
Abstract: The word “probiotic bacteria” which also known as good bacteria, friendly bacteria or beneficial bacteria refers to the live bacterial organisms which live and work in our digestive tracts and provide us health benefits. The substances that contain microorganism or bacteria that are beneficial to the host are known as “Probiotics”. Most of the probiotic strains belong to lactobacilli and bifidobacteria. These two have many strains and some newer strains are under research. On the other hand “prebiotics” are non-digestible food ingredients that stimulates the growth and/or activity of bacteria in the digestive system in way claimed to be beneficial to health. They are first identified and named by Marcel Roberfroid in 1995. Roberfroid offered a refined definition in the 2007 journal of nutrition stating “A prebiotic is a selectively fermented ingredient that allows specific changes, both in the composition and/or activity in the gastrointestinal micro flora that confers upon host well being and health”. “Synbiotic” refers to nutritional supplements combining probiotic and prebiotic in a form of synergism, hence synbiotic. The combinational use of probiotic and prebiotic is often described as synbiotic. Synbiotic has a great importance in the micro flora management procedure. In Japan, certain foods including probiotics and prebiotics have been approved as the Food for Specified Health Uses (FOSHU) by the Japanese government. Probiotics and probiotics individually have a great significance in human health. The proposed mechanism of action of probiotics include the improvement of disrupted intestinal micro flora in compromised hosts. They are also effective in reducing Antibiotic-associated diarrhea (AAD), blood pressure, colon cancer, lactose intolerance, Helicobacter pylori, cholesterol and many other diseases. This article provides an overview about probiotics, probiotic bacterial strains, prebiotics, their importance and how they combinationally play important role in human health.

Key words: Prebiotics, Probiotics, Synbiotic, Human health, AAD.