Post-Workout Recovery and Supplementation in Collegiate Athletes

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Abstract

Post-workout recovery and supplementation is important for collegiate athletes. It ensures that energy lost during training, or competition, can be replaced properly. The needs of different collegiate athletes will vary by a given number of factors: age, gender, weight, body type, and genetic predispositions including allergies. Not only will these factors determine the amount of that need to be restored, but the sport and position the collegiate athlete competes in will contribute to these energy needs.

Protein

The Academy of Nutrition and Dietetics recommends 1.2 to 2.0 grams per kilogram of bodyweight and the timing of ingestion should be spread out throughout the day. The International Society of Sports Nutrition (ISSN) recommends a range from 1.4 to 2.0 grams per kilogram of bodyweight. The exact amount of protein needed after training will vary from athlete to athlete, depending on their weight, training frequency, and training duration.

Introduction

Whether the collegiate athlete is a football player or a cross-country runner, they have specific, individualized needs related to nutrition. Post-workout nutrition and supplementation for collegiate athletes involves meeting the demands for both of these athletes and the demands others. Some athletes will intentionally receive an inadequate energy intake if their sport demands, such as in wrestling where they are categorized by weight-class. The post-workout recovery includes the intake of protein, carbohydrates, and fat.

Carbohydrates

The post training recommendations for carbohydrate intake are anywhere from 5 to 12 grams per kilogram of bodyweight. Collegiate athletes performing aerobic endurance training lasting 90 minutes or more at moderate intensity should consume around 8 to 10 grams of carbohydrates per kilogram of bodyweight. Collegiate athletes participating in strength and sprint-based sports should aim to consume 5 to 6 grams of carbohydrates per kilogram of bodyweight

Methods

Various databases were used, starting with the Tennessee Technological University Volpe Library Database. From the library database several scientific databases, PubMed, EatRight, and the National Strength and Conditioning Association, were used for finding articles and data that were relevant to post-workout recovery and supplementation. The books, articles, and journals discussed the importance of dietary intake and hydration status specifically in collegiate athletes.

Fat

While fat does not specifically benefit post-workout training, it does not interfere with the absorption of protein and carbohydrates or muscle glycogen synthesis.

Reference List

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