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## The Effect of Vitamin A Supplementation on Various Elements in Elite Taekwondo Players.

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### **Abstract**

The present study aims to examine the effects of both physical activity and vitamin A supplementation on trace element metabolism in individuals engaged in taekwondo. The study registered seven healthy male national taekwondo players whose mean age was 21.86 +/- 0.34 years and mean weight was 64.86 +/- 2.72 kg. The subjects were supplemented with oral administration of 100 mg vitamin A (retinol) for 6 weeks, and concurrently, they were subjected to taekwondo training 5 days a week. Before starting the vitamin A supplementation, blood samples were taken from the subjects twice, once at rest and once after exhaustion. Similarly, at the end of the 6-week vitamin A supplementation, two blood samples were taken from the subjects, once at rest and once after exhaustion, in order to determine (by atomic emission) and compare serum cobalt, molybdenum, calcium, cadmium, chromium, copper, manganese, sodium, nickel, phosphorus, sulfur, iron, boron, and zinc (mg/L) levels. Values of boron and nickel dropped significantly after 6-week vitamin A supplementation ( $p < 0.001$ ). Reduced levels of boron and nickel we obtained in the present study are believed to result from the antioxidant effect of long-term vitamin A supplementation.

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