



## Press Highlights (no 5)

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### ***‘Sunbeds industry must admit that they are selling a product that can cause skin cancer and enhance addictive behaviours’***

Vienna, 30/09/16. According to the International Agency for Research on Cancer (IARC) of the World Health Organization (WHO), sunbeds, also known as tanning beds, represent the most frequent source of ultraviolet radiation apart from the sun in developed countries.<sup>1</sup> In addition, the WHO has classified indoor tanning as a Group 1 carcinogen (carcinogenic to humans) and the European Code Against Cancer clearly advises to not use sunbeds.<sup>2</sup>

Dr. Mariano Suppa, from Brussels, Belgium, took the floor at the Press Conference of the 25<sup>th</sup> EADV Congress in Vienna, to discuss the current state of play with regard to the regulation of sunbeds on the European level, as well as demonstrate data about sunbed prevalence. Dr. Suppa presented a quick overview of research findings from a number of scientists, which show that exposure is consistently higher in Northern/Western Europe than in the USA and Australia, both for adults (42%) and adolescents (24%). He added that recent exposure (past year exposure) to sunbeds was 21% in adults and 36% in adolescents, suggesting that sunbed use remains fashionable among young people.<sup>3</sup>

Describing the typical sunbed user in Europe, Dr. Suppa explained that it's mostly young women, with intermediate skin type, employed, with medium/high socio-economic status, who demonstrate sun-seeking behaviour (intermittent sun exposure, holidays to sunny places, have experienced sunburns), as well as other risky behaviours, such as smoking and come mostly from sun deprived European countries.<sup>4</sup> *‘Nonetheless, sunbed use remains non-negligible in fair-skinned individuals, in southern countries, such as Italy and Spain and, worse even, among adolescents and pre-adolescents, who are putatively more vulnerable to the carcinogenic impact of indoor tanning,’* highlighted Dr. Suppa.

*‘It has been reported that over 3400 melanoma cases are attributable to sunbed use every year in Europe and that the risk of melanoma is significantly increased for subjects ever exposed to sunbeds, particularly if exposure occurs before the age of 35’,<sup>5</sup>* explained Dr. Suppa. He added that it has been estimated that 429,927 cases of skin cancer (including 10,888 melanomas) each year are attributable to indoor tanning in the US, Northern and Western Europe and Australia. *‘To put this in perspective, approximately 362,941 cases of lung cancer are attributable to smoking each year in these regions’,<sup>3</sup>* he underlined.

A proportion of sunbed users have reported their tanning habit as addictive (“tanorexia”).<sup>6,7,8</sup> This addiction may rely on the intra-keratinocyte synthesis of proopiomelanocortin (POMC) induced by UV exposure.<sup>9</sup> POMC is a precursor to both melanocyte-stimulating hormone and beta-endorphins, which justifies the feeling of relaxation and wellbeing. American studies on anxiety, depression and substance abuse among indoor tanners and sun-seekers have suggested that individuals engaging in compulsive tanning and sunbed use might possibly suffer psychiatric distress.<sup>10,11,12</sup> *‘Indeed, it has been suggested that addictive sunbed use should be regarded as a type of substance related disorder’*,<sup>13</sup> added Dr. Suppa.

With regard to the regulation of sunbeds on the European level, there is no specific legislation regulating them. Sunbeds regulation falls currently under the Low Voltage Directive (2014/35/EU), which ensures that electrical equipment within certain voltage limits provides a high level of protection for European citizens, and benefits fully from the Single Market. Electrical equipment under the LVD covers a wide range of consumer and professional products e.g. household appliances, cables, power supply units, laser equipment and some components such as fuses. Furthermore the General Product Safety Directive (2001/95/EC) applies in the absence of specific European regulations on safety of certain product categories and complements the provisions of sector legislation, which do not cover certain matters, for instance in relation to producers’ obligations and the authorities’ powers and tasks. In addition the voluntary harmonised standard EN 60335-2-27:2013 sets the limit for total effective irradiance to 300 mW/m<sup>2</sup>, which is a limit to protect most sensitive skin types only and it does not account for potential long-term effects such as skin cancer.

Over the last two decades, a growing number of countries have introduced regulations to reduce public’s sunbed exposure (such as limitation of UVB output, age restrictions for access to sunbeds, or special taxes). By January 2014, 14 European countries including Austria had passed legislation prohibiting the use of commercial sunbeds by minors. *‘There are some indications that restrictions in sunbed use may succeed in reducing prevalence of use and, eventually, associated risks’*,<sup>14,15,16</sup> added Dr. Suppa.

*‘There are two main problems with the current European regulatory framework for sunbeds,’* continued Dr. Suppa. *‘Firstly, legislation of sunbed use is not yet harmonised within the EU and not all Member States respect the limit for total effective irradiance of 300 mW/m<sup>2</sup>. In many countries unstaffed machines are not banned, declaration/registration of the tanning facilities is not required and not all Member States restrict sunbed access to those over 18 years of age. Secondly, even where stringent regulations are in place compliance may be poor in terms of UVR emission of devices and respecting the under-18 ban,’* he explained.

Earlier this year, the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR)<sup>1</sup> published a preliminary opinion on the biological effects of sunbeds for cosmetic use. The published opinion concluded that:

- UV is a complete carcinogen, both an initiator, and a promoter.

