

# Aboriginal Australians at risk of bone, muscle pain

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Aboriginal Australians are at risk of health problems due to vitamin D insufficiency. Photo by Gary Radler.

(PhysOrg.com) -- Aboriginal Australians are at risk of increased bone and muscle pain due to their inability to produce sufficient vitamin D, according to a University of Adelaide study published in the *Medical Journal of Australia* today.

Health researcher Dr Simon Vanlint says a study of 58 Aboriginal adults in South Australia showed significantly lower vitamin D serum levels compared to paler-skinned individuals, leading to a greater chance of them developing bone, muscle and other conditions.

Dr Vanlint, from the Discipline of General Practice at the University of Adelaide, says because the brown [skin pigment](#) melanin filters ultraviolet

But light, darker-skinned individuals synthesise less vitamin D, resulting in a range of [health](#) problems.

"Vitamin D insufficiency is highly prevalent in this population of adult Aboriginal Australians, with low levels found in all seasons other than summer," he says.

"This has also been shown in African-Americans, Pacific Islander and Maori people and Indigenous Canadians."

Dr Vanlint says the seasonal variation in vitamin D levels among the study group suggests that ultraviolet light - the best natural source of vitamin D - plays the major role in maintaining vitamin D levels.

"It is likely that time spent outdoors, particularly if it includes weight-bearing exercise, will have health benefits in addition to those associated with increased vitamin D production."

The study group comprised 40 women and 18 men from community-controlled health centres in Adelaide and Yalata in South Australia.

Vitamin D plays an important role in helping the body to absorb calcium and maintain healthy bones, muscles and teeth. [Vitamin D deficiency](#) can increase a person's risk of bone and [muscle pain](#), rickets (in children) and osteoporosis.

Recent studies have also suggested links between a lack of vitamin D and a wide range of conditions, including diabetes, heart disease, cancer, lung disease, [mental health problems](#), skin disorders and some autoimmune diseases.

"If appropriate sunlight exposure is not sufficient or not possible, vitamin D is very safe to give as a supplement, and is not expensive," Dr

Vanlint says.

"Given that vitamin D is very simple to provide as a supplement, it is possible that there could be significant health benefits for this section of our population."

**More information:** [www.mja.com.au/](http://www.mja.com.au/)

Provided by University of Adelaide

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