

Abstract

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Micronutrients in health and disease.

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BACKGROUND: Micronutrients play a central part in metabolism and in the maintenance of tissue function. An adequate intake therefore is necessary, but provision of excess supplements to people who do not need them may be harmful.

DISCUSSION: Single micronutrient deficiency states are comparatively easily recognised and treated. Subclinical deficiency, often of multiple micronutrients, is more difficult to recognise, and laboratory assessment is often complicated by the acute phase response. Clinical benefit is most likely in those people who are severely depleted and at risk of complications, and is unlikely if this is not the case.

CONCLUSIONS: There is little evidence for supplements leading to a reduction in the incidence of infections in the elderly population, in coronary artery disease, or in malignant disease. The best evidence for benefit is in critical illness, and in children in developing countries consuming a deficient diet. More clinical trials are required with good clinical outcomes to optimise intake in prevention and treatment of disease.

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