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<sup>1</sup> SCENIHR provides scientific opinions to the European Commission on emerging or newly identified health and environmental risks and on broad, complex or multidisciplinary issues requiring a comprehensive assessment of risks to consumer safety or public health and related issues not covered by other Community risk assessment bodies.

- There is strong evidence that sunbed exposure causes skin melanoma, squamous cell carcinoma and, to a lesser extent, basal cell carcinoma, more especially when first exposure takes place in younger ages.
- There is moderate evidence that sunbed exposure may also cause ocular melanoma.
- Sunbed use is responsible for a noticeable proportion of both melanoma and non-melanoma skin cancers and for a large fraction of melanomas arising before the age of 30.
- The many severe adverse effects of sunbeds more than outweigh the small, potentially beneficial, effects of sunbed use. There is no need to use sunbeds to induce Vitamin D. On the contrary, UV overexposure may even reduce the vitamin D level.
- Because of evidence of the carcinogenic effects of sunbed exposure and of the nature of skin cancer induction (there are no indications for threshold levels of UV-irradiance and UV-dose), there is no safe limit for UV irradiance from sunbeds.

This opinion was offered for a public consultation. The European Academy of Dermatology and Venereology, in collaboration with EUROMELANOMA, the European Dermatology Forum and the European Association of Dermato-Oncology submitted an official letter, fully supporting the conclusions of the opinion. Currently, interested stakeholders are waiting for the final opinion to be published.

*'Our first goal right now is to make the sunbeds industry admit that they are selling a product that can cause skin cancer and enhance addictive behaviours. To this matter, the parallelism with tobacco smoking industry is quite interesting,'* concluded Dr. Suppa.

#### About the Speaker:

Dr. Mariano Suppa is an Italian dermatologist, working in Brussels, Belgium for the last 4 years. He recently focused his research activity on skin cancer risk factors, in particular sunbed use and its associated risks. He has published 25 papers in peer-reviewed journals, most of them being about skin cancer risk factors and prevention. Dr Suppa is involved in the Euromelanoma skin cancer prevention campaign since 2010.

Recently he represented EADV, EDF, EADO and Euromelanoma at the Public Hearing on the preliminary opinion of the EU Commission's SCENIHR on sunbed regulation in Europe.

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#### About EADV

Founded in 1987, EADV is a non-profit association whose vision is to be the premier European Dermato-Venereology Society, with the key aims of improving the quality of patient care, providing continuing medical education (CME) for all Dermato-Venereologists in Europe, and advocacy on behalf of the specialty and patients.

The membership concept has been broadened to include all areas of Europe and elsewhere, and the development of alliances and affiliations with other organisations.

For further information about the Academy, please contact us under +32 2 650 00 90 or visit [www.eadv.org](http://www.eadv.org)

1. IARC. The association of use of sunbeds with cutaneous malignant melanoma and other skin cancers: A systematic review. *Int J Cancer* 2007; 120: 1116-22
2. El Ghissassi F, Baan R, Straif K et al. A review of human carcinogens--part D: radiation. *Lancet Oncol* 2009; 10: 751-2
3. Wehner MR, Chren MM, Nameth D et al. International Prevalence of Indoor Tanning: A Systematic Review and Meta-analysis. *JAMA Dermatol* 2014; 150: 390-400.
4. Suppa M, Gandini S, Bulliard JL et al. Who, Why, Where: An Overview Of Determinants Of Sunbed Use In Europe (submitted, 2016)
5. Boniol M, Autier P, Boyle P et al. Cutaneous melanoma attributable to sunbed use: systematic review and meta-analysis. *Bmj* 2012; 345: e4757.
6. Murray CD, Turner E. Health, risk and sunbed use: a qualitative study. *Health Risk Soc* 2004; 6: 67-80.
7. Heckman CJ, Egleston BL, Wilson DB et al. A preliminary investigation of the predictors of tanning dependence. *Am J Health Behav* 2008; 32: 451-64.
8. Kaur M, Liguori A, Lang W et al. Induction of withdrawal-like symptoms in a small randomized, controlled trial of opioid blockade in frequent tanners. *J Am Acad Dermatol* 2006; 54: 709-11.
9. Lin JY, Fisher DE. Melanocyte biology and skin pigmentation. *Nature* 2007; 445: 843-50.
10. Ashrafioun L, Bonar EE. Tanning addiction and psychopathology: Further evaluation of anxiety disorders and substance abuse. *J Am Acad Dermatol* 2014; 70: 473-80.
11. Mosher CE, Danoff-Burg S. Addiction to indoor tanning: relation to anxiety, depression, and substance use. *Arch Dermatol* 2010; 146: 412-7.
12. Mosher CE, Danoff-Burg S. Indoor tanning, mental health, and substance use among college students: the significance of gender. *J Health Psychol* 2010; 15: 819-27.
13. Warthan MM, Uchida T, Wagner RF, Jr. UV light tanning as a type of substance-related disorder. *Arch Dermatol* 2005; 141: 963-6.
14. Cokkinides V, Weinstock M, Lazovich D et al. Indoor tanning use among adolescents in the US, 1998 to 2004. *Cancer* 2009; 115: 190-98.
15. Héry C, Tryggvadóttir L, Sigurdsson T et al. A Melanoma Epidemic in Iceland: Possible Influence of Sunbed Use . *Am J Epidemiol* 2010; 172:762-67.
16. Guy GP Jr, Berkowitz Z, Tai E et al. Indoor tanning among high school students in the United States, 2009 and 2011. *JAMA Dermatol.* 2014; 150:501-11.