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Research Abstract

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The Effect of Glycemic Index on Athletic Performance

Background: We as human beings have a natural need and want for food, and we have been taught all of our lives what we need to watch what we eat by eating more whole grain foods, greens, fruits, and lean meats while avoiding high-sugar foods. The reason behind this is these high-sugar foods, such as ice cream or chocolate, can have a significant effect on the body based on its glycemic index (GI). How fast the glucose is absorbed in the body is based off the glycemic index, lower GI foods absorb slowly and do not tend to over work the pancreas unlike high GI foods, which tend to lead to hyperinsulemia (the overage of insulin in the bloodstream.) The question we have is, how does this effect athletic performance and what type of intensity scaling/choice of exercise gives the best results?

Objective: The objective of our research is to seek to better understand the effects of low-GI and high-GI foods effect the performance of athletes during training through analyzing past research and basing their results into a more broad conclusion. The areas we want to focus in are energy availability during exercise bouts, cognitive functioning and physiological effects on the body between the two, and answering the question of which is best for improving overall performance. This can consist of the one's ability to recover and perform with specific exercises and comparing low and high GI index within the same exercises.