

Kim, H.S., & Gilliland, S. E., (1983). *Lactobacillus acidophilus* as a Dietary Adjunct for Milk to Aid Lactose Digestion in Humans. Journal of Dairy Science, 66, 959-966.

Abstract

The effect of *Lactobacillus acidophilus* on lactose utilization of humans was determined by comparing the amount of hydrogen excreted in their breath after consuming milk containing either 0, 2.5×10^6 , 2.5×10^7 , or 2.5×10^8 *Lactobacillus acidophilus*/ml daily for 6 days. Consumption of milk without cells of *Lactobacillus acidophilus* for 1 wk did not affect lactose utilization. Milk containing either 2.5×10^6 or 2.5×10^8 *Lactobacillus acidophilus*/ml improved lactose utilization. However, consumption of milk containing an intermediate 2.5×10^7 /ml did not improve utilization based on comparison of group means before and after consuming the test milk. The lack of a significant effect for the latter group of test subjects was probably due to large increases of excrete hydrogen on day 7 as compared to day 0 by two of the six test subjects. The beneficial effect of *Lactobacillus acidophilus* was immediate and did not require that milk be consumed daily. Improved digestion of lactose was not due to hydrolysis of the lactose prior to consumption, which indicated that the beneficial effect must have occurred in the digestive tract after consumption of milk containing *L. acidophilus*.