

Fermented milk made by *Lactococcus lactis* H61 improves skin of healthy young women

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There has been much interest in the potential for using probiotic bacteria for treating skin diseases and other disorders. Japanese researchers have now found that milk that has been fermented using a probiotic dairy starter can also benefit the skin of young healthy women, reports the *Journal of Dairy Science*.

Probiotics have been defined by the Food and Agriculture Organization-World Health Organization as "live microorganisms which, when administered in adequate amounts, confer a health benefit to the host."

"Although many reports have addressed the effect of [lactic acid bacteria](#) on skin properties in subjects with [skin diseases](#), such as atopic dermatitis, few studies have involved healthy humans," explains lead investigator Hiromi Kimoto-Nira, PhD, of the National Agriculture and Food Research Organization (NARO) Institute of Livestock and Grassland Science (NILGS), Tsukuba, Japan.

The investigators conducted a randomized double-blind trial to evaluate the effects of fermented [milk](#) produced using *Lactococcus lactis* strain H61 as a starter bacterium (H61-fermented milk) on the general health and various skin properties of young women. Strain H61 has been widely used over the last 50 years in Japan to produce fermented dairy products.

Twenty-three healthy young women 19- 21 years of age received either H61-fermented milk or conventional yogurt for four weeks. Blood samples were taken before and at the end of the four-week period, and skin hydration (inner forearms and cheek) and melanin content, elasticity, and sebum content (cheek only) were measured.

After four weeks, skin hydration was higher in both groups. Sebum content in the cheek rose significantly in the H61-fermented milk group, but not in the conventional yogurt group. Other skin

parameters did not differ in either group, although differences exist for season and skin index.

"Season-associated effects are an important factor in skin condition," says Kimoto-Nira. "Skin disorders such as psoriasis and senile xerosis tend to exacerbate in winter. Melanin provides varying degrees of brown coloration at the [skin](#) surface, and melanin content is affected by internal and external factors, such as age, race, and sunlight exposure."

Blood count and serum biochemical parameters remained similar and were within normal ranges. The change in oxidative status was the same regardless of yogurt or fermented milk consumption.

"Our study enhances the value of strain H61 as an effective probiotic dairy starter," concludes Kimoto-Nira.

More information: "Effects of ingesting milk fermented by *Lactococcus lactis* H61 on skin health in young women: A randomized double-blind study," by H. Kimoto-Nira, Y. Nagakura, C. Kodama, T. Shimizu, M. Okuta, K. Sasaki, N. Koikawa, K. Sakuraba, C. Suzuki, and Y. Suzuki. *Journal of Dairy Science*, Volume 97/Issue 9, [DOI: 10.3168/jds.2014-7980](#)

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