseases that plague the modern world.

"The interaction between microflora, particularly their products and their substrate, holds immense potential for the management and prevention of serious diseases, colorectal cancer, inflammatory bowel disease, perhaps even conditions like Alzheimer's, autism and Parkinson's," Dr Topping said.

A nationwide trial of faecal transplants as a treatment for colitis is about to get underway, under the direction of St Vincent's hospitals in Sydney and Melbourne.