

## عنوان مقاله:

THE EFFECT OF L-ARGININE SUPPLEMENTATION ON BODY COMPOSITION AND PERFORMANCE IN MALE ATHLETES: A DOUBLE-BLINDED RANDOMIZED CLINICAL TRIAL

## محل انتشار:

سومین کنگره بین المللی و پانزدهمین کنگره تغذیه ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

**Background and Aim:** Athletes used a lot of dietary supplements to achieve the more muscle mass and improve their athletic performance. The objective of this study was to investigate the effect of L-arginine supplementation on sports performance and body composition in male soccer players. **Methods:** This double-blinded, randomized and placebo-controlled trial was conducted on 56 male soccer players, with age range of 16–35, who referred to sport clubs in Isfahan, Iran. Subjects were randomly assigned to either L-arginine or placebo groups. Athletes received daily either 2 g per day L-arginine supplement or the same amount of placebo (maltodextrin) for 45 days. Sport performance and also body mass index (BMI), body fat mass (BFM) and lean body mass (LBM) were measured at the beginning and end of the study. Also, 3-day dietary records were collected at three different time points (before, in the middle of, and at the end of the study). **Results:** The mean age of subjects was  $20.85 \pm 4.29$  years. Sport performance ( $VO_2 \max$ ) significantly increased in L-arginine supplementation group ( $4.12 \pm 6.07$ ) compared with placebo group ( $1.23 \pm 3.36$ ) ( $P=0.03$ ). This increase remained significant even after adjustment of baseline values, physical activity and usual dietary intake of subjects throughout the study. No significant effect of L-arginine supplementation was found on weight, BMI, BFM, and LBM. **Conclusion:** L-arginine supplementation (2 g per day) could increase the sports performance in male athletes but had no effect on anthropometric measurements, including BMI, BFM, and LBM. So, further studies are needed to shed light on our findings

## کلمات کلیدی:

L-arginine, athletes, body composition, performance

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