

Is there really such strong evidence for linking sunbeds to Melanoma?

Brussels, 10th of October 2018 – Today the French health agency ANSES (Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail) published an opinion asking for a total ban of sunbeds in France based on the current scientific state-of-the-art stating that there is strong evidence linking sunbed use to melanoma and that there is no evidence for positive effects such as the generation of Vitamin D through artificial UV exposure.

Is the story really so black and white? We believe not and neither do many leading scientists.

Currently spread out scientific knowledge on the correlation between skin cancer and sunbed use is mostly based on observational studies « demonstrating associations that are confounded by other known risk factors and that do not demonstrate causation. » ^{1,2} Also, most meta-analyses on sunbed use in Europe (still) include results from studies that were obtained before the introduction of the 0.3 W/m² irradiation limit for sunbeds in 2007. Furthermore, the IARC report from 2009, mentioned as the main source for the increase of skin cancer risk caused by sunbed use, mainly relies on data derived from the use of tanning equipment outside of professional tanning facilities, including equipment used at home and for medical purposes as well as data from other continents where the European irradiation limit has not been applied. Further, most of the studies referred to have included skin type I persons that are not allowed to use professional sunbeds in Europe. When these incorrect data are excluded, the increase of skin cancer risk when using professional sunbeds is just not there!

No benefits of sunbed use? A recent study by Kimball et al. from 2017 showed that UV-B emitting sunbeds can substantially increase vitamin D levels. Also, a study by Lindquist et al. from 2014 concludes that avoidance of UV exposure is a high risk factor for all-cause mortality.

ESA Secretary General Frank Harbusch says: "I believe that there is little disagreement on the fact that all humans need UV light for living a healthy life. A photon is a photon, no matter if emitted by the natural sun or a sunbed. The only difference is that we can control the UV emission on a sunbed and we cannot or do not want to control the exposure to natural sunlight. In Europe, professional sunbeds are extremely well regulated. You can ask yourself the question whether it is better to have a tailor-made tanning session on a sunbed based on your skin type or expose yourself to the uncontrolled outside sun during a vacation at the Canary Islands. I think the answer on the better approach is quite evident."

ESA promotes moderate and controlled UV exposure based on personal characteristics.

- 1. Burgard et al., Solarium Use and Risk for Malignant Melanoma: Meta-analysis and Evidence based Medicine Systematic Review.
- 2. Reichrath et al., 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 Word Health Organization.
- 3. Samantha Kimball et al., Sunbeds with UVB radiation can produce physiological levels of serum 25-Hydroxyvitamin D in healthy volunteers.
- 4. Lindqvist et al., Avoidance of sun exposure is a risk factor for all-cause mortality: results from the Melanoma in Southern Sweden cohort.