

14 ways you can help prevent cancer



Recommendation 8 for Individuals on Sun exposure

**Avoid too much sun exposure, especially for children.
Use sun protection. Never use sunbeds.**

Key summary

- Ultraviolet radiation (UV) from sunlight, as well as from sunbeds, is the most important risk factor for skin cancer. This type of cancer is becoming more and more frequent in Europe.
- The higher the sun exposure, the higher the associated risk. Avoid too much sun exposure, notably around noon when the sun intensity is highest.
- Protect your skin during outdoor activities, by seeking shade, using hats, sunglasses and clothes that cover the skin. Sunscreen should be used if you cannot avoid direct sun exposure, such as during outdoor work or gardening.
- Children are particularly vulnerable and need to be protected through shade structures and physical measures.
- UV radiation from sunbeds damage the skin and increase skin cancer risk. Never use them.

Ultraviolet (UV) radiation and cancer

Radiation from the sun contains invisible ultraviolet (UV) radiation. UV radiation causes damage to the skin that, in the long term, can lead to skin cancers, the most common type of cancer in fair-skinned populations around the world. Melanoma and non-melanoma skin cancers are the most prevalent cancers in most EU Member States and their incidence has been increasing over the past decades.

In fair-skinned populations, up to 95% of keratinocyte skin cancers and 70–95% of cutaneous melanomas are caused by UV radiation. Therefore, a large proportion of these cancers can be prevented by reducing unnecessary, excessive UV exposure. In 2022, melanoma skin cancer constituted 3.4% of all cancers in the EU. In the same year this resulted in 16,743 deaths.

Exposure to UV radiation from the sun has many negative effects on your skin, of which the most immediate ones are tanning or burning. Anyone can get sunburnt; however, the risk varies based on how sun-sensitive your skin is and how strength of the sun's UV exposure.

There is also strong evidence that sunbed exposure causes skin melanoma, squamous cell carcinoma and, to a lesser extent, basal cell carcinoma, at all ages and especially when the first exposure takes place in younger ages. The use of sunbeds increases the risk of skin cancer, especially if such use starts before the age of 35 (~59% increase in melanoma risk).

Co-benefits for other non-communicable diseases (NCDs) with similar risk factors and opportunities for health promotion

Excessive UV exposure from the sun and sunbeds may alter immune responses, which could potentially affect autoimmune disorders.

Actions to reduce your cancer risk

Avoid too much sun exposure: how much is 'too much sun' depends on your skin type, the strength of the sun, and your location (ultraviolet index; UVI). The amount of damage increases with longer duration of sun exposure, and the damage will be more intense if exposure takes place when the sun is very strong, such as around noon (e.g., between 11:00 and 15:00) and in the summer months.

Protect your skin during all outdoor activities: Stay in the shade to protect yourself from strong, direct sunlight, particularly in the summer months. If you go into the sun, wear loose clothing with long sleeves made from tightly woven fabric. Use a wide-brimmed hat. Wear sunglasses with UV protection to shield your eyes. If you work outdoors (for example in construction or gardening), you are often heavily exposed to sun (e.g. during summer months). Therefore, protect yourself carefully. When possible, use a sunscreen with a Sun Protection Factor (SPF) of at least 15 for everyday activities and an SPF of 30 or higher during sunny holidays. Remember, sunscreens are meant to protect you from direct exposure to the sun when it cannot be avoided, not to extend your time in the sun.

Protect children from excessive sun exposure: As the skin of children is particularly sensitive to sunlight, ensure that they are well protected. In schools as well as sports grounds, make use of shade structures in summer. Engage in education that focuses on ways to avoid too much sun exposure and regularly use physical protection for your children (e.g. textiles, hats, sunglasses, and the proper use of sunscreens).

Never use sunbeds: Sunbeds are machines designed to emit UV radiation. This UV radiation has the same damaging effects on your skin as natural sunlight and, as it is unnecessary exposure, should be avoided at all times. Tanning on a sunbed does not provide a better base for later additional tanning in the sun,

and there is no such thing as a safe tan. The use of sunbeds to increase your vitamin D level is unnecessary and is strongly discouraged. The same type of UV radiation induces a suntan but also increases your risk of skin cancer and damages your skin.

