



Probiotics



Gut bacteria

Although people tend to think that bacteria are harmful germs that spoil food or make you ill, there are many bacteria that are good for our health. Our gut contains trillions of bacteria that are important for helping us stay healthy.

Did you know there are 10 times more bacteria in our gut than there are cells in our body and if you gathered together all of your gut bacteria they would weigh approximately 1 kg or 2.2 lb?

An imbalance in our gut bacteria can sometimes occur during times of stress, when we take antibiotics or in people who have conditions such as irritable bowel syndrome or ulcerative colitis.

What are probiotics?

Probiotics are good bacteria found in food products or supplements that can beneficially affect our health by improving the balance of our gut bacteria. They are available in fermented milk drinks and some yoghurts, as well as in supplements such as tablets, capsules or sachets.



Beware scientists have shown that some supplement-type probiotics (e.g. capsules, sachets) may not always contain the bacteria that they say on their label and they may not contain enough bacteria to be effective!

In order to protect us from getting food poisoning, our bodies are specially designed to stop the bacteria that we eat from getting into our gut. This is one reason why our stomach is very acidic. It is therefore really important that probiotics are robust enough to survive the acid in our stomach and reach our gut where they can then balance our own gut bacteria.

Probiotics are considered safe for people of all ages unless they have a condition that has harmed their immune system such as cancer or HIV. Specific advice should be sought from a doctor or dietitian.

How do probiotics work?

Many probiotics have been shown to restore the balance of the gut bacteria. When we eat probiotics they start to compete with bad bacteria for space and for food - therefore evicting

harmful bacteria from our gut! Probiotics also stimulate our own immune system to enable it to fight infections better - they can make colds last for less time!

They also help us to digest fibre from our diet and in doing so they produce acid compounds that keep the lining of our gut healthy.

What can probiotics be used for?

Many research studies have been done to find out whether taking probiotics is good for healthy people and people with specific diseases. The scientific evidence for their use keeps growing, but here are just a few areas that probiotics may be beneficial.

Taking a course of antibiotics -

antibiotics are really useful at fighting off bacterial infections, however, they also cause major changes to the balance of our gut bacteria, which sometimes results in us getting diarrhoea. A total of 25 different studies have been done which show that probiotics will help protect people from getting diarrhea when they take antibiotics. The probiotics must be taken as soon as you start the antibiotic and continue for at least one week after the end of the course of antibiotics.



Travelling to exotic countries - travelling to far flung places and eating tasty local cuisine is fun but can result in you bringing back an unwanted holiday souvenir - a tummy bug! Although three studies have shown that probiotics can reduce the chance of you getting travellers diarrhea, another three studies have shown they don't make any difference.

Therefore dietitians recommend that although you could consider taking probiotics for the entire period of your holiday, the jury is out as to whether they will definitely be of benefit.

Irritable bowel syndrome - approximately one tenth of adults in the UK have irritable bowel syndrome (IBS) and have severe diarrhoea or constipation, together with bloating. Some patients with IBS have been shown to have changes in the balance of their gut bacteria. Although the studies are often small and inconclusive, in general researchers have shown that probiotics may help to reduce symptoms of IBS, particularly bloating. Dietitians recommend that patients with IBS take probiotics for a trial period of four weeks and if they don't work to try another brand or to stop them - they won't work for everybody!



Preventing eczema in children - some children are at a high risk of developing the painful skin condition eczema (often called 'atopic eczema'). Scientists gave a probiotic to mothers when they were pregnant with a baby who was at risk of developing eczema

and then gave the same probiotic to the baby for the first six months of its life. The research study showed that this almost halved the number of children who developed eczema within four years.

Ulcerative colitis or Crohn's disease - these are both inflammatory diseases of the gut that result in severe diarrhoea and major changes to the balance of the gut bacteria. Probiotics have been shown to be very useful for patients with ulcerative colitis, particularly for helping them to stay well for longer. However, their use for patients with Crohn's disease is not as conclusive.

Prebiotics

As discussed earlier, some probiotics find it difficult to reach the gut because they are killed by acid in the stomach. One way of boosting your own natural good gut bacteria is through eating prebiotics. Prebiotics are types of carbohydrate that only our gut bacteria can feed upon.

Eating prebiotics therefore causes more good gut bacteria to grow in our gut. Sources of prebiotics in the diet include onions, garlic, asparagus, artichoke, chicory and banana.

However, in the UK we don't eat large quantities of these and so some people choose to take a prebiotic supplement such as fructo-oligosaccharide. Although some research studies have been done on the use of prebiotics, in general these are not high quality enough to enable dietitians to make specific recommendations.



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