



NUTRITION AND FOOD SCIENCES **HOT TOPIC:**

Obesity and Gut Flora

Can we treat obesity and obesity-related metabolic disease by changing the gut flora? Obesity and its associated diseases are among the leading causes of deaths throughout the world. Being overweight has been linked with dysbiosis in the gut microbiota, suggesting that specific microbiomes may contribute to gaining weight. There is a lot of research interest in manipulating the gut flora to treat or prevent obesity and associated diseases but the mechanisms by which they work and the best approach is not yet clear. Should we use single species of bacteria or go for foods that naturally contain a wide range of bacteria?

CABI's **Nutrition and Food Sciences** database enables the work of researchers and practitioners in universities, colleges, hospitals and industry.

CABI's Nutrition and Food Sciences database comprehensively covers hot topics that matter

Nutrition and Food Sciences covers environmental and public health sources as well as relevant material from agricultural research to provide a comprehensive picture on the link between obesity and gut flora and implications for general health.

- Supplements for weight loss:** Synbiotics are a combination of pre and probiotics, that may be more effective than either alone. Synbiotics have shown encouraging results in improving overall metabolic health, demonstrating an anti-obesity effect that could be useful in weight management.

Probiotics, Prebiotics and Synbiotics: Bioactive Foods in Health Promotion
Academic Press. London, 2015.

Effects of probiotics and synbiotics on obesity, insulin resistance syndrome, type 2 diabetes and non-alcoholic fatty liver disease: a review of human clinical trials.
International Journal of Molecular Sciences 2016
- Getting the supplements to the gut:** Probiotic supplements can be protected with a prebiotic.

Microencapsulation of *Lactobacillus plantarum* (MTCC 5422) with fructooligosaccharide as wall material by spray drying.
LWT – Food Science and Technology, 2015
- Fermented food and weight:** Including fermented milk products as part of the diet may improve metabolic symptoms; health benefits include reductions in body mass index, total cholesterol and low-density lipoprotein levels. However as with all foods its not clear it's the bacteria that are the beneficial component.

Is consuming yoghurt associated with weight management outcomes? Results from a systematic review.
International Journal of Obesity 2016

Kefir drink leads to a similar weight loss, compared with milk, in a dairy-rich non-energy-restricted diet in overweight or obese premenopausal women: a randomized controlled trial.
European Journal of Nutrition 2016
- How do they work?** Research suggests they may improve gut barrier function amongst other things.

Yogurt inhibits intestinal barrier dysfunction in Caco-2 cells by increasing tight junctions.
Food and Function 2017

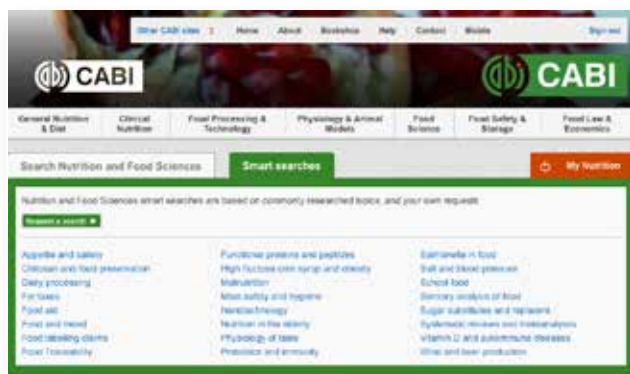
Introducing CABI's Nutrition and Food Sciences database

CABI's 'Nutrition and Food Sciences' is a specialist internet resource covering human nutrition, food science and food technology.

Compiled by specialists, the resource contains more than 1.3 million records dating back to 1973, with over 80,000 added annually. There are now more than 60,000 fulltext records.

No other resource can provide such a comprehensive view of the food chain or of the interactions between diet and health.

Nutrition and Food Sciences is available on our new and improved CAB Direct Science platform, re-launched July 2016.



www.cabi.org/nutrition