

Short answer questions

[History](#)



Probiotics and Gastrointestinal Diseases

Probiotics and Gastrointestinal Diseases Introduction

Probiotics

In 1989 Probiotic was first time used as a scientific term by Ray Fuller later Tissier identified the bifidobacteria in 1899 and used it for the treatment of diarrhea (Mary Ellen Sanders, 2010). Probiotic is a combination of two Greek words; Pro-promoting and Biotic-life (Betty Kovacs, 2012). In October 2001, Evaluation of Health and Nutritional Properties of Probiotics in Food held in Argentina, there The Food and Agriculture Organization of the United Nations (FAO) briefly defined Probiotics as “ The living organisms (mainly bacteria) which when consumed in a sufficient quantity bestow a health advantage on the host” (FAO, 2001). Microbes are found to have healthy effects on humans and there are multiple benefits attached to the consumption of Probiotic Microbes; for instance, they improve the functioning of digestive system, reduce the side effects of antibiotics and risk of acute infectious diseases, improve the absorption of lactose and develop immunity (California Dairy Research Foundation, 2011).

Gastrointestinal Diseases

The Human Digestive System is made up of Gastrointestinal Tract which is composed of organs including Oesophagus; from where the food travels to the Stomach; here food undergoes the effect of several enzymes and acids which further break down the food particles. Then it comes to Small intestine; where further digestion takes place and the digested material enters the blood stream. Undigested food is moved to the Large intestine where water is absorbed and then the food is expelled out of the body through anus. Any disturbance in this process leads to Gastrointestinal

Diseases (Nutricia, 2010).

Probiotics have the ability to manipulate the intestinal physiology by direct or indirect intonation of immune system or endogenous ecosystem; therefore they can be used for the treatment of gastrointestinal diseases (Philippe R. Marteau et al., 2001). There are significant evidences which suggest that Probiotics are beneficial for the treatment gastrointestinal tract including chronic inflammatory diseases (Eamonn P Culligan et al., 2009). Following are the three gastrointestinal diseases which can be treated by Probiotics:

Diarrheal Diseases

Diarrhea as defined by the World Health Organization is the condition in which 3 or more loose stools are excreted in every 24 hours. It is caused by virus and parasitic organisms. A person usually gets infected with diarrhea due to the consumption of contaminated food or drink. If not treated on time; it might lead to severe fluid loss in addition to the loss of other body minerals (WHO, 2013). Probiotics are found to be effective in early recovery of diarrhea. A study was conducted with 230 children; double-blind randomized placebo-controlled trial was done with the help of probiotic formulation . This resulted in significant decrease in stool frequency and need for ORS (oral rehydration salts) (Dubey AP et al., 2008)

Ulcerative Colitis

It is also known as Inflammatory Bowel Disease. In this disease the inside layer of large intestine (also known as colon or bowel) and rectum which is next to large intestine becomes inflamed. The infection does not reach to small intestine. It is more common among the people of age 15-40 and has equal effect on both the genders. It may develop due to the interaction of <https://assignbuster.com/short-answer-questions-essay-samples-3/>

several viruses and bacteria existing in the environment or genes. Smokers have greater risk of infection as compared to non smokers (Ulcerative Colitis, 2012). To identify the role of Probiotics in curing Ulcerative Colitis an experiment was conducted in which patients were given sulphasalazine (SASP) and glucocorticoid. They were then examined for bifid triple viable capsule (BIFICO). The Probiotics were found to decrease the activation of NF-kappaB suggesting the effectiveness of oral intake of the new Probiotics (Cui HH et al., 2004).

Crohn's Disease

It is another Inflammatory Bowel Disease. It causes chronic inflammation in any part of the digestive tract which is followed by pain, weight loss and diarrhea. Bleeding from rectum is also a common symptom of this disease. It is comparatively difficult to diagnose it in the early stage which leads to delayed treatment. It might also lead to Anaemia (Crohn's Disease, (2012). Current studies suggest that *Faecalibacterium prausnitzii* can be used as a probiotic for the treatment of Crohn's Disease. The bacterium was found reducing the inflammatory effects of the disease (Sokol H, 2008). However, more research is required to further identify the effectiveness of probiotics in curing Crohn's Disease (Eamonn P Culligan et al., 2009).

Conclusion

The above description reflects that Probiotics are found to be beneficial in the treatment of several gastrointestinal diseases. These living bacteria are especially useful in treating Diarrhea, Ulcerative Colitis and Crohn's Disease. However, more evidences are required to further analyze the curing abilities of probiotics.

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