

## **Prevention guidelines**

### **Can melanoma be prevented?**

The genetically determined risk factors for melanoma, such as having a fair complexion, numerous moles and a family history of melanoma, cannot be modified or eradicated. However, we can significantly reduce the risk of developing melanoma by following these prevention guidelines.

### **Exposure to the sun (insolation)**

Sudden, intensive and direct exposure to the sun should definitely be avoided. The main objective is to prevent sunburns, i.e. skin redness after sun exposure. The most harmful sunburns are those that produce blisters or pain for at least 48 hours. Therefore, it is wise to avoid prolonged direct exposure to sunlight, especially between 11am and 3pm.

### **Sunscreen**

Sunscreen should have the highest sun protection factor – factor 15-30 for adults, 30-50 for children – and provide equal protection from UVA and UVB rays. The adequate sunscreen effect appears around half an hour after the application and does not last all day but only two to three hours. Accordingly, the sunscreen should be applied half an hour before going out into the sun and repeated every two to three hours.

### **Shade/temperature**

It should be stressed that being under an umbrella in an open environment such as at the beach or the snow will still lead to sunburn from reflected UV rays unless additional sun protection measures are employed. Likewise, the sun's rays do penetrate clouds in significant amounts, and hence there is still a tendency for skin become sunburnt even on overcast spring/summer days. Besides, UV rays do not produce hot sensation on the skin (infrared rays are the responsible ones) and see breezes may confer a false sensation of safe sun exposure.

### **Clothing**

Clothing provides the best protection from intensive sunlight. T-shirts are better than sleeveless clothes. Darker coloured clothing provides better protection than light coloured clothing. The material should preferably be tightly woven and with certified UV protection. It is good to wear a wide-brimmed hat and Polaroid sunglasses (since UV rays are also harmful to the eyes). Today, clothing for children, including swimwear, with inbuilt sun protection (up to factor 50) is available on the market.

### **Skin type**

Generally, the rule is that skin must be gradually accustomed to the sun's rays. Skin that has tanned gradually and continuously can sustain UV rays up to 10 times better than untanned skin. But it is a fact that not all the people have the same skin. Everyone should also know the specific personal protection time that applies to his or her skin type, in other words, how long unprotected exposure to the sun could be considered safe. The skin type is characterized by how easily get sunburn and tan after around half an hour of sun exposure at noon in a summer day. It might be identified by various characteristics, such as hair colour or fairness of complexion.

The skin is classified in four different types:

Skin type 1:

- The skin is extremely sensitive to the sun, does not tan but goes red
- People usually has fair skin, often with freckles, blond or red hair and blue or green eyes

Skin type 2:

- The skin is sensitive to the sun, tans slowly and is prone to sunburn
- Fair skin, but a little darker than skin type 1 with usually blond to dark blond hair and blue eyes

Skin type 3:

- The skin is only slightly sensitive to the sun, tans easily and quickly, the tan lasts a long time
- Slightly darker complexion, generally with dark blond to brown hair and various eye colours

Skin type 4

- The skin is robust, tans quickly and deeply, the tan lasts a long time
- Light brown skin
- The hair and eyes are dark brown or black

### **Children and young people**

The main risk of developing skin cancer is established during childhood and younger years. That is why children and young people should be particularly careful and use effective waterproof and physical sunscreens with the highest sun protection factor that protect from both UVA and UVB rays. Wearing a dark T-shirt and a sun hat should be the rule. Quality sunglasses are ideal for protecting the eyes – adults can act as role models here.

### **Cosmetics and medicines**

Certain medicines increase sensitivity to light. This is something that should be discussed with a doctor or pharmacist before exposing oneself to the sun.

Deodorants, cosmetics and perfumes can cause an unpleasant reaction to the sun or permanent pigmentation. Application of such products should therefore be avoided before sunbathing.

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