

Vitamins and minerals

Which athletes may be at risk of vitamin / mineral deficiencies?

Do you need supplements?

This information is taken from 'Fuel for Performance, Nutrition for Sport',
a sports nutrition resource updated and revised by the following Welsh sports dietitians:
Rhian Owen, Chris Cashin, Elaine Hibbert-Jones and Gill Regan.
Every acknowledgement is given to all the sports dietitians who contributed to the original publication
of this resource, which was first published in 1998.

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“Vitamin supplements are not necessary for athletes eating a diet adequate in respect of quality and quantity. Of the minerals and trace elements essential for health, particular attention should be paid to iron and calcium status in those individuals who may be at risk.”
Lausanne consensus statement, 1991

- Many vitamins and minerals are involved in various stages of energy production and / or vital body functions, whilst others have a more structural role in the body.
- Vitamins and minerals occur naturally in a wide variety of foods. If you are eating a healthy, balanced diet that includes foods from each food group below, as recommended for the general population, you are unlikely to be deficient in vitamins and minerals.

The eatwell plate



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Which athletes may be at risk of vitamin / mineral deficiencies?

- Those who train hard, but have a relatively small food / energy intake e.g. gymnasts.
- Those whose diets do not include a balance of all the food groups e.g. vegetarians / vegans consuming an unbalanced diet.

Other factors may also affect vitamin needs. These include:

- Large doses of anti-inflammatory drugs e.g. aspirin
- The oral contraceptive pill
- Smoking
- Excess alcohol consumption.
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Do you need supplements?

- Most studies that have been carried out in athletes on vitamin and mineral supplementation have only shown benefits in those athletes with a proven deficiency.
- Many athletes do not feel confident that their diet is always well balanced. Perhaps hectic lifestyles leave little time and energy to shop, cook and eat properly. A sports dietitian can give you valuable advice on how to make sure your diet provides a balance of nutrients.

Remember, vitamins can be toxic if taken in very large doses, particularly the fat-soluble vitamins (Vitamins A, D, E and K).

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