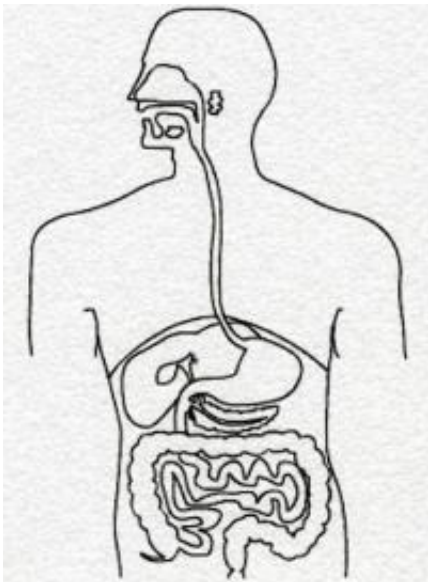


Gut bacteria can manufacture defences against cancer and inflammatory bowel disease

February 6 2009



(PhysOrg.com) -- Bacteria naturally present in the human gut could produce substances that help to protect against colon cancer and provide therapy for inflammatory bowel disease.

In a paper published in the journal *Microbiology*, researchers from the University of Aberdeen Rowett Institute of Nutrition and Health and from the MTT Agrifood Research Institute in Finland report initial

studies showing that bacteria in the human gut convert linoleic acid, a naturally-occurring fat in the diet, into a form called conjugated linoleic acid (CLA) which is absorbed by the gut wall.

There are different types of CLA and not all of them have beneficial effects. The "good" form of CLA is present in dairy foods such as milk and cheese," said Dr John Wallace of the Rowett Research Institute, "but eating lots of dairy foods won't necessarily help our gut health as most of the fats are digested in the small intestine before they get to the large intestine, where most of our gut bacteria are found."

The results of these latest studies showed that several different forms of CLA are produced by gut bacteria. Fortunately, most was of the "good" kind, but Dr Wallace stressed that more extensive studies are needed. One subject produced small amounts of a CLA whose beneficial or otherwise effects are much less clear.

The implications are that, if small quantities of dietary linoleic acid can be delivered to the large intestine, the effects on gut health will be generally beneficial in most people. He added, "The results are of special interest for individuals using anti-obesity treatments that prevent the small intestine from absorbing fats.

This means that those fats - including linoleic acid - will pass into the large intestine and the gut bacteria will produce CLA. It has to be the correct CLA, so it is important to understand how individuals produce different CLA. This must depend on which types of bacteria are present."

More information: The paper, "Differences between human subjects in the composition of the faecal bacterial community and faecal metabolism of linoleic acid" by Dr John Wallace et al is published in the February issue of Microbiology (Vol. 155, part 2, pp. 513-520).

mic.sgmjournals.org

Provided by University of Aberdeen

Citation: Gut bacteria can manufacture defences against cancer and inflammatory bowel disease (2009, February 6) retrieved 10 April 2024 from <https://phys.org/news/2009-02-gut-bacteria-defences-cancer-inflammatory.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.