

Refeeding Day Strategies in Elite Soccer Players: A New Way to Maintain Performance Losing Body Fat Percentage

Haniel Fernandes* 

Estácio de Sá College, Nutrition Department, Fortaleza, Ceará, Brasil

Correspondence to: Haniel Fernandes, Estácio de Sá College, Nutrition Department, Fortaleza, Ceará, Brasil.

Received date: June 04, 2023; **Accepted date:** June 19, 2023; **Published date:** June 25, 2023

Citation: Fernandes H. Refeeding Day Strategies in Elite Soccer Players: A New Way to Maintain Performance Losing Body Fat Percentage. *J Clin Biomed Invest.* 2023;3(1): 20-21. doi: 10.52916/jcibi234025

Copyright: ©2023 Fernandes H. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

ABSTRACT

The refeeding days strategies are already used by bodybuilders in pre-contest periods to increase the decrease in body fat percentage without impairing the performance of these athletes and maintain fat-free mass for their competition day. But, among elite soccer players, who always want to have low percentages of body fat, how could the refeeding days strategies be used? Perhaps in off-season periods where there is not so much concern in optimizing performance but in keeping the fat-free mass high and reducing the body fat percentage. This work demonstrates a scientifically based commentary with articles that address the subject and a proposal of how the prescription of a dietary week that includes refeeding days strategies for elite soccer players who want to reduce body fat percentage during off-season periods could be.

Keywords

Fat percentage, Energy, Carbohydrates, Clinical studies

Introduction

Into another sports, like strength sports, the athletes can benefit from a refeed days strategies, especially during undertaking severe energy restriction [1,2], but of course combining with an specific training protocol. This is used for losing body fat percentage and maintain the fat free mass, the maximal possible in these cases. Into resistance athletes, bodybuilders specifically, the refeeding days strategies are used during final moments to competition day. On the other hand, for the soccer players, the idea would use these strategies in off-season moments, when the soccer athlete is without competition days, i.e., weeks without matches.

Thinking about it, at the soccer it is common athletes want to reduce their body fat percentage because they think feel light in the pitch [3], and even knowing that a high carbohydrate diet is usually recommended both on training days and matches [4] and knowing too, that can include currently established carbohydrate periodization strategies [5,6]. Therefore, becomes interesting evaluated if these refeeding days strategies can be used into the elite soccer players and imagine a prescription proposal for this prescription diet model.

Discussion

The low total carbohydrates intake, in the long term, may lead the athlete to lose energy and to worse their sport performance [7]. This would not be new. This would not be new. However, how long would this be detrimental to the elite soccer player? A current study has been able to prove that a hypocaloric diets with low carbohydrate consumption for short periods were able to decrease body fat and waist circumference in elite soccer players without to harm their performance [8]. Including, another recent study in resistance-trained individuals showed that periods of continuous energy restriction interrupted by short refeed periods, i.e., something we can quote as

the refeeding days strategies, would may help to reduce compensatory metabolic responses and improve weight loss efficiency, maintain their performance [9].

This way, although they are recommendations not yet used for elite soccer players, not being used by much research, the refeeding days strategies can be used in any sports, including endurance sports like soccer, where the athlete want to lose fat percentage without lose performance. Something that can be occurs by implementing one or two days and hand over a high carbohydrate and energy intake (generally at or slightly above body weight maintenance levels), thereby providing a break from the consecutive days of energy restriction, as has been recently proven [10]. But, as stated initially in this work, bodybuilding athletes use these strategies on days close to their competition. Elite soccer athletes, on the other hand, could benefit from using refeeding days strategies in their off-season periods, where they do not need high calories or high amounts of carbohydrates, that is, intimately short periods compared to their competitive seasons.

As there are still no publications on refeeding days for elite soccer players, the author brought through Table 1 a dietary recommendations proposal using refeeding days strategies already proposed to resistance athletes [1,2,11,12] correlating them with applications involving energy and macronutrient intakes for elite soccer players previously published [13]. This way, it can be observed the refeeding days strategies commonly applied to resistance athletes can be applied to soccer players during their soccer off-seasons to help them lose body fat percentage without impairing their performance during the trainings. However, it is worth noting that these strategies would be better used for short periods, during the off-season, using refeeding days on weekends, with a week of energy restriction using already established recommendations for elite soccer players, as shown in the Table 1. Besides all this, clinical studies that prescribe diets for a considerable sample are necessary for these recommendations' scientific basis and their real implications for soccer.

