

MEDIA RELEASE

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Breath tells our deepest secrets!

Latest research from the Women's and Children's Hospital's Gastroenterology Department (part of the Children, Youth and Women's Health Service) using a world-first non-invasive breath test, has shown that even people who have no obvious abnormal gut symptoms, such as discomfort, diarrhoea or constipation, can have gut bacterial overgrowth.

In 2003, the Hospital initiated a trial to see just how extensive small bowel overgrowth is in the population. With over 500 people responding to the call for recruits, the research group has been able to show that bacterial overgrowth is much more common than the research team had originally thought and that apparently 'healthy' people are not resistant.

Chief Medical Scientist Dr Ross Butler says they now need to expand their studies to more fully understand the implications of their findings.

"The exact cause of small bowel bacterial overgrowth is not known," Dr Butler said. "We do know that it results when bacteria, normally living in the colon or large bowel, move into and start growing in the small intestine. This can result in response to anything that alters gut flora, for example, prolonged antibiotics, certain other medications and stress.

"Studies have shown that Irritable Bowel Syndrome, which occurs in 13% of the population, is linked to small bowel bacterial overgrowth. We also thought bacterial overgrowth resulted in bloating, diarrhoea and malnutrition, but now we find that this is not necessarily the case, even symptom-free 'healthy' people can have bacterial overgrowth. Many of these symptom-free people were very surprised to find they weren't merely 'controls' for the trial, but actually were an active part of the trial.

"We need more people to take part in our trial. They can either be healthy and symptom-free or have symptoms which include flatulence, dyspepsia, pain and diarrhoea.

"Either sex can apply to take part, but in particular we would like as many males as possible in the trial and people can be from any ethnic background," Dr Butler said.

Participants must not have been on antibiotics in the past four weeks; not be pregnant or likely to be pregnant; and have had no gastrointestinal surgery or tumours.

Participants will need to fast overnight, and then drink a labelled sugar solution (^{13}C and ^{14}C). Breath will be collected over four hours. The sugars in the drink are used by bacteria in the intestines with resulting carbon dioxide and hydrogen gas being absorbed by the blood, and then breathed out through the lungs. Breath samples will be collected by blowing into a glass tube.

Those persons who give a positive test for bacteria will be able to find out whether they have a particular bacterium called *H pylori* by also donating a 10ml blood sample. This bacteria is known to be involved in gut ulcers and stomach cancer and can be eliminated with specific antibiotics.

Persons interested in taking part in the trial should contact the Women's and Children's Hospital on 8161 7119 or 8161 6151

To organise interviews with Dr Butler please contact:

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