

## Dietary Intake Recommendations for High Performance Youth Soccer Players

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Youth soccer players undergo a rapid growth and maturational changes which result in physiological, anatomical, and biological changes [1] that's why these players exhibit increased nutritional requirements to support the energy demands of growth and performance. What should to reinforce the importance of nutritional support because there are findings that shows mean energy deficits almost 900 kcal $\text{day}^{-1}$  in high performance youth soccer players [2]. A recent research evaluated eighty-one high performance youth soccer players (10-16 years old; U10-U16), competing in 11-a-side matches, and concluded total match running distance increased with age from ~5700 (U11) to ~6700  $\text{mh}^{-1}$  (U15) [3] having greater area go through as age increases and, consequently, there should be greater attention to the energy intake of these athletes. Recently a work demonstrated mean values of total energy expenditure of 2859 kcal $\text{day}^{-1}$  (68 kcal $\text{kg}^{-1}\text{day}^{-1}$ ), 3029 kcal $\text{day}^{-1}$  (50 kcal $\text{kg}^{-1}\text{day}^{-1}$ ), and 3586 kcal $\text{day}^{-1}$  (44 kcal $\text{kg}^{-1}\text{day}^{-1}$ ), using indirect calorimetry and doubly-labelled water for U12/13,

U15, and U18 English Premier League players, respectively [4].

The findings from nitrogen balance methodology in high performance youth soccer players showed requirements of 1.4 g $\text{kg}^{-1}\text{day}^{-1}$  which are higher than recommended daily allowances but in-line with guidelines for adults athletes [5]. Other findings suggest currently consume between 5 and 7 g $\text{kg}^{-1}\text{day}^{-1}$  CHO daily with the majority currently around 5 g $\text{kg}^{-1}\text{day}^{-1}$ , irrespective of age or nationality into high performance youth soccer players [6]. Current evidence suggests high performance youth soccer players do not periodize their energy intake and carbohydrate intake to match the demands of training and competition [7]. Such as proved recently be a beneficial strategy for improve performance into adults soccer players athlete's [8,9]. Therefore, the dietary recommendations strategies for high performance youth soccer players resemble the same recommendations for elite adult soccer players.

As such, Table 1 encompasses the evidence-based calorie, carbohydrate, and protein recommendations demonstrated by this letter for high performance youth soccer players across three age group averages.

**Table 1.** Dietary intake recommendations evidence based for high performance youth soccer players.

	U12/13	U15	U18
Total energy intake	2859 kcal $\text{day}^{-1}$	3029 kcal $\text{day}^{-1}$	3586 kcal $\text{day}^{-1}$
Energy intake per kg	68 kcal $\text{kg}^{-1}\text{day}^{-1}$	50 kcal $\text{kg}^{-1}\text{day}^{-1}$	44 kcal $\text{kg}^{-1}\text{day}^{-1}$
Carbohydrates	5 g $\text{kg}^{-1}\text{day}^{-1}$	5 g $\text{kg}^{-1}\text{day}^{-1}$	5 g $\text{kg}^{-1}\text{day}^{-1}$
Protein	14 g $\text{kg}^{-1}\text{day}^{-1}$	14 g $\text{kg}^{-1}\text{day}^{-1}$	14 g $\text{kg}^{-1}\text{day}^{-1}$
Average values without SD (standard deviation)			

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