

# Vitamin D could provide psoriasis relief

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A new study indicates some people with psoriasis might see an improvement in their symptoms from taking a vitamin D supplement, particularly in the colder months. Credit: Massey University

New research suggests increasing vitamin D intake could reduce the symptoms of chronic inflammatory skin condition psoriasis.

Psoriasis is a relatively common condition, affecting an estimated two to four per cent of the population. It is characterised by reddened, raised, scaly patches of skin, which commonly occur on the elbows, knees and scalp but can affect any part of the body. Psoriasis can develop at any age and tends to be a lifelong condition. For many people, it fluctuates in extent and severity, and can be challenging to manage despite the array of treatments on offer.

The Massey University study aimed to determine whether vitamin D supplementation improves psoriasis when compared with those taking placebo capsules. Dr Michelle Ingram, who conducted the research as part of her PhD in Nutritional Science says, "This study was partly motivated by observations that some people with psoriasis report a reduction in symptoms during the summer months, when vitamin D production in the skin is usually at its highest. Vitamin D incorporated into a cream or ointment is also a relatively effective treatment for psoriasis, yet no one had looked into whether vitamin D supplementation might be of similar benefit."

The main findings of the study were inconclusive due to an unexpected increase in vitamin D levels in the placebo group, probably from sunlight. However, Dr Ingram says further analysis across data from the 101 participants in the study showed strong evidence of a link between higher levels of vitamin D and less severe psoriasis.

"Interestingly, this relationship was only found in about two-thirds of our participants, suggesting that vitamin D may be beneficial for some people with psoriasis, yet make no difference for others. It was not clear from our data why there might have been a difference in response – understanding the variability of response to psoriasis treatments in general is a long-term challenge and one that future research will hopefully be able to address," she says.

Associate Professor Pamela von Hurst, who supervised the research, says the cause of psoriasis remains relatively mysterious, and treating this disease has long been a source of great frustration for patients and the medical profession.

"The range of treatment options are varied, impact different people in various ways and many of the complexities of the disease are yet to be uncovered," she says. "Research involving vitamin D supplementation also poses some challenges, as vitamin D levels are primarily influenced by sun exposure. However, the collective impact of psoriasis, which is undoubtedly significant, meant it was important to go ahead with this research. While we could not confirm whether vitamin D supplementation is beneficial for psoriasis per se, we have shown that increased vitamin D levels, which can be achieved through supplementation or sun exposure, are related to less [severe psoriasis](#). This indicates that some people with psoriasis might see an improvement in their symptoms from taking a vitamin D supplement, particularly in the colder months," Dr von Hurst says.

The study, funded by a Lottery Health Research grant, involved participants with varying degrees of psoriasis, (mild, moderate or severe) and showed statistically significant improvements in the group taking vitamin D [supplements](#), as well as in the group taking placebos, over a one year period. There was also a statistically significant relationship between higher vitamin D levels and PASI (Psoriasis Area and Severity Index) score across the whole group of participants.

Oral [vitamin](#) D3 supplementation for chronic plaque [psoriasis](#): A randomized, double-blind, placebo-controlled trial was published in the *Journal of Dermatological Treatment* last month.

**More information:** Michelle A. Ingram et al. Oral vitamin D3 supplementation for chronic plaque psoriasis: A randomized, double-

blind, placebo-controlled trial, *Journal of Dermatological Treatment* (2018). [DOI: 10.1080/09546634.2018.1444728](https://doi.org/10.1080/09546634.2018.1444728)

Provided by Massey University

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