



## PROBIOTICS – THE BENEFITS OF FRIENDLY BACTERIA

Did you know that your large bowel contains on average 2.2kg of friendly bacteria and that they communicate with 70-85% of your immune system?

Around 1.5 metres of your large bowel is lined by these friendly bacteria. The friendly bacteria make up 10 times more cells than your own body! There are 10 times more cells in your gut than there are in the whole of your body. An estimated 70-85% of your immune glands live on the outside wall of the large bowel.

### The importance of friendly bacteria

These friendly bacteria are very important.

Probiotics have held a place in history. In the Old Testament it was said that, "Abraham owed his longevity to the consumption of sour milk." And early last century, Nobel Prize winning biologist Dr Elie Metchnikoff observed that those who consumed fermented dairy had better health. I could be wrong, but I also seem to recall that Dr Metchnikoff said that "death begins in the gut".

These friendly bacteria that line your gut aid communication between the outside world and the immune system of your body. The immune system is constantly monitoring what is happening to your bacteria. If there are imbalances or overgrowths of bad bacteria, the immune system becomes activated. This can cause inflammation which then leads to problems like eczema, allergies, asthma, hay fever and even autoimmune diseases such as rheumatoid arthritis, multiple sclerosis and ankylosing spondylitis.

### Leaky gut or increased intestinal permeability

In addition, some substances in your food may filter through the large bowel cells and make contact with the immune system, which then will respond if it does not recognise this substance. Some substances brought into the body from outside may travel between the gut cells and get into contact with the immune system.

That is when the gut is said to be "leaky". Substances such as aspirin, some drugs and gluten in your diet cause leaky gut or increased intestinal permeability.

This suggests that what you eat is very important. If you eat like a caveman, you will eat the traditional human diet which has been with us for six million years. If there are substances in that diet that your six-million-year-old body does not recognise, e.g. colourings, flavourings, additives and new-to-nature molecules, gluten and dairy foods, then the immune system will be alarmed and create inflammation.

### Taking probiotics

A tremendous helper here is your ability to take live-culture friendly bacteria (probiotics) when you have eaten badly. Probiotics will help you when you've had a gastrointestinal upset or are anticipating it.

Probiotics are a live culture of bacteria that can be alone or in a dairy product. They benefit the person taking it by contributing to the balance of the bacteria in the intestines. Probiotics mainly consist of lacto-bacillus acidophilus and bifidobacteria.

However, these days there are many different types of probiotic bacteria that are used for specific situations, e.g. if you have a lot of irritable bowel syndrome (abdominal bloating, diarrhoea, constipation and abdominal pain) then you are more likely to be benefited by lacto-bacillus plantarum. If you have hay fever and allergy, then you might want one of the lactobacillus rhamnosus strains.

The probiotics you see in live culture in yoghurt and at the supermarket are not nearly as powerful as the other type – the professional probiotic that has far more millions of bacteria and are freeze dried. These are found at pharmacies and health shops and from some health practitioners such as naturopaths, doctors, etc.

## **What probiotics can do for you**

It is scientifically proven that probiotics:

- Reduce diarrhoea from antibiotics, rotavirus, salmonella, chemotherapy and traveller's diarrhoea.
- Help to balance gut flora and reduce overgrowth of candida yeasts.
- Stimulate the immune system in a positive way.
- Reduce inflammation generally.
- Reduce allergy symptoms, including eczema and hay fever.
- Relieve irritable bowel syndrome symptoms.
- Help fight vaginal infections and urinary tract infections.
- Specific probiotics reduce relapses of ulcerative colitis and Crohn's disease, an autoimmune inflammatory bowel disease.
- Reduce dental caries in children who have had it in their daily milk.
- Help with constipation.

Future research is hoping to confirm the following:

- Reduction of helicobacter pylori which causes stomach ulcers and stomach cancer.
- General cancer reduction.
- Cholesterol reduction and reduction of heart attack.
- Use for bacterial infection when antibiotics have failed – called microbial interference therapy.

In the future we may even see probiotics in ice cream!

## **Advice on taking probiotics**

My general advice to you would be the following:

- If you eat yoghurt, you should prefer the ones containing live culture.
- Keep some professional probiotics at home in the refrigerator for when you need it, e.g. in case of diarrhoea, vaginal infections or urinary tract infections.
- Taking probiotics while in hospital reduces the risk of hospital acquired diarrhoea.

- If you are pregnant and there is a lot of allergy in your family, take professional probiotics for four weeks before you have your baby and then give them to your baby for six months.
- In particular, if you have had a baby by Caesarean section, give the baby professional probiotics after birth. It will help establish the baby's healthy gut flora which would normally have been gained through a vaginal delivery.
- If the baby is premature and of low birth weight, probiotics can help reduce problems.
- If your child is in daycare, a daily probiotic will reduce infections and ill health.

It is not proven yet that taking probiotics daily is necessarily helpful, but it certainly is not harmful. People with many of the conditions mentioned above could benefit from a daily probiotic. However, probiotics should not replace a healthy diet and lifestyle.