ABSTRACT

TITLE:	The Effects of Different Energy Sources on Performance in the Multistage Fitness Test
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ABSTRACT: Most athletes typically like to have a snack during competition to give them an energy boost. Do they really know if what they are consuming is beneficial to them or not? The media promotes CLIF bars and other supplement bars as such a reliable source of energy during competition/training. This study examined the effects of three different energy sources on the results of the Multistage Fitness Test (MFT) with female collegiate athletes. The energy sources used were Snickers, Crunchy Peanut Butter CLIF bar, and water. These energy sources were chosen based on popularity and the differences in availability. Water is readily available and free and the Snickers is less expensive than the CLIF bar. The media promotes all three of these to enhance athletic performance. It was hypothesized that the Snickers would be more beneficial to performance based on the macronutrient factor of the bars. Snickers and CLIF bars were selected because they are equal in calories (250kcals) and similar carbohydrate content (11% and 14% respectively). The bars varied in fat and protein composition with the Snickers being higher in fat and the CLIF bar being higher in protein (Snickers: 18% fat, 8% protein, CLIF bar: 9% fat, 22% protein). Twnety-one female athletes from the Fort Lewis College softball, volleyball, and lacrosse teams participated in this study. Each was given a predetermined energy source 60 minutes prior to each performance test; there were a total of four testing sessions approximately one week apart. Their scores were recorded based on the level/sublevel they reached during each test. A repeated measures ANOVA was used with these scores. There was no statistical significance observed between the three energy sources and the MFT scores ($p>0.05$). Despite no significance, there was a trend towards a higher MFT score for Snickers consumption. Based on these findings, female athletes can be advised that there is no measurable advantage to consuming CLIF bars 60 minutes prior to complete high intensity exercise lasting less than 8 minutes.