Vitamin D deficiency is widespread and on the increase

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Report shows that populations across the globe are suffering from the impact of low levels of vitamin D, with highest rates in South Asia and the Middle East

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, higher 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.


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.

About IOF

The International Osteoporosis Foundation (IOF) is a not-for-profit, nongovernmental organization dedicated to the worldwide fight against osteoporosis, the disease known as "the silent epidemic." IOF’s members - scientific researchers, patient, medical and research societies and industry representatives from around the world - share a common vision of a world without osteoporotic fractures. IOF, with headquarters in Switzerland, currently includes 194 member societies in 92 countries, regions and territories. The Foundation works with its members to advance the understanding of osteoporosis and to promote prevention, diagnosis and treatment of the disease worldwide. Among its numerous programs and activities, IOF mobilizes the global osteoporosis movement on World Osteoporosis Day every year and organizes the IOF World Congress on Osteoporosis and the IOF World Wide Conference of Osteoporosis Patient Societies every two years.

For more information about IOF visit www.iofbonehealth.org

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