



An Intake Food Recommendation for High-Performance Youth Elite Soccer Players During a Match Day

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Abbreviations: CHO: Carbohydrates; PTN: Proteins

Introduction

The youth soccer generally players undergo a rapid growth and maturational changes with physiological, anatomical, and biological changes [1] and over the years, they can optimize physiological demands results in their athletic performance improve. Something was proved by a research that evaluated youth-soccer players during seven years of follow-up, it was observed that in youth soccer, in which the sprint distance and number of sprints increased by ~35%, whereas the number of high-intensity actions increased by ~50% [2]. In this way, there is the importance of a specific food intake for this sports category, because there are findings displaying mean energy deficits almost 900 kcal. day⁻¹ in high-performance youth soccer players caloric intake [3], something that can influence the athlete's performance, impair the game level, and even influence the injury risk. Before speculating about the calories to be ingested, it is interesting to know the number of calories spent by high-performance youth soccer players, where the mean values without standard deviation of the total energy expenditure measured by indirect calorimetry of high-performance youth soccer players from the English Premier League were 2859 kcal. day⁻¹ (68 kcal. kg⁻¹. day⁻¹), 3029 kcal. day⁻¹ (50 kcal. kg⁻¹. day⁻¹) and 3586 kcal. day⁻¹ (44 kcal. kg⁻¹. day⁻¹) for U12, U15, and U18, respectively [4].

When thinking about the soccer players basic categories, the question can be raised: "Can the macronutrient recommendation

vary with the athlete's age?" Well, it seems not, the recommendations will be based on grams per kilogram of body weight per day, for macronutrients, and total calories, for daily energy consumption, how proven research that concluded daily energy intake over the 4-day period was similar between adults' elite soccer players (2988 ± 583 kcal. day⁻¹) and youth elite soccer players (2938 ± 465 kcal. day⁻¹), proving this way that despite the ages being different, young elite soccer players may have an energy intake around 3000 kcal. day⁻¹ [5].

Another recent study evaluated youth soccer players from the base categories, in which caloric intake and carbohydrate intake were evaluated, found an approximate mean of 1900 Kcal and 255 g [6]. Other recent find suggests the food consumption by the carbohydrates should be between 5 and 7 g. kg⁻¹. day⁻¹ CHO, irrespective of age or nationality into high performance youth soccer players [7]. And, about another consumptions, involving proteins and lipids too, come a clinical trial study involving 42 youth soccer players with a mean age of 16.7 ± 1.5 years managed to collect data on food consumption of these athletes for total calories, carbohydrates, proteins, and fats, with findings on average of 3477 Kcal. day⁻¹, 6.4 g. kg⁻¹. d⁻¹, 1.8g. kg⁻¹. d⁻¹ and 1.8 g. kg⁻¹. d⁻¹, respectively [8]. In Brazil, youth games usually take place on Saturdays or Sundays in the morning [9], so the author summarized a (Figure 1) with the main dietary recommendations for a soccer player during a game day.

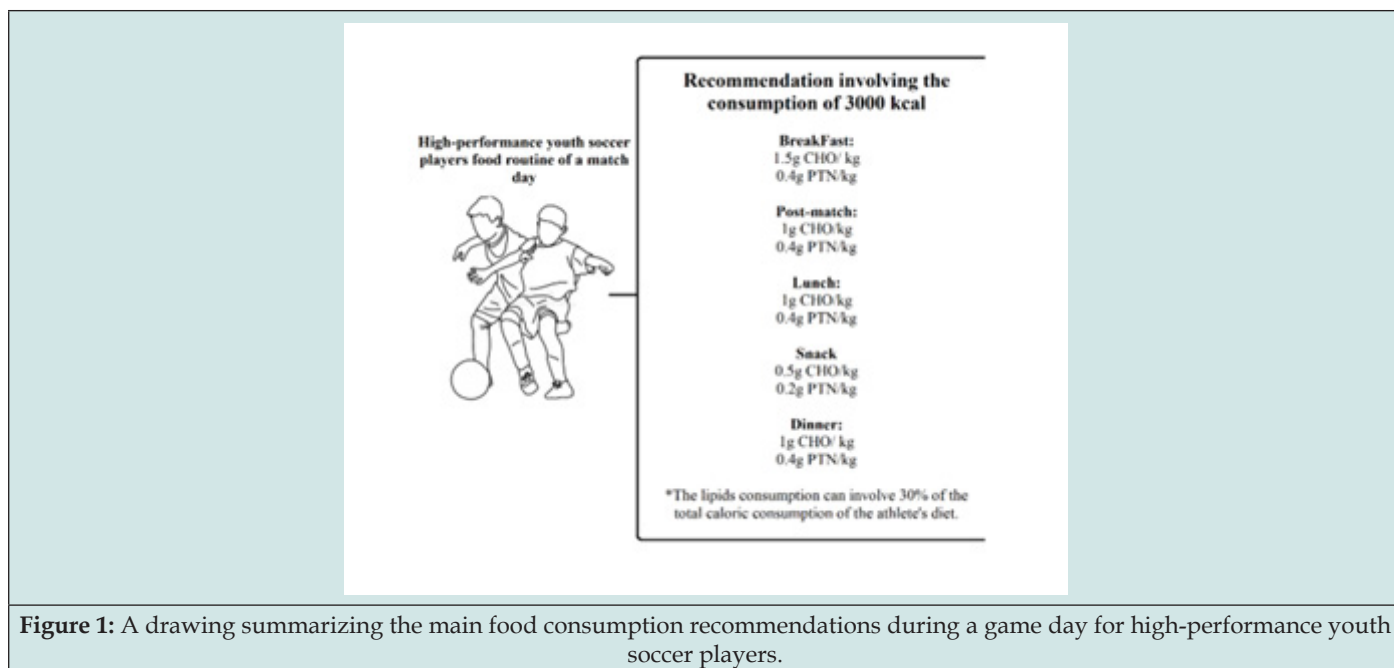


Figure 1: A drawing summarizing the main food consumption recommendations during a game day for high-performance youth soccer players.

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