

The impact of Vegan and Mediterranean diets on body composition and blood analysis of cross-fit athletes.

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A vegetarian diet does not include meat or seafood, or products containing those foods. A vegan diet avoid also egg and dairy products (1).

A well-planned and balanced vegetarian/vegan diet could be suitable for every individuals. Moreover, evidence suggested that high-level athletic performance could be achieved without consuming animal products (2).

However, some key nutrients should be taken into account because of probability of nutritional deficiencies (i.e. proteins, n-3 fatty acids, iron, zinc, iodine, calcium, and vitamins D and B-12). In particular, studies described the prevalence of Vitamin B12, Iron and Calcium deficiencies in athletes following a Vegetarian or a Vegan diet (3).

The aim of the study was to evaluate the impact of Vegan and Mediterranean diets on body composition and blood analysis of cross-fit athletes.

25 healthy subjects, aged between 22 and 37 and all attending Cross-fit classes participated to the study for 3 months. They were divided in two groups: Vegan group and Mediterranean group.

The two groups were following the same training program and diet was structured according to Mediterranean and ISSN guidelines. Vegan diets were characterized only by plant derived products. Anthropometric measurement and Bioimpedence Analysis were performed to assess body composition. Blood parameters (Pre-albumin, Albumin, Total blood protein, Hemoglobin, Total blood Cholesterol, Vitamin B 12, Folate, Serum iron, Ferritin, Calcium) were evaluated both at the beginning and at the end of the study.

Evaluating body composition, it was observed a statistically significant increase in fat mass of vegan group and a consequent decrease in free fat mass. Moreover, an increase of body water was reported in vegan group in particular in terms of extra-cellular water.

Blood analysis showed no significant differences also in terms of blood cholesterol.

In conclusion, as stated by several studies, a well-balanced vegan diet could be suitable for individuals and for athletes. In our case, no differences in blood analysis were observed. However, from this study a worsening of body composition was observed in vegan group. This could be related to different factors such for example the glycemic index and load of the meal. For this reason, further studies are needed to better understand it.

References

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