

Lactic Acid Bacteria in Kimchi Reduce Cholesterol in Blood

27 November 2018 | News

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Prof. Young-Jun Kim's research team, at the Department of Food and Biotechnology at Korea University, which is one of the research teams in World Institute of Kimchi in Korea, studied three mouse groups fed with a high-cholesterol diet (one group was fed saline; the second group had a daily intake of 0.1 billion cells of *Lactobacillus plantarum* LRCC 5273 isolated from kimchi; and the third group had a daily intake of 0.1 billion cells of *Lactobacillus plantarum* LRCC 5279 isolated from kimchi).

They compared the blood cholesterol levels of these 3 groups and 1 control group fed with normal feed after 6 weeks. The results showed that the total cholesterol and LDL cholesterol in the blood were reduced, and the cholesterol in feces was increased in mice that were fed with a diet containing LRCC 5273. The increased levels of fecal cholesterol indicated that a greater amount of cholesterol was discharged.

The research team explained that *Lactobacillus plantarum* LRCC 5273 isolated from kimchi increased the release of cholesterol in feces and stimulated the excretion of bile acid in the small intestine. This was thought to reduce blood cholesterol, ultimately improving the health of blood vessels.

Among the lactic acid bacteria isolated from kimchi, the effect of blood cholesterol reduction varied depending on the bacterial species. The blood cholesterol reduction effect of LRCC 5273 was higher than that of LRCC 5279.

Dr. Jaeho Ha, a general director of World Institute of Kimchi, explained,"Kimchi reduces the amount of blood cholesterol and decomposes blood clots that form as a result of blood coagulation." He added, "The cholesterol reduction effect is much higher in aged kimchi than in freshly made kimchi."