

# **EWFA**

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# Statement on Skin Cancer Situation in Europe and Health Benefits of Window Films

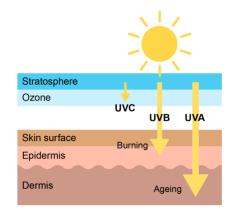
# **Skin Cancer in Europe: A Worrying Situation**

Skin cancer rates in Europe have been on the rise over the past few decades, making it a growing concern for public health. Over 100,000 cases of melanoma skin cancer were registered in the European Union in 2020, while over 16,000 deaths were recorded across the continent that same year.

The European Commission estimates that skin melanoma (the most serious type of skin cancer) accounted for 4% of all new cancer diagnoses in EU-27 countries in 2020<sup>1</sup> and for 1.3% of all deaths due to cancer<sup>2</sup>. This made it the sixth most frequently occurring cancer and one of the 15 most frequent causes of cancer death.

One of the primary causes of skin cancer is exposure to ultraviolet (UV) radiation from the sun.

## **Understanding UV Radiation and Its Effects**



Cancer Research UK

Figure 1: UV Radiation. Source: Cancer Research UK.

<sup>&</sup>lt;sup>1</sup> For all cancers, excluding non-melanoma skin cancers.

<sup>&</sup>lt;sup>2</sup> Source: European Union, "Skin melanoma burden in EU-27", 2021.

Two main types of UV ray exist. Both types can damage our skin and cause skin cancer:

- UVB reaches the outer layer of the skin (the epidermis) and causes most sunburns.
- UVA reaches deeper into the inner layer of the skin (the dermis, see Figure 1 above). It is responsible for ageing the skin (premature ageing, wrinkles) but contributes less towards sunburn.

There is a third type of UV ray called UVC, but it is completely blocked out by the ozone layer and does not reach the earth's surface.

Due to higher sun sensitivity<sup>3</sup>, Northern and Western European countries are the most impacted by skin cancer, counting with the highest skin cancer rates in the world (see Figure 2 below). Although skin cancer can occur in people of all skin types, people with lighter skin colour are at a greater risk of developing skin cancer.

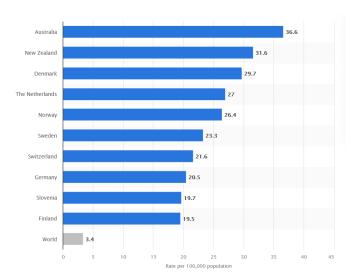


Figure 2: Rates of skin cancer in the countries with the highest rates of skin cancer worldwide in 2020 (per 100,000 population).

Source: Statista, 2023.

Other populations at risk notably include children (sunburns in children are shown to significantly increase the risk of melanoma development in adult life<sup>4</sup>) or populations with a higher exposure to the sun's radiations (outdoors jobs, or jobs involving vehicles (taxi or truck drivers)).

### The Health Benefits Brought by Window Films

While it is essential to protect from the sun when outdoors, protection from UV radiation inside buildings or vehicles is therefore equally important, as UVA and UVB rays can pass through unprotected glass windows.

Window films are thin, multi-layered sheets that can be applied to windows in buildings and vehicles. High-quality window films can block up to 99% of UV rays, providing an effective barrier against harmful radiation. By investing in high-quality window films and taking proactive

<sup>&</sup>lt;sup>3</sup> Source: Bieliauskiene G., Holm-Schou A.S., Philipsen P.A., Murphy G.M., Sboukis D., Schwarz T., Young A.R., Wulf H.C. Measurements of sun sensitivity in five European countries confirm the relative nature of the Fitzpatrick skin phototype scale. Photodermatol. Photoimelanomaunol. Photomed. 2020;36:179–184. doi: 10.1111/phpp.12529.

<sup>&</sup>lt;sup>4</sup> Source: Tripp MK, Peterson SK, Prokhorov AV, Shete SS, Lee JE, Gershenwald JE, Gritz ER. <u>Correlates of Sun Protection and Sunburn in Children of Melanoma Survivors</u>. Am J Prev Med. 2016 Sep;51(3):e77-85. doi: 10.1016/j.amepre.2016.02.032. Epub 2016 Apr 7. PMID: 27067306; PMCID: PMC5482415.

steps to reduce UV exposure, we can create safer and more comfortable indoor environments for everyone.

High-quality window films can also perform differently in terms of transparency (measured thanks to the Visible Light Transmittance, or VLT) or solar heat rejection (measured thanks to the Total Solar Energy Rejection, or TSER). A variety of window films exist, from completely clear window films which can block up to 99% of UV rays, with different VLT or TSER levels. In such a way, indoors can be UV protected and filter light and heat.



Picture 1: Natural light filtering and UV blocking with window films for buildings.

#### Other Benefits of Window Films

Energy Efficiency: Window films can improve the energy efficiency of buildings by reducing cooling needs in the summer and retaining heat in the winter, leading to lower energy bills and reduced carbon emissions.

Glare Reduction: Window films can reduce glare from the sun, making indoor spaces more comfortable, improving visual comfort and productivity.

Natural Light: Window films allow to maintain a high level of natural light indoors.

Reduced Fading: Blocking UV rays is not only beneficial for humans or animals, but also reduces fading and damages to floors, furniture, carpets, or artwork.

#### Sources

Euronews, Skin cancer: Which EU countries have the highest melanoma incidence and mortality rates?, 2023.

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National Center for Biotechnology Information, <u>Melanoma Mortality Trends in 28 European</u> Countries: A Retrospective Analysis for the Years 1960–2020, 2023.