

Food Consumption and Nutrition Knowledge in Athletes: systematic literature review

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INTRODUCTION

Sports nutrition involves the application of nutritional principles to improve the performance of individuals who practice some sporting modality. The nutritional knowledge of the athlete is relevant, to acquire competences in the correct choice of food, in order to meet the daily energy needs.

METHODS

The objective of the systematic review is to evaluate the food consumption of athletes and their nutritional knowledge. The bibliographic research was carried out in the databases *PubMed* And *Science Direct*, According to the guidelines PRISMA and Collaboration Cochrane (Galvão, Pansani & Harrad, 2015) for the period between 2008-2018. After applying the inclusion and exclusion criteria, 12 articles were selected from a total of 1130 articles.

RESULTS AND DISCUSSION

Table 1. General presentation of the results of the systematic review..

Article	Results	
	Food Consumption	Nutrition Knowledge
Sousa et al. 2016	↑ Protein and Carbohydrates; ↓ Vit D, E, B2, Se; ↓ Vit, B2, B9, Ca;	Not identified
Alaunyte et al. 2015	> consumption of foods rich in starch, fruits, vegetables, fatty fish and milk;	Nutritional knowledge index of 72.8%;
Praz et al. 2015	↓ Energy and Carbohydrates;	Not identified
Coutinho et al. 2016	↓ Energy ♂ and ↑ Energy ♀; ↓ Carbohydrates; ↓ Calcium, Vit A and C; < Consumption of fruit and vegetables;	Not identified
Aerenhouts et al. 2010	↑ Total and saturated fat; ↓ Carbohydrates; ↓ Water intake; < Consumption of fruit and vegetables;	Not identified
Andrew et al. 2015	↓ Carbohydrates;	Positive correlation between adequate nutritional knowledge and recommended carbohydrate intake;
De sousa et al. 2008	↑ Energy and Protein; ↓ Carbohydrates; ↓ Water intake; ↓ Vit.B1, E, B9 and Mg, P; < Consumption of fruit and vegetables;	Not identified
Erdman et al. 2013	↓ Energy, Carbohydrates and Protein;	Not identified
Walsh et al. 2011	Not identified	Nutritional knowledge index of 59.6%;
Burrows et al. 2016	↑ Energy and Saturated Fat; ↓ Water intake; < Consumption of fruit and vegetables;	Not identified
Beji et al. 2016	↑ Total Fat, Saturated Fat and Protein; ↓ Ca, Mg, K; ↓ Water intake;	Not identified
Gacek, M, 2015	< Consumption of fruit and vegetables;	Not identified

The inadequacy of energy (Praz, Granges, Burtin, & Kayser, 2015) consumption and the carbohydrate (Coutinho, Porto, & Pierucci, 2016) intake deficit was 50% (n = 6) of the articles analyzed. Regarding protein (M. Sousa et al., 2016) and total saturated fat consumption, 25% (n = 3), showed excessive consumption according to recommendations. In the micronutrient intake there was a deficit of vitamins and minerals in 42% (n = 5) of the articles. In the water intake, the prevalence of inadequacy was 33% (n = 4). Regarding food frequency, there was a low intake of fruits and vegetables, at least 42% (n = 5) of the articles and cereals in 33% (n = 4). About nutritional knowledge, the articles that evaluate it (n = 3): 67% (n = 2) have investigated that the Average nutritional knowledge index was higher than 50% (Alaunyte, Perry, & Aubrey, 2015), verifying a statistically significant association between food consumption and nutritional knowledge (p < 0.05).

CONCLUSIONS

Most athletes do not have an adequate diet for their respective sport practice. So, it is paramount to reinforce research on the nutritional knowledge of the athletes.

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