



## Nutritional Status of Athletes, Marathon and Founder Runnes, After Dietary Intervention, Petrolina - PE

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### ABSTRACT

**Introduction:** Nutritional status is the condition that the body assumes due to the nutrition and metabolic expenditure, representing the sum of the interaction of somatic and functional elements responsible for the absorption of nutrients and adequacy of physiological needs. The deficit in the nutritional status of athletes has a direct impact on physical performance, anthropometry and glycemia. **Objective:** To evaluate the nutritional status related to the physical performance of athletes, founder and marathon runners of Petrolina before and after the nutritional intervention. **Methodology:** The population was composed by 10 athletes and marathonists of the Petrolinense Association of Athletics. The evaluation of the nutritional status was performed through anthropometric analysis: body weight, height, body mass index (BMI), skin fold and circumferences. **Results and Discussion:** After nutritional intervention, athletes reduced body weight ( $p = 0.034$ ) and BMI ( $p = 0.025$ ). Consequently, they decreased the percentage of subcutaneous fat by the bioimpedance method ( $p = 0.012$ ), and promoted an increase in muscle mass ( $p = 0.010$ ). With the application and orientation of the alimentary plane, only the folds of the abdominal ( $p = 0.034$ ) and the calf ( $p = 0.001$ ) showed a reduction in the subcutaneous lipid content. It is possible to verify a strong relation between the energy expenditure of the race and the anthropometric measures, mainly with the corporal mass. This association is explained by the fact that athletes who reduce their weight by the loss of body fat improve the relation with the content of lean mass, therefore, increasing muscle power, with a direct impact on performance. **Conclusion:** The union of the evaluation of the nutritional status of the athletes and the subsequent nutritional intervention, they developed more their physical conditioning, reflecting less fatigue, better efforts during training and better results in competitions.

**Keywords:** Anthropometry; Athletes; Performance; Nutrition

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