

Recommendation for Better Protection: Outdoor Workers Particularly Vulnerable to Melanoma, Study Finds

As the sun rises higher in the sky this spring, UV exposure increases. This should be addressed with proper sun protection. New data shows that people who work outdoors frequently are at a significantly higher risk of developing melanoma on their faces. At the same time, many affected individuals lack awareness of the risks and fail to use systematic sun protection. Experts are therefore calling for targeted prevention measures in high-risk occupations. The National Center for Tumor Diseases (NCT) Heidelberg is a joint institution of the German Cancer Research Center (DKFZ), the Heidelberg University Hospital (UKHD), the Heidelberg Medical Faculty of the Heidelberg University and the Thoraxklinik Heidelberg.

With the first sunny days of spring, exposure to ultraviolet (UV) radiation increases—and with it, the risk of skin cancer. People who spend a lot of time outdoors for work are particularly affected. A recently published study involving 406 patients with melanoma clearly shows: People in outdoor occupations have an increased risk, especially for tumors on the face. While non-melanoma skin cancer is recognized as an occupational disease for people working outdoors, this is not yet the case for melanoma due to insufficient data.

Among employees who regularly work outdoors, melanomas on the face occurred more than twice as frequently as among those who work primarily indoors. In addition, a clear dose-response relationship was observed: the longer people were exposed to the sun over the course of their working lives, the higher their risk. On average, people with facial melanomas had worked outdoors twice as long as those with tumors on other parts of the body.

In contrast, UV exposure during leisure time showed no significant influence on the risk of facial melanomas in this analysis. Rather, regular, work-related sun exposure appears to be the decisive factor—for example, in professions such as construction, agriculture, or horticulture.

The low level of risk awareness is concerning: More than half of the respondents did not know before their diagnosis that UV radiation can cause skin cancer. Consistent with these survey results, only five percent of people working outdoors reported using sunscreen regularly, while 56 percent use it rarely or never.

Susanne Dugas-Breit, a researcher at Heidelberg University's Faculty of Medicine and a dermatologist at the Department of Medical Oncology, Heidelberg University Hospital, NCT Heidelberg, is the first author of the publication. She says: "For people who work outdoors every day, the maximum dose of UV radiation recommended by the World Health Organization is regularly exceeded by a factor of five. No other carcinogenic factor in occupational settings violates the limit values to this extent. This makes it all the more important to raise awareness of the risks and consistently implement simple protective measures."

In Germany, approximately 12 percent of the workforce works primarily outdoors—that's 5.5 million people. Their annual UV exposure can be significantly higher than that of indoor workers. Experts therefore see an urgent need for action: prevention programs and awareness campaigns must be specifically tailored to the risks faced by these occupational groups.

Concrete countermeasures include, for example, shading the workplace with sun sails where possible, wearing protective clothing such as wide-brimmed hats and long-sleeved garments, and applying sunscreen with a high SPF. The goal is to prevent skin cancer early on and thus reduce the number of cases in the long term.

Publication:

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