Table 1: A proposal of refeeding days strategies to elite soccer player.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	CHO: 0.5g/kg	CHO: 0.5g/kg	CHO: 0.5g/kg	CHO: 0.5g/kg	CHO: 0.5g/kg	CHO: 2g/kg	CHO: 2g/kg
	PTN: 1g/kg	PTN: 1g/kg	PTN: 1g/kg	PTN: 1g/kg	PTN: 1g/kg	PTN: 1g/kg	PTN: 1g/kg
Lunch	CHO: 1g/kg	CHO: 1g/kg	CHO: 1g/kg	CHO: 1g/kg	CHO: 1g/kg	CHO: 3g/kg	CHO: 3g/kg
	PTN: 1g/kg	PTN: 1g/kg	PTN: 1g/kg	PTN: 1g/kg	PTN: 1g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg
Snack	CHO: 0.25g/kg	CHO: 0.25g/kg	CHO: 0.25g/kg	CHO: 0.25g/kg	CHO: 0.25g/kg	CHO: 1g/kg	CHO: 1g/kg
	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 1g/kg	PTN: 1g/kg
Dinner	CHO: 1g/kg	CHO: 1g/kg	CHO: 1g/kg	CHO: 1g/kg	CHO: 1g/kg	CHO: 3g/kg	CHO: 3g/kg
	PTN: 0.5g/kg	PTN: 0.5g/kg	PTN: 0.5g/kg	PTN: 0.5g/kg	PTN: 0.5g/kg	PTN: 0.5g/kg	PTN: 0.5g/kg
Supper	CHO: 0.25g/kg	CHO: 0.25g/kg	CHO: 0.25g/kg	CHO: 0.25g/kg	CHO: 0.25g/kg	CHO: 1g/kg	CHO: 1g/kg
	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg	PTN: 0.25g/kg

Conflict of interests

The author declares to have no conflict of interest for this research.

Funding

The author declares to have no funding for this research.

References

- Moura RF, De Moraes WMAM, De Castro BM, et al. Carbohydrate refeed does not modify GVT-performance following energy restriction in bodybuilders. *Clin Nutr ESPEN.* 2021;43(6):308-316.
- Fernandes H. Without refeeding days, drastically reducing calories in the pre-competition phase may does not guarantee a better reduction in bodybuilder’s body fat percentage. *Clin Nutr Open Sci.* 2022;43(6):1–5.
- Spehnyak M, Gušić M, Molnar S, et al. Body composition in elite soccer players from youth to senior squad. *Int J Environ Res Public Health.* 2021;18(9): 4982.
- Williams C, Rollo I. Carbohydrate Nutrition and Team Sport Performance. *Sports Med.* 2015;45 Suppl 1(Suppl 1):S13-S22.
- Fernandes H. The carbohydrates periodization strategies should target training and matches load of elite soccer players. *Sci Sports.* 2022;37(2):153-154.
- Fernandes H. For Elite Soccer Players the Carbohydrates Periodization Strategies Should Obey Different Training Load. *Mathews J Sport Med.* 2023;3(1):1-5.
- Marquet LA, Hausswirth C, Molle O, et al. Periodization of carbohydrate intake: Short-term effect on performance. *Nutrients.* 2016;8(12):1-13.
- Paoli AA, Mancin L, Caprio M, et al. Effects of 30 days of ketogenic diet on body composition, muscle strength, muscle area, metabolism, and performance in semi-professional soccer players. *J Int Soc Sports Nutr.* 2021;18(1):62.
- Campbell BI, Aguilar D, Colenso-Semple LM, et al. Intermittent energy restriction attenuates the loss of fat free mass in resistance trained individuals. A randomized controlled trial. *J Funct Morphol Kinesiol.* 2020;5(1):1-12.
- Escalante G, Campbell BI, Norton L. Effectiveness of Diet Refeeds and Diet Breaks as a Precontest Strategy. *Strength Cond J.* 2020;42(5):102-107.
- Fernandes H. During bodybuilding preparation , is a greater energy deficit related to a lower body fat percentage? *Sci Sports.* 2023;38:602-606.
- Fernandes H. Diet periodization strategies can help bodybuilder athletes lose body fat and maintain fat-free mass. *Sci Sports.* 2023.
- Fernandes HS. A proposal of energy and macronutrients intakes for elite soccer players. *Sci Sport.* 2021;36(6):489-491.