

# Vitamin D deficiency strikes one-third of Australians

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(Medical Xpress) -- Nearly one third of Australian adults are suffering vitamin D deficiency according to a study involving more than 11,000 adults from around the country.

This is the first national study to evaluate the vitamin D status of [Australians](#). Those at greatest risk for deficiency were women, the elderly, the obese, people doing less than 2.5 hours of physical activity a week, and people of non- European background.

The results highlight vitamin D deficiency as a major public health issue for Australia that requires urgent attention, said study leader Professor Robin Daly, Chair of [Exercise](#) and Ageing within the Centre for [Physical Activity](#) and Nutrition Research at Deakin University, and honorary fellow in the Department of Medicine (Northwest Academic Centre) at the University of Melbourne.

"Vitamin D deficiency is emerging as a major health problem worldwide. It is clear from the results of our study that, despite an abundance of vitamin D rich sunlight, Australians are not immune from this issue," he said.

"Low levels of vitamin D can contribute to a number of serious, potentially life-threatening, conditions such as softened bones; diseases that cause progressive muscle weakness leading to an increased risk of falls, osteoporosis, cardiovascular disease, certain types of cancer and type 2 diabetes.

"While it was reassuring that only four per cent of the population had severely deficient levels, national strategies are urgently needed to attack the high prevalence of vitamin D deficiency in Australia before the problem worsens."

For the study, the researchers measured the vitamin D levels of 11,218 adults aged 25-95 years from all six states and the Northern Territory as part of the Australian Diabetes, Obesity and Lifestyle (AusDiab) study conducted by the Baker IDI Heart and Diabetes Institute in 1999-2000.

The study revealed:

- &#149; 31 per cent of the population were vitamin D deficient
- &#149; Nearly three quarters (73 per cent) had levels considered by many experts as below the optimal for musculoskeletal health
- &#149; The prevalence of vitamin D deficiency increased with [age](#), especially in women; 26 per cent of women aged 25-34 years were deficient which increased to 57 per cent for those aged 75 years and over. This is an important finding as [vitamin D deficiency](#) is a key risk factor for falls and fractures in the elderly.
- &#149; People of non-European origin were 4-5 times more likely to be deficient
- &#149; Those who were obese and physically inactive were around twice as likely to be vitamin D deficient

The prevalence of deficiency was also found to vary markedly by season and location, with deficiency more common during winter and in people residing in the southern states of [Australia](#).

"For example, 42 per cent of women and 27 per cent of men living in the southern states were deficient during summer-autumn, which increased to 58 per cent of women and 35 per cent of men during winter-spring. Even in the northern states 31 per cent of women and 15 per cent of men

were vitamin D deficient during winter-spring," Professor Daly said.

Professor Daly and his co-authors from the University of Melbourne and the Baker IDI Heart and Diabetes Institute said it was timely and appropriate to develop national strategies across the whole population and further awareness campaigns for balancing safe sun exposure and adequate vitamin D intake to ensure optimal [vitamin D](#) status year-round for all Australians.

**More information:** The results are published in the journal [Clinical Endocrinology](#).

Provided by Deakin University

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