



Evaluation of Nutritional Status and Needs of Collegiate Women's Lacrosse Athletes: A Review of Literature

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Abstract

The purpose of this literature review is to highlight the lack of nutrition knowledge and education opportunities for collegiate women's lacrosse athletes. An adequate intake of energy or calories, protein, and carbohydrates, helps contribute to an athlete's success on and off the field. The studies in this review of literature analyzed nutrient status, energy intake, and perceptions of energy and macronutrient intake of various collegiate level female lacrosse athletes throughout the season or different training phases. The methods used in these studies to collect data include recording dietary intake, measuring physical activity levels using an activity monitor worn by the athletes, and testing body composition. All of these methods showed that collegiate women's lacrosse players eat significantly less than recommended values for both macronutrients and caloric needs as a whole. These athletes do not reach optimal nutrient status to achieve peak athletic performance. This review is significant because it highlights a need for better nutrition education and resources for women's lacrosse players as well as the coaches, athletic trainers, and other athletic department staff they will interact with and learn from throughout their college experience.

Research Questions

- ❖ What are the nutritional needs of collegiate women's lacrosse players?
- ❖ Are collegiate women's lacrosse players consuming enough calories per day?
- ❖ What level of nutritional knowledge do collegiate women's lacrosse players possess?
- ❖ How beneficial is nutrition education intervention for female athletes?

Methods

- ❖ All articles were individually analyzed and summarized, then combined to make this review of literature.
- ❖ **Keywords:** nutritional status, nutrition education, nutritional needs, women's lacrosse players, female athletes

Future Research

The amount of research on nutritional status, needs and knowledge of collegiate women's lacrosse players is incredibly limited. Future research needs to be conducted to analyze the benefits of increased nutrition education intervention across all collegiate women's lacrosse teams and players. Also, more research needs to be conducted on female athletes in general in order to bring awareness to nutritional concerns such as lack of knowledge and education as well as not meeting basic nutritional needs.

Review

Articles	Purpose	Conclusion
Nutrient Status and Perceptions of Energy and Macronutrient Intake in a Group of Collegiate Female Lacrosse Athletes	The purpose of this study was to compare nutritional intake levels and needs against the nutritional recommendations from the International Society of Sports Nutrition (ISSN) amongst female lacrosse players. Many athletes find it difficult to achieve the recommended amount of calories.	The female lacrosse players consumed less than the recommended values for caloric and macronutrients needs. Collegiate athletes may lack basic nutritional knowledge which can be seen through their lack of caloric consumption.
Energy Status and Body Composition Across a Collegiate Women's Lacrosse Season	Researchers aimed to document energy balance, expenditure, and body composition for women's lacrosse athletes during their lacrosse season.	Across the whole lacrosse season, body weight did not change, and body fat decreased slightly across the academic year. Resting metabolic rate increased while energy intake decreased at the end of the year trending towards a more negative energy balance. This study helps to provide insight on how female lacrosse players consume calories and identify their energy requirements.
Dietary Intake and Energy Expenditure During Two Different Phases of Athletic Training in Female Collegiate Lacrosse Players	The goal of this study was to investigate nutritional intake and energy expenditures amongst different training phases in female lacrosse players. Researchers aimed to find if female lacrosse athletes obtain optimal nutrient intake for peak athletic performance.	The daily expenditure of energy increased in the preparatory phase, however, there was no difference in the total energy intake evaluated. Macronutrients stayed constant with carbohydrate and protein levels below the recommended amount. Saturated fatty acids were higher than recommended, a risk for future diseases and ailments that may hinder athletic recovery.
Nutrition Education Intervention for College Female Athletes	The objective of this study was to evaluate the efficacy of nutrition education for female athletes to improve their nutrition knowledge and dietary intake. Better nutrition leads to better athletic performance and recovery.	After the nutrition education intervention, the female athletes improved their knowledge of basic nutrition, specifically energy intake, macronutrients, and calcium, iron, and zinc. They also improved their self-efficacy regarding their ability to make healthful food choices which resulted in a positive effect on their dietary intake. However, caloric data stayed the same with a positive increase of macronutrients post education.
Nutrition Knowledge and Attitudes of College Athletes	Previous research indicates nutritional knowledge amongst athletes is minimal, however, is one of the most important factors in athletic performance. The goal of this study was to compare female and male athletes and examine their dietary intake, sources of nutrients, and relationship between diet and disease processes.	The athletes had a low awareness of the correlation between nutrient intake and disease prevention. Caloric intake for female athletes was lower compared to men, however, men had a poor micronutrient intake add about options on campus.
Assessment of Nutritional Knowledge in Female Athletes Susceptible to the Female Athlete Triad Syndrome	The aims of this study were to assess nutritional knowledge in female athletes who were prone to Female Athlete Triad (FAT) syndrome. FAT is described as disordered eating or eating disorders that can cause serious medical issues.	A higher percentage of athletes were at risk of menstrual dysfunction compared to the control group and scored high under the values for FAT syndrome. 8.5% of athletes were at risk for lack of bone mineral density. Formal education scores did not have an effect on being classified as at risk.



<http://clipart-library.com/clip-art/girls-lacrosse-silhouette-13.htm>

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