

ICR Study Papers

< [Previous Page](#)



[Print Page](#)

| [Bookmark Page \(Ctrl+D\)](#)

| [Close Window](#)



Bovine colostrum supplementation enhances physical performance on maximal exercise tests

J. Leppäluoto*, S. Rasi, V. Martikkala, & M. Puukka

Department of Physiology, University of Oulu, Department of Sports Medicine, Oulu Deaconess Institute and Laboratory of Oulu University Hospital, Finland

< [ICR Homepage](#)

< [More Studies](#)

We studied the effects of a food supplement made from bovine colostrum on maximal oxygen uptake and flight times in jump tests in 10 young athletes, seven females and three males, in a double blind cross-over design. Defatted and decaseinated bovine colostrum (400 ml daily) or placebo were administered for 12 days and maximal ergospirometer and jump tests were performed on days 11 and 12. In the placebo group the maximal oxygen uptake on day 12 was 7 % smaller than on day 11, whereas in the colostrum group it did not change. Similarly, in the placebo group the mean flight time in the counter movement jump was 9 ms and in the squat jump 0 ms shorter on day 12 than on day 11.

In the colostrum group the flight time in the counter movement group was 4 ms and in the squat jump 10 ms longer on day 12 than on day 11. Thus colostrum improved significantly the oxygen uptake ($p < 0.01$) and the flight times ($p < 0.05$) in the maximal ergometer and jump tests performed a day apart. There were no significant changes in the serum concentrations of IGF-1, growth hormone, testosterone, total LDL or HDL cholesterol, ALAT, ASAT, creatine kinase, carboanhydrase III, myoglobin, interleukin-6 or blood cells measured on day 12 between the placebo and colostrum groups.

The present results demonstrate that colostral supplementation in young athletes improves running and jumping performance, when the physical performance is restrained by a previous maximal training bout.

Therefore the use of colostral supplementation is beneficial during heavy training periods in athletes.

< [ICR Homepage](#)

[Back to Top](#)