Ultraviolet-radiation and health: optimal time for sun exposure.

Moan J, Grigalavicius M, Dahlback A, Baturaite Z, Juzeniene A.

Abstract

Positive as well as negative health effects of exposure of human skin to UV radiation depend on spectra and fluence rates, both of which being dependent on latitude, time of the day and several other factors. The major positive effects are related to vitamin D photosynthesis and the major negative effect is skin cancer development. The action spectra for these effects are different. This lead us to conclude that for optimal vitamin D synthesis at minimal risk of cutaneous malignant melanoma (CMM), the best time for sun exposure is between 10 a.m. and 1 p.m. Thus, the common health recommendation (that sun exposure should be avoided between the hours of 10 a.m. and 4 p.m. and postponed to the afternoon) may be wrong.