

More than skin deep: There's no such thing as a 'safe' suntan, researchers warn

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There may be no such thing as a 'safe' tan based on ultraviolet (UV) radiation, according to a series of papers published in the October issue of *Pigment Cell & Melanoma Research*, the official journal of The International Federation of Pigment Cell Societies (IFPCS) and the Society for Melanoma Research.

The authors of the three review papers – leading researchers in the fields of cell biology, dermatology and epidemiology – have examined the effects on skin of UV radiation, including that from indoor tanning beds. As well as highlighting the need for greater research into this area, they have called for the use of such beds by under-18s to be banned, along with any publicity that claims that tanning beds are safe.

Exposure to UV radiation, for example, from sunbathing or using an indoor tanning bed, affects the skin in a number of ways, including causing DNA damage, photoaging (damage to the skin from chronic exposure to sunlight) and skin cancer. UV radiation is the most ubiquitous carcinogen (cancer-causing agent) for humans, in whom skin is the organ most commonly affected by cancer.

Although more research is required, published data suggest that indoor tanning beds, which are used most by young women, are linked to an increased risk of melanoma (the most dangerous form of skin cancer), and do not support the idea that tanning beds are safe.

In one of three papers in the series published today, Dr David E Fisher, dermatologist and president of the Society of Melanoma Research, and colleagues from the Massachusetts General Hospital, Boston have explored the social issues and molecular mechanisms related to tanning caused by UV exposure. Reviewing published data in the field, the authors report that both tanning and skin cancer seem to begin with the same event – DNA damage caused by UV exposure.

This leads them to suggest that a 'safe' tan with UV may be a physical impossibility.

The authors conclude: "UVR [ultraviolet radiation] exposure represents one of the most avoidable causes of cancer risk and mortality in man. Whereas genetic and other factors undoubtedly contribute importantly to skin cancer risk, the role of UV is incontrovertible, and efforts to confuse the public, particularly for purposes of economic gain by the indoor tanning industry, should be vigorously combated for the public health."

Source: Wiley

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