

Vitamin D deficiency is widespread and on the increase

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A new report issued by the International Osteoporosis Foundation (IOF) and published in the scientific journal *Osteoporosis International*, shows that populations across the globe are suffering from the impact of low levels of vitamin D. The problem is widespread and on the increase, with potentially severe repercussions for overall health and fracture rates.

Compiled by IOF's expert working group on nutrition, the report reviews the scope and causes of low vitamin D levels in six regions: Asia, Europe, Latin America, Middle East and Africa, North America and Oceania. Regional reports are available on the IOF website

Vitamin D is mainly produced in the skin upon exposure to sunlight, and, to a lesser extent, is derived from nutritional sources. It plays an important role, through its influence on calcium levels, in the maintenance of organ systems, and is needed for normal bone mineralization and growth. Suboptimal levels of vitamin D may lead to increased risk of osteoporosis and [hip fracture](#) and, in severe cases, to the development of rickets, a softening of bones in children that can lead to skeletal fractures and deformity.

Although there is ongoing debate as to what constitutes the optimal level of vitamin D, the report shows that regardless of whether it is defined at 50nmol/L or 75nmol/L, vitamin D status is seriously inadequate in large proportions of the population across the globe.

The main risk factors for low vitamin D levels include older age, female

sex, lower latitudes, winter season, darker skin pigmentation, less sunlight exposure, dietary habits, and the absence of vitamin D fortification in common foods. Further factors include the increase in urbanization, where people tend to live and work indoors, as well as cultural practices that tend towards sun avoidance and the wearing of traditional clothing that covers the skin. The severity of the problem in Middle East and South Asia arises from the combination of several of these risk factors.

These findings suggest that prevention strategies must be initiated at the national level - especially given the increasing ageing of populations in many regions of the world. National plans of action should encourage safe, limited exposure to sunlight and improved dietary intake of vitamin D, whilst considering fortification of foods as well.

More information:

1. A. Mithal, D.A. Wahl, J-P. Bonjour et al. on behalf of the IOF Committee of Scientific Advisors (CSA) Nutrition Working Group. Global [vitamin D](#) status and determinants of hypovitaminosis D (2009) Osteoporosis International, in press.

2. Regional reports for Asia, Europe, Latin America, Middle East and Africa, North America and Oceania may be downloaded free of charge from the IOF website on www.iofbonehealth.org/health-p...in-d-deficiency.html

Source: International Osteoporosis Foundation

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