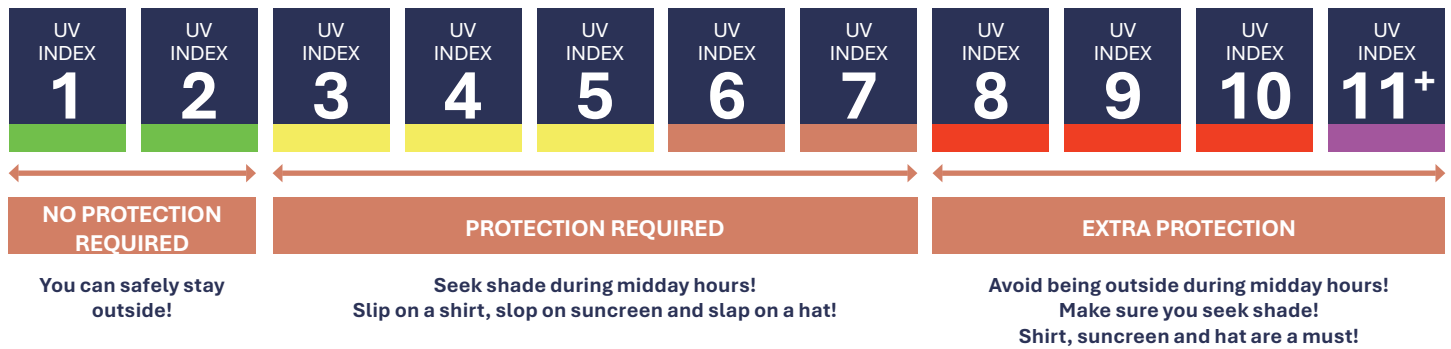


Figure 1: The UV Index: a global monitoring and protection tool. Reproduced from *Global Solar UV index: A Practical Guide*, WHO, Geneva, Switzerland, Copyright (2002)

The Global Solar UV Index, or UV Index, expresses the measured or predicted amount/intensity of the UV radiation from the sun at a particular place on a particular day. In many countries, it is reported in daily weather forecasts, particularly in summer, to inform the general public about the intensity of the sun and the levels of sun protection measures needed. Many weather forecasts on the Internet include information about the UV Index. For example, at a UVI of 6, which is easily reached at noon in spring and summer, a person with skin type 1 or 2 will suffer from sunburn in 10–15 minutes. In the figure, the levels of the UV Index are explained and corresponding suggestions for the necessary protection measures are given.

Learn about the policies that help support reducing your exposure to UV radiation

Effective policies that decrease exposure to solar and artificial UV play a significant role in reducing cancer risk and improving overall health. Some examples are:

- Collective protection from sun exposure at the local level: Investment in infrastructure such as shading and increasing greening provides sun protective benefits.
- Reduce exposure of workers to solar and artificial UV radiation: Advocate for measures such as shading and access to UV clothing at your workplace, especially if you spend a lot of time outdoors.
- Public Awareness Campaigns: Raise awareness and knowledge of solar and artificial UV radiation exposure and cancer risk to motivate positive sun protective behaviours and reduce exposure.

References

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Myths versus Facts

MYTH: You are safe from UV sun exposure on a cloudy day or under a parasol.

FACT: On a cloudy or foggy day, you might still get sunburned because up to 80% of the UV radiation passes through clouds or mist. A parasol used on a beach blocks about 40–50% of the UV radiation. The rest reaches the skin by passing through the parasol or being reflected by the sand.

MYTH: You need to spend extended amount of time in the sun, without protection, to get the recommended dose of Vitamin D.

FACT: Generally, just a little time spent outdoors is sufficient to avoid deficiencies. If you are a healthy person who regularly goes outdoors, your vitamin D production is sufficient. Vitamin D is produced very quickly in the skin upon sunlight exposure; you don't need to seek extra exposure to maintain your vitamin D levels. For example, being outside daily at noon time for about 10-15 minutes in spring and summer (with your face, arms and legs unprotected) is usually enough to produce sufficient vitamin D.

MYTH: Your risk is reduced if you only stay long enough in the sun to get a 'healthy tan'.

FACT: Tanning of the skin is a protective reaction of the skin to damage caused by UV radiation from the sun or intense artificial UV sources (like sunbeds). Therefore, a tanned skin is a sign of sun damage, and there is no such thing as a "healthy tan". If the sun exposure is intense and for a longer duration, you will develop a sunburn.

MYTH: People with darker skin do not get sunburnt

FACT: Anyone can get sunburnt – including people with darker skin. Generally, people with lighter skin tones are at higher risk of sunburn. But just because people with darker skin tones might have a lower risk, doesn't mean there is no risk at all.

MYTH: UV lamps used for gel nail manicures and extensions can cause skin cancer.

FACT: Although these lamps give out UV radiation, it is very unlikely that someone would develop skin cancer after using them, even if they did so on a regular basis. UV nail lamps give out far less radiation than people are exposed to when they are outside in the sun or using a sun bed, so the overall risk to your health remains low.