

Goldin, B.R., & Gorbach, S.L., (1984). The effect of milk and lactobacillus feeding on human intestinal bacterial enzyme activity. The American Journal of Clinical Nutrition, 39, 756-761.

Abstract

Twenty-one subjects were recruited for a study designed to investigate the effect of oral supplements of *Lactobacillus acidophilus* on fecal bacterial enzyme activity. Three bacterial enzymes were assayed: β -glucuronidase, nitroreductase, and azoreductase. These fecal enzymes can catalyze procarcinogens conversion to a proximal carcinogen. The sequence of feeding studies and fecal enzyme assays was the same for all subjects: 4 wk of a control period; 4 wk of plain milk feeding; 4 wk of control, without any dietary supplements; 4 wk of milk containing 2×10^6 per ml viable *L. acidophilus*; and a 4 wk of control, without any supplements. The concentration of viable lactobacilli simulates that found in acidophilus supplemented milk. Reduction of 2- to 4-fold in the activities of the three fecal enzymes were observed only during the period of lactobacilli feeding. These changes were noted in all subjects and were highly significant ($p < 0.02$ to 0.001). During the final control period, after lactobacilli feeding, fecal enzyme levels returned to normal after 4 wk.