B12 AND FOLATE STATUS IN PROFESSIONAL AND SEMIPROFESSIONAL SOCCER PLAYERS
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Introduction: Folic acid and vitamin B12 are necessary for DNA replication during cell division and growth. Indeed, these two vitamins affect tissues with fast turnover including cells in bone marrow and the immune system. It’s a common tactic for elite athletes to consume large quantities of B12 and Folic acid during periods of intense training as well as before major competitions. However, there are no hard data available supporting a potential beneficial effect on exercise performance of these two vitamins taken in mega doses by apparently healthy young professional athletes.

Aim: The aim of this study was to access B12 and Folic status in professional and semiprofessional soccer players after six weeks of strenuous training in order to determine whether supplementation for these two vitamins offers any measurable benefit.

Materials and Methods: In this study, 64 professional and semiprofessional soccer players were selected from four Greek soccer clubs. Athletes that were vegetarians or were consuming B12 and/or Folate supplements were excluded. Blood samples were collected at the end of a six-week training load during the preparation period and after twelve hours of fast. Blood analysis consisted of a full blood count and determination of B12 and Folic acid concentrations.

Results: Analysis of our data showed that none of the participants developed a chemically-evident B12 deficiency after six weeks of strenuous training before major competitions. However, 3.1% of the athletes had folic acid levels in serum below normal values and 6.2% had folic acid levels close to the lower limit of reference range. The obtained mean B12 and Folic acid concentrations (563,07 ± 134,9 pg/ml and 6,53 ± 1,85 ng/ml respectively) were found to be within normal values.

Conclusions: Our data support the notion that strenuous soccer training for up to six weeks does not appear to diminish B12 levels in serum. Based on this datum we propose that B12 supplementation does not appear to be needed during short periods of strenuous physical activity. However, folic acid supplementation may be needed under these circumstances.

References

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