Chocolate Milk as a Post-Climbing Recovery Aid

Belinda Fuller - Abstract

The study investigated the influence of chocolate milk consumption, in comparison to water, on human physiology and climbing performance, following an exhaustive bout of high intensity endurance climbing. The use of a treadwall enabled a continuous fixed route to be climbed until participants reached exhaustion. Heart rate and rate of perceived exertion were recorded every minute throughout the test, blood lactate samples were taken (measured in mmol.L\(^{-1}\)) pre and post-climbing and each participant’s level of DOMS were recorded for three days post-exercise. Distance climbed and duration on the wall was the measure to be used as the performance variable; the greater the distance covered, the better the performance. A superior performance was found after the consumption of chocolate milk, with a significant interaction found for distance \((F(1,9)=11.704, p=0.008)\) and duration \((F(1,9)=10.922, p=0.009)\). A significant decrease in level of DOMS was found three days after exercise following chocolate milk \((t(8)=3.773, p=0.005)\); a decrease was not present after the consumption of water. This suggests that after the consumption of chocolate milk, participants were able to climb significantly further, for longer and report a decrease in muscle soreness after exercise, in comparison to water. Potential future research should expand on this study; compare the drink „For Goodness Shakes!” to other chocolate milk brands, as well as comparing chocolate milk to isotonic drinks. Different climbing disciplines could be explored using participants from a larger sample group of varying fitness levels, gender and age.

KEY WORDS: Climbing, chocolate milk, recovery, performance.