



PROBIOTICS

DENES PROBIOTIC+ POWDER

FACT SHEET 24

THE BENEFITS OF PROBIOTICS

The word probiotic literally means "for life". These safe, natural supplements are widely used to help with a variety of short and long-term bowel problems, such as diarrhoea, colitis and inflammatory bowel disease (IBD), as well as some general health problems. Probiotics help by restoring, maintaining and supporting the growth of those bacteria within the bowel that are beneficial to health. Probiotics also have a number of other positive effects.

BACTERIA and the BOWEL

All animals have friendly bacteria living within their small and large intestine. These bacteria contribute to the functioning of the bowel and are important for supporting good general health, as they help maintain resistance against disease by influencing the immune system. Additionally, they also play a role in assisting the digestion and assimilation of food.

To initially colonise their bowel, new-born animals acquire normal bacteria shortly after birth from their mother and from their surrounding environment. These bacteria are essential to the new-born animal, particularly in relation to the health of the bowel and in promoting resistance against those harmful bacteria likely to cause digestive upsets. Puppies and kittens that fail to develop the right levels of bacteria at this critical early stage are likely to become ill or sickly and will probably develop diarrhoea.

Based upon this knowledge, probiotics were formulated to harness the health benefits offered by those bacteria that naturally inhabit the bowel. It was found that they could be used to treat a wide variety of common health problems in animals of all ages, particularly those conditions related to the digestive system, such as diarrhoea, colitis and malabsorption. It was also found that regular use of probiotics could improve general health.

WHAT IS IN DENES PROBIOTIC+ POWDER?

Denes Probiotic+ Powder contains a strain of bacteria which has been recognised as being useful to dogs and which is known to remain stable during storage and which has been approved by the EU:

- *Enterococcus faecium* DCM10663/NCIMB 10415 (dogs)

This species grows very rapidly in the gut, competing for space with any harmful bacteria and effectively crowding them out.

Each gram dose of **Denes Probiotic+ Powder** contains approximately 2×10^8 cfu (colony forming units) of viable bacteria.

Freeze-drying preserves the bacteria, which are then combined with **Pectin** (a source of fibre), **Garlic**, a prebiotic called **Fructo-Oligosaccharides (FOS)** and Dextrose as a bulking agent.

Pectin is an excellent source of natural fibre. In the large intestine, pectin is broken down into short chain fatty acids. These substances help in the metabolism and support of the cells that line the large intestine. Pectin also encourages the growth of lactobacilli, bacteria which are known to be important for the health of the bowel.

Garlic has antibacterial and antifungal properties. It is added to encourage the growth of beneficial bacteria in the bowel and to prevent the colonisation of the bowel by undesirable and potentially pathogenic bacteria.

FOS, Fructo-Oligosaccharide is a type of prebiotic fibre which enhances and supports the growth of beneficial probiotic bacteria, particularly in the colon. In addition there are a number of other health benefits from using a prebiotic such as FOS. In the gut FOS is broken down into short-chain fatty acids, particularly butyrate, which is the 'fuel' of the colon. By increasing butyrate levels, FOS helps maintain the health of the mucous membranes lining the intestines. Butyrate also tends to reduce the pH of the colon which helps keep the colon in a healthy state.

A number of studies have also demonstrated the beneficial effect of using FOS on the immune system, acting both by strengthening the intestinal barrier and by reducing the levels of potentially pathogenic bacteria in the gut interior. By modulating the levels of bacteria in the bowel and by supporting their growth, adding FOS could potentially have a major effect on resistance to diseases such as cancer or help prevent inflammatory disorders such as IBD.

HOW PROBIOTICS WORK

Denes Probiotic+ Powder is easily added to the food. Once in the digestive system, the friendly bacteria start to multiply, suppressing the growth of unhealthy, undesirable or pathogenic bacteria. Gradually, any harmful bacteria are crowded out as the friendly bacteria latch onto the lining of the bowel in areas where pathogenic bacteria would normally attach and multiply. They also compete for common nutrients, again reducing the chances of unwanted bacteria multiplying.

Friendly bacteria are also known to have a number of other beneficial effects, such as reducing intestinal pH, thereby creating unfavourable conditions for the growth of unwanted bacteria. They also produce certain compounds, amongst which are fatty acids and hydrogen peroxide, which interfere with the development of some types of pathogenic bacteria.

Probiotics are also known to produce anti-microbial substances and have been shown to improve immunity by stimulating some of the cells responsible for combating bacteria and viruses. Specifically, probiotics have been shown to increase the activity of cells responsible for mopping up micro-organisms and to increase the levels of certain types of antibodies, both in the blood and in the bowel.

Additional benefits include the synthesis of vitamins B and K, both vital for health, the production of mucus in the bowel (which has a protective effect on the lining) and an increase in the ability of the lining of the gut to repair itself.

HOW PROBIOTICS AFFECT GENERAL HEALTH

It is not surprising to find that probiotics will have an effect on general health. They act not only by encouraging the growth of good bacteria within the bowel and by suppressing those that are not good for health, but also by enhancing the immune system. This delicate bacterial balance can be easily upset, leading to ill health and digestive upsets.

WHEN TO USE PROBIOTICS

Probiotics are safe to use on a day to day basis, as a way of preventing potential problems, or they can be used as needed, particularly when animals are likely to be stressed. Ideal situations in which to use **Denes Probiotic+ Powder** include:

- After the use of antibiotics
- During recovery from illness
- After worming
- During and after a stay in a boarding kennel or cattery
- During weaning
- When the diet is changed
- Following travel
- Following surgery
- As a tonic for elderly animals
- Chronic ill health
- Where the digestion is weak

You can also use probiotics to help with some more specific problems:

- Diarrhoea, for both acute and chronic cases
- Colitis, both acute and chronic cases
- Inflammatory bowel disease (IBD)
- Malabsorption syndrome
- Pancreatic disease
- Bloat prevention

Denes Probiotic+ Powder will work alongside other Denes products such as our **Garlic Oil Capsules, Milk Thistle+ Powder** and **Digestion+ Powder, Denes Aloe Vera** or conventional medicines.

Other useful Denes fact sheets:

- Pancreatic disease
- Colitis and diarrhoea
- Inflammatory Bowel Disease
- Bloat
- Garlic
- Aloe vera

If you have any queries concerning your pet's health or feeding problems, you can contact us for free pet care advice by:

- Visiting our website www.denes.com
- Emailing us at info@denes.com
- Calling us on **01273 325364** Mon-Fri, 9am – 12Noon
- Writing to us at:
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