

# Catalyst: Science in Profile: Prof Thomas Borody

4-5 minutes

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## **Prof Thomas Borody**

I was born in Krakow in 1950 in Poland and we arrived in Sydney 15th of January, 1960. It was quite a contrast when we arrived we live now in a western world and we no longer had such restrictions as we did. Mum actually wrote a book about this whole experience.

My father was a minister of religion. And Mum was a wonderful woman. My parents felt that we should be educated in something that would help mankind. So my sister did medicine first. And she became a general practitioner. And my brother became an obstetrician gynaecologist and I moved into a different orifice. I became a gastroenterologist.

Gastroenterology is the sub-specialty dealing with the gastro-intestinal tract. What you eat today walks and talks tomorrow.

A typical day in gastroenterology would start around six thirty in the morning because patients are starving. And we firstly do procedures. We look inside people's stomachs, called a gastroscopy. Or in their bowels, colonoscopy. Or both. To diagnose what's going on and to watch progress.

You might ask the question: What am I famous for? I think it goes back to 1983, 84 when I first heard Barry Marshall with Robin Warren suggest that ulcers were not caused by stress and acid, but by bacterium.

## **ABC News footage**

Barry Marshall and Robin Warren won the Medicine prize for their radical research into the cause of stomach ulcers... Their labours in a Perth laboratory have led them to the ultimate of awards. The Nobel committee awarded them as much for the medical breakthrough as for challenging ingrained beliefs.

## **Prof Thomas Borody**

*Helicobacter pylori* is the bacterium that is now known to cause duodenum ulcer, the gastric ulcer disease. The bacteria was thought not to be able to survive in the acid. But it's a very clever bacterium and actually lives in the mucus away from the acid. So they survive very nicely for decades in, in the stomach lining.

I thought, well if it's an infection we should be able to cure it.

We developed triple therapy in 1984. The development was quite a complex affair. We went through about 36 different combinations. And of course each one of these combinations had to be used to treat patients to, to heal their ulcers. And finally the best one was bismuth, tetracycline and flagyl.

The triple antibiotic therapy worked in the mucus and in the lining and got rid of the bacteria and when they were gone the inflammation was gone and the ulcer actually healed up. There was a lot of opposition from people who were the leaders in the field. It took the next generation of gastroenterologists to finally accept the concept that, yes, there was a chronic inflammation, yes, there was a chronic infection and if you eradicated this, the ulcer healed.

Patients who came back saying that they're cured, that is the greatest positive a doctor can, can get.

The blaming of lifestyle on causation of various illnesses has been the in thing. And of course we believed that ulcers were caused because we're stressed, that coronary artery disease was caused by stress and, and fatty meals. But now we're learning that much of what we thought was caused by lifestyle is caused by chronic infections that are not recognised.

That very paradigm shift allowed me to think, well let's look at some other inflammations in the body such as Crohn's Disease, ulcerative colitis, coronary artery disease, asthma. We've been able to penetrate and change the concepts by developing therapies that reverse the infection which then reverse the inflammation and change the natural history of the diseases.

I'm not suggesting that we should give up a good lifestyle because it makes you feel good when you exercise. If you like it, eat it. But it doesn't make your hair grow is what the message is. It's caused by something else. And that's what we should study.

It just takes courage and takes, years and years of perseverance to change paradigms. Patients returning, telling you that they feel so much better I think is the prime reason why I keep going.

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