



Melanoma: Prevention and Risk Factors (leaflet 1 of 7)

Patient information from the British Association of Dermatologists

Produced for National Cancer Patient Information Pathways, National Cancer Action Team

Melanoma leaflets in this series, produced by the British Association of Dermatologists:

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Melanin, the skin's pigment or colour, is made in the skin by pigment cells called 'melanocytes'. After our skin is exposed to sunlight, the melanocytes make more melanin, and so the skin becomes darker.

Melanocytes sometimes grow together in harmless groups or clusters, which are known as 'moles'. Most people have between 10 and 50 moles and often they are darker than the surrounding skin.

Melanomas can come up in or near to a mole, but can also appear on skin that looks quite normal. They develop when the skin pigment cells (melanocytes) become cancerous and multiply in an uncontrolled way.

The most important cause which we can prevent is exposure to too much sunshine. This is because the sun produces ultraviolet (UV) light which damages the skin.

The use of artificial sources of ultraviolet light, such as sun beds, also raises the risk of getting a skin cancer.

Risk factors:

Some people are more likely to get a melanoma than others:

- People who burn easily in the sun are particularly at risk. Melanoma occurs most often in fair-skinned people who tan poorly. Often they have blond or red hair, blue or green eyes, and freckle easily. Melanomas are less common in dark-skinned people.
- Past cases of severe sunburn, often with blisters, and particularly in childhood, increase the risk of developing a melanoma. However, not all melanomas are due to sun exposure, and some appear in areas that are normally kept covered.
- People with many (more than 50) ordinary moles have a higher than average chance of getting a melanoma.
- People with a very large birthmark have a raised chance of developing a melanoma within the birthmark.
- Some people have many unusual (atypical) moles, known as 'dysplastic naevi'. They tend to be larger than ordinary moles, to be present in large numbers, and to have irregular edges or colour patterns. The tendency to have these 'dysplastic naevi' can run in families and carries an increased risk of getting a melanoma.
- The risk is raised if another family member has had a melanoma. About 1 in 10 people with a melanoma have family members who have also had one. There are several reasons for this. Fair skin is inherited; dysplastic naevi can run in families, as can a tendency to have large numbers of ordinary moles.
- People who have already had one melanoma are at an increased risk of getting another one.
- People with a damaged immune system (e.g. as a result of an HIV infection or taking immunosuppressive drugs, perhaps after an organ transplant) have an increased chance of getting a melanoma.

Knowing your skin type

Not everyone's skin offers the same level of protection in the sun. That's why you need to know your 'skin type'. While not everyone falls into one specific skin type, it gives you an idea of how much care you need to take in the sun. Your skin type cannot be changed and does not vary

according to how tanned you are – it is determined by your genes. It affects how your skin will react in the sun and how likely you are to develop skin cancer.

- Type I: pale skin, burn very easily and rarely tan. They generally have light coloured or red hair and freckles.
- Type II: usually burn but may gradually tan. They are likely to have light hair, and blue or brown eyes. Some may have dark hair but still have fair skin.
- Type III: burn with long exposure to the sun but generally tan quite easily. They usually have a light olive skin with dark hair and brown or green eyes.
- Type IV: burn with very lengthy exposures but always tan easily as well. They usually have brown eyes and dark hair.
- Type V: have a naturally brown skin, with brown eyes and dark hair. They burn only with excessive exposure to the sun and their skin further darkens easily.
- Type VI: have black skin with dark brown eyes and black hair. They burn only with extreme exposure to the sun and their skin further darkens very easily.

Skin types I and II are at the greatest risk of developing skin cancer. These skin types sunburn rapidly and therefore need to protect the skin with clothing. Skin types III and IV should protect themselves in strong sunshine. Types V and VI generally need only protect themselves when outdoors in the sun for a long time.

Prevention:

The best way to protect against melanoma is to avoid getting too much sun. This does not mean that you can't ever go on a sunny holiday again, it just means that you need to be careful to avoid burning. You can do this by covering yourself up, spending time in the shade and using sun protection products. Skin types I and II in particular need to take extra care when it's sunny.

Protect the skin with clothing, including a hat, T shirt and UV protective sunglasses:

- Wear long sleeves, use a hat when out in the sun, and wear long trousers rather than shorts. Use clothing with a tight weave that will block ultraviolet light.
- Seek shade between 11am and 3pm when it's sunny.
- Use a sunscreen of at least SPF 30 which also has high UVA protection. Put it on half an hour before going out and reapply it at least every 2 hours, but don't use sunscreen as

an excuse to stay out in the sun. Sunscreens should not be used instead of clothing and shade, rather they offer extra protection. No sunscreen will provide 100% protection.

- Keep babies and young children out of direct sunlight.

For more information, please contact:

British Association of Dermatologists

4 Fitzroy Square, London W1T 5HQ

website: www.bad.org.uk

tel: 0207 383 0266

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