

Prebiotics and probiotics

Reviewed by SickKids Staff | Last updated: October 19th 2016

Learn how prebiotics and probiotics help keep your gut healthy and which foods are good sources.

Key points

- Pre- and probiotics promote the growth of healthy gut flora.
- Prebiotics are naturally found in foods or can be taken as a supplement.
- Probiotics are naturally found in fermented foods or can be taken as a supplement.
- Not all sources of probiotics are the same.

The human [digestive system](#), or gut, contains trillions of microorganisms, which make up the gut flora. These microorganisms include bacteria, viruses and fungi. Bacteria are an important part of the gut flora. Some bacteria are good for your body because they help the gut break down certain types of foods and help create certain vitamins. However, some bacteria can be harmful.



Increasing the amount of good bacteria can be helpful in:

- reducing the severity and length of some types of [diarrhea](#) (e.g. [antibiotic-associated diarrhea](#))
- symptoms of [colic](#) in infants
- improving the symptoms of [irritable bowel syndrome](#) (IBS)
- improving [constipation](#) and related abdominal bloating
- improving symptoms associated with lactose intolerance.

Prebiotics and probiotics can help improve the balance between the good bacteria and harmful bacteria.

The difference between prebiotics and probiotics

Prebiotics

Prebiotics include non-digestible food matter that support the growth of the good bacteria that is already living in your gut. As a prebiotic passes through the gut, it is not digested and becomes food for the microorganisms living in your gut. Prebiotics help these microorganisms thrive. The prebiotic is then passed as stool.

Good food sources of prebiotics include:

- asparagus
- artichokes
- bananas
- berries
- flax
- onions
- garlic
- leeks
- legumes
- whole grains

Other prebiotics seen on the market include inulin and fructooligosaccharides (FOS). Inulin is a soluble dietary fibre made up of many simple sugars bound together. FOS is a sweet tasting fibre made up of multiple fructose molecules bound together.

Probiotics

Probiotics are live microorganisms. They can be taken as a dietary supplement in the form of capsules, tablets, powder, liquids or liquid drops. Probiotics can also be found in many fermented foods including:

- beets
- cabbage
- kefir
- soy
- yogurt

Eating probiotics increases the amount of good bacteria in the gut.

Not all sources of probiotics are the same. There are differences in:

- The probiotic type, also known as strain. The strain of the bacteria is how bacteria are classified/named.
- The number of different strains in one product.
- Manufacturing of the probiotic, i.e. the food or medium the microorganism is grown on.
- The concentration of probiotic. This is the number of microorganisms per serving. Probiotics need to survive the acidic stomach and reach the lower gut to have a benefit so more microorganisms per serving may mean more benefit.
- Shelf life and storage requirements.

Please visit [AboutKidsHealth.ca](https://www.aboutkidshealth.ca) for more child health information.

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