ABSTRACT

Influence Of Supplementation Vitamin B1 To Total Performance Time In The Wall Climbing

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Wall climbing is a sport that requires strength and power, as well as courage, calmness, flexibility, and proper technique. In the wall climbing with speed category, energy source used is dominant aerobically, the range time is 4 - 7 minutes, so the source of energy used is aerobic glycolysis. Vitamin B1 (Thiamine) can be useful for lack of energy symptoms and helping the produce energy in the body. In the metabolism of carbohydrates, thiamine role is binding phosphate group from ATP to forming coenzyme thiamine pirofosfat (TPP). The purpose of this study was to determine the vitamin B1 supplementation before exercise can reduce total performance time in the climbing wall athletes. The research design is experimental research with the posttest-only control group design. Sample is 26 students from FIK UNM, male, BMI is 20 ± 1, samples divided into 2 groups: group 1 (K1) and group 2 (K2). In the first week, K1 given by placebo and the second weeks is given with vitamin B1. And the second group (K2), first week was given by vitamin B1 and placebo in the second week. The results of this study illustrate a decrease in total performance time in group 1 (K1), from 304.38 seconds in the first week to 287.54 seconds into the second week. In group 2, there was an increase in the total performance time with 296.46 seconds to 305.85 seconds. The conclusion is Vitamin B1 can affect total performance time in the wall climbing sports.

Key words: Wall Climbing, Vitamin B1, Total Performance Time