

About prebiotics





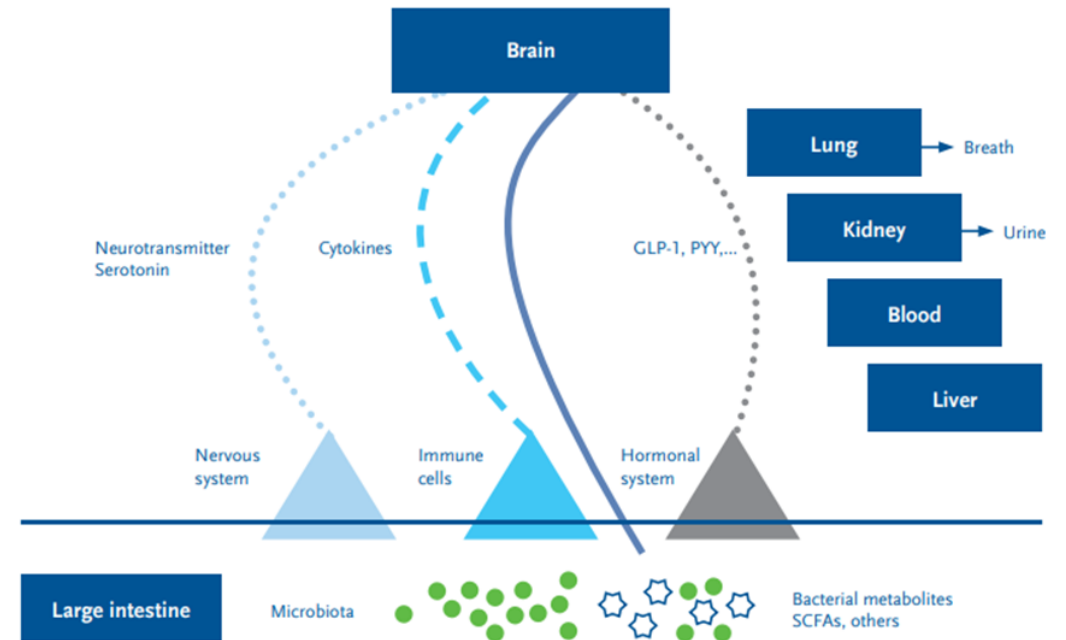
Prebiotics Vs Probiotics: What's the difference?

Prebiotics are different to probiotics.

- Probiotics are live organisms (good bacteria), when administered in adequate amounts confer a health benefit to the host.
- Prebiotics nourish the good bacteria that are naturally present in the gut as well as the probiotics, and offer a way of selectively stimulating the growth of the good bacteria.
- A mixture containing probiotics and prebiotics is called 'synbiotic'. It is a living organism (probiotic) that is combined with its preferred 'food' (prebiotic) in order to increase the survival rate of the organisms in the intestine.

The gut-brain axis and its impact

- Our colon is responsible for nutrient and water absorption and is a significant influencer of our immune system
 - About two-thirds of all immune cells of our body are based in our colon
 - Largest hormone producing organ of the body, e.g.ghrelin, GLP-1, PYY
 - These hormones can regulate hunger/satiety and influence insulin production
- Our gut microbiota breaks down undigested carbohydrates and produces short chain fatty acids (SCFAs)
- Increased consumption of prebiotics can positively influence the microbial composition of our gut, which has implications not only for our gut health but far beyond.



Prebiotics: More relevant than ever before

- Prebiotic concept first introduced in 1995 by Gibson and Roberfroid [\(1,2\)](#)
- Subject to intensive nutritional research ever since, with over 4,000 articles published in the last 5 years
- Well confirmed by scientists worldwide, including an expert panel under the umbrella of the International Life Science Institute (ILSI)

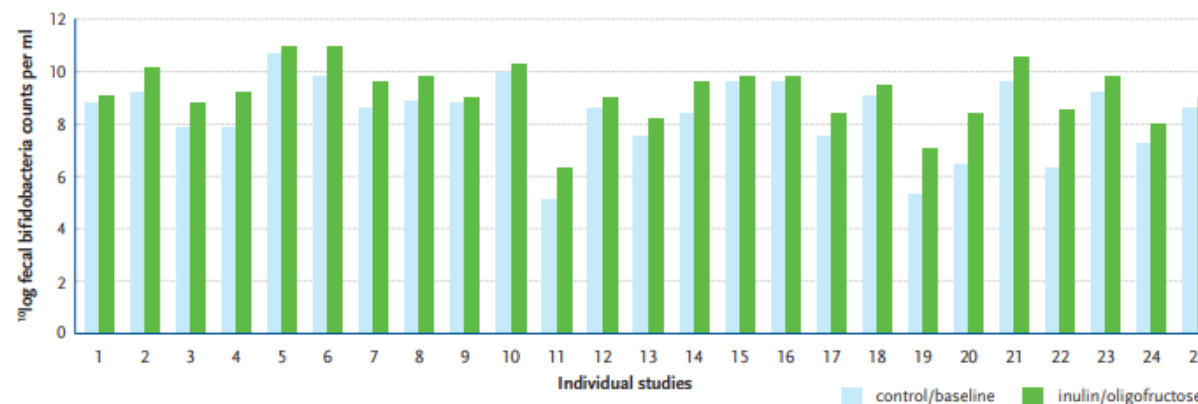
“The prebiotic effect exists and is now a well established scientific fact.”³



The prebiotic effect – chicory root fibres nourishes our good gut bacteria

Interest in the prebiotic effect on our gut microbiota composition is not new but has never been stronger.

Research applying state-of-the-art techniques confirmed a selective increase of beneficial bacteria, using *bifidobacteria* and *lactobacilli* as well as established biomarkers, after inulin and oligofructose consumption in human intervention studies.



The figure above demonstrates chicory root fibre data and their prebiotic effect with countable absolute numbers of bifidobacteria in adults. 25 human trials with chicory root fibres showed that inulin selectively stimulate the growth of bifidobacterial in the large intestine from dosages as low as 5g a day.

Four additional studies have confirmed the selective growth of beneficial bacteria with chicory root fibres using 'next-generation sequencing' as state-of-the-art technology to screen the complete microbiota. These findings contribute strongly to the evidence that chicory root fibres are certainly a 'favourite food source' of beneficial bacteria which support digestive health.*

*Source: Beneo chicory root fibre paper, available [here](#).