

## **BIFIDUM- AND LACTOBACTERIA IN EUBIOTICS, BIOYOGURT AND YOGURT**

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Microbial ecosystem of human's intestine can be disbalanced by wide range of factors: administration of antibiotics and other drugs, alcohol abuse, stress, diseases, toxic substances, and even the use of antibacterial soap. Probiotic bacterial cultures (usually bifidobacteria and lactobacilli) are intended to help the body restore impaired intestinal flora and are able to show antagonism against pathogenic and opportunistic microbes. Bifidobacteria synthesize vitamins B (B1, B2, B12, folic acid), vitamin C, essential amino acids. Lactobacteria are non-pathogenic Gram-positive large rods. They are always present in the vagina and digestive tract.

The aim of the study is determination of initial bifido and lactobacteria strains growth properties in commercial preparations and dairy products. Probiotic "Yogurt" of Pharma science, spoon yogurts "Activia classic", "Rastyshka", and kefir were investigated.

Study results. The number of lactic bacteria in "Yogurt" was  $10^2$  CFU/g, lactic streptococci –  $10^3$  CFU/g, whereas according to the manufacturer it should be at least  $10^8$  CFU/g.

Dairy products "Activia" should contain a special strain of bacteria Bifidobacterium ActiRegularis® in an amount of  $10^8$  CFU/g. In our experiment the number bifidobacteria was  $10^6$  CFU/g, lactobacteria -  $10^7$  CFU/g, lactic streptococcus -  $10^8$  CFU/g. The same results were obtained for spoon yogurt "Rastyshka" with strawberry taste. Kefirs TM "Romol" and "Zarechie" contained lactic streptococci in the amount of  $10^3$  CFU/g.

Conclusions. Probiotics are recommended by physicians and more often nutritionists after course of antibiotics or as a part of fungal diseases treatment. However, single dose of probiotics may not contain the same number of viable microbial cells as claimed by manufacture (according to the instructions, 1 dose of preparation should contain not less than 1 billion of viable lactobacteria). In our opinion, this can lead to their ineffective actions. In some cases the quality of dairy products is controversial as they can actually contain inadequate number of certain microorganisms. However, even taking into consideration this fact, based on the results of our research it is more efficient to use probiotics present in natural sources, such as yogurt, kefir, sauerkraut, in management of the abovementioned conditions.