

Likert Score	Title	1st Author	Year	Publication Type	Summary Notes	Relevant Quotes
1	A critical appraisal of the recent reports on sunbeds from the European commission's scientific committee on health, environmental and emerging risks and from the World Health Organization	Reichrath, J.	2018	review	Authors respond to SCHEER and WHO reports, which conclude that sunbeds cause skin cancer and do not have health benefits. Authors argue that risks are supported by "weak" evidence, and benefits (including vitamin D production) are substantial.	"current scientific knowledge does not support the conclusion sunbed use increases melanoma risk." "It further underlines the unbalanced view of the SCHEER and WHO reports, that they conceal the large body of evidence demonstrating beneficial health effects of UV radiation" "Sunbeds using UVB radiation lead to sufficient vitamin D production to significantly increase serum 25(OH)D concentration within 8-12 weeks."
2	Sunbeds with UVB radiation can produce physiological levels of serum 25-Hydroxyvitamin D in healthy volunteers	Kimball, S. M.	2017	original research	Authors briefly mention known risks of UV exposure (skin cancer) in the introduction. The rest of the paper focuses on the benefits of vitamin D, and the ability of sunbeds to provide optimal levels.	"The production of vitamin D in the skin is a demonstrably positive aspect of tanning." "The current study supports the suggestion that artificially produced UVB radiation sources that mimic sunlight, in this case fluorescent sunbed lamps with 2.2% and 4.2% UVB, could be a surrogate for sunlight when the UV index is low in northern countries for vitamin D production."
3	Tanning, protection against sunburn and vitamin D formation with a UV-A 'sun-bed'	Devgun, M. S.	1982	original research	Though the article reflects the state of the knowledge at the time it was written, authors discuss both risks and benefits of sunbeds with fairly equal emphasis.	"Most subjects also had itching and erythema, and three had polymorphic light eruption. Although very little UV-B irradiation was present, a significant increase in serum levels of 25-hydroxyvitamin D occurred, and possible explanations of this surprising finding are discussed."
4	25-Hydroxyvitamin-D3 serum modulation after use of sunbeds compliant with European Union standards: A randomized open observational controlled trial	Weber, B.	2017	original research	Authors discuss both potential benefits (increase in Vitamin D) and risks (skin cancer) of tanning beds, but they ultimately conclude that sunbeds produce only transient increases of 25(OH)D and do not improve wellbeing.	"Several investigations clearly showed an association between regular sunbed use and different cutaneous cancers." "We conclude that sunbed use compliant with the new EU standards does not contribute to a sustainable increase of vitamin-D serum levels nor does it improve self-reported well-being."
5	Adverse effects of ultraviolet radiation from the use of indoor tanning equipment: time to ban the tan	Lim, H. W.	2011	review	Authors describe the risks of indoor tanning at great length and argue for a federal ban on commercial tanning beds. Authors address possible health benefits of tanning and conclude that they are false (i.e. that tanning beds are a good sources of vitamin D).	"Numerous studies have documented an association between the use of indoor tanning devices and an increased risk of skin cancer, especially in young women. Studies have shown that ultraviolet exposure, even in the absence of erythema or burn, results in DNA damage." "Tanning bed lamps are not an efficient source to induce vitamin D synthesis."