

Research Finds Vitamin B3 Protects Skin Cells from Effects of UV Exposure

Research presented on October 31st, 2020 at the 29th European Academy of Dermatology and Venereology (EADV) Congress showed a form of vitamin B3 (nicotinamide, NAM) has a potential to protect skin cells from the effects of ultraviolet (UV) exposure. UV exposure is the main risk factor for non-melanoma skin cancers. Italian researchers isolated skin cells from patients with non-melanoma skin cancers and treated them with three different concentrations of NAM, for 18, 24, and 48 hours. The cells were then exposed to UVB rays. Results showed that pre-treating with 25µM of NAM 24 hours before UV exposure protected the skin cells from the harmful effects of UV radiation. Additionally, antioxidant expression and local inflammation was also decreased.¹⁻⁴ The amount of vitamin B3 that needs to be taken in humans to get protective effects was not addressed in the article. According to research student, Lara Camillo, the study showed that increased consumption of vitamin B3 can have a protective effect on the skin, but the effect is short acting so the vitamin B3 should be consumed 1-2 days before exposure. Of note, this was an in vitro study, so the results need to be verified in real patients taking vitamin B3^{1,4}

Resources:

1. Murphy, J. (2020, October 31). Research Finds Vitamin B3 Protects Skin Cells from Effects of UV Exposure. Pharmacy Times. Published October 31, 2020. Available at: <https://www.pharmacytimes.com/news/research-finds-vitamin-b3-protects-skin-cells-from-effects-of-uv-exposure>. Retrieved November 03, 2020
2. EurekAlert. (2020, October 31). Vitamin B3 protects skin cells from the effects of UV exposure, new research finds. Retrieved November 03, 2020, from https://www.eurekalert.org/pub_releases/2020-10/sc-vbp103020.php
3. Stewart, K. (2020, November 01). Vitamin B3 May Protect Skin Cells from UV Exposure. Retrieved November 05, 2020, from <https://todayspractitioner.com/dermatology/vitamin-b3-may-protect-skin-cells-from-uv-exposure/>
4. DE 24 News. (2020, November 01). Tech News. Retrieved November 05, 2020, from <https://www.de24.news/2020/11/according-to-new-research-vitamin-b3-protects-skin-cells-from-the-effects-of-uv-exposure-2.html>

Prepared by: Kayla Ledsome, Doctor of Pharmacy Candidate