

EFFECTS OF PROBIOTICS ON THE CHOLESTEROL LEVEL IN BLOOD

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Cardiovascular disease - the main cause of death and disability among the population, causing the greatest social and economic losses . The most common and significant causes are high blood pressure and elevated cholesterol levels (Cholesterol - lipid is present in the blood and most tissues of the human body, especially in the nervous tissue.).

In recent years, accumulated a significant amount of data that resident and transient flora host, synthesizing, transforming or destroying exogenous and endogenous sterols actively involved in cholesterol metabolism. This allows us to consider as the most important host microflora and metabolic regulator involved in cooperation with host cells in maintaining cholesterol homeostasis.

The analysis of literature data about biologically active compounds produced by probiotic microorganisms showed that hitherto biotechnological potential of anaerobic microorganisms of bifidobacteria, lactobacilli and propionic acid is almost never used. Lactobacills long time attracted the attention of biotechnologists in view of their potential significance for the preservation of health, prevention and treatment of many diseases.

An increasing number of publications about the ability of certain strains of lactobacilli exhibit hypocholesterolemic effect. Numerous clinical studies have shown a positive effect in reducing the cholesterol level in blood serum by the probiotics consisting of following bacteria: *Lactobacillus fermentum*, *Lactobacillus reuteri*, *Lactobacillus rhamnosus*, *Lactobacillus plantarum*, *Lactobacillus bulgaricus*, *Lactobacillus brevis*, *Lactobacillus casei*, *Lactobacillus gasseri*, *Bifidumbacterium bifidum*, *Bifidumbacterium lactis*, *Bifidumbacterium longum*, *Streptococcus thermophilus*.

Relevance of research in the field of microbial ecology, the study of cholesterol metabolism probiotic microorganisms determined by the necessity of creating bio mass consumption to maintain and preserve the health of the population who make a worthy competition medicines. On the basis of the above, at the Department of Biotechnology National University of Pharmacy study the effect of some probiotics on cholesterol levels in the blood serum, and possibility of use for these purpose functional foods are planned, that testify to consider this approach as a promising alternative direction of the hypercholesterolemia pharmacological treatment.