The aim of this leaflet

This leaflet is designed to help you understand more about melanoma. It will tell you what melanoma is, what causes it, and what can be done to prevent it.
What is melanoma?

Melanoma is a type of skin cancer that originates from melanocytes (cells in the skin that produce a pigment called melanin). It affects both young adults and older people. In men, melanoma is often found on the trunk or the head and neck. In women, melanoma develops most often on the arms and legs.

How common is melanoma?

Skin cancer is the most common type of malignancy, accounting for approximately 75% of all forms of cancer. Melanoma is one of the least frequent forms of skin cancer. The incidence of this tumour is 20-25 new cases per 100,000 inhabitants each year in Europe. The number of cases is estimated to double over a period of 10 years. Melanoma is the second most common cancer in women aged 15-34.

Who is affected by melanoma?

The following are risk factors for developing melanoma:
1. UV radiation from sunshine and sunbeds
2. Fair skin that burns easily, does not tan, or tans poorly
3. Sunburns (especially during childhood)
4. Family and/or personal history of melanoma
5. Having many small or large moles
6. Having a weakened immune system.

What does melanoma look like, and what are the signs and symptoms?

Melanoma may develop on normal skin or from an existing mole. Melanoma (not the nodular form) is often positive for two or more “ABCDE rules” (see pictures below):

- **Asymmetry** - the shape of a melanoma is often asymmetrical and uneven, in contrast to a mole which is usually round and even.
- **Border** - a mole has a well-defined edge. Melanoma borders are often notched or blurred.
- **Colour** - a mole usually has one uniform colour (light brown or dark brown), in contrast to melanoma which is often not uniform, with shades of both brown and black.
- **Diameter** - the diameter of a melanoma may be of any size, but is usually larger than 5 mm and continues to grow.
- **Evolution** - any change in shape, size (vertical or horizontal), colour, or any new symptoms such as itching, bleeding, or ulceration are typical for melanoma.

How can I recognize melanoma on my skin?

Melanoma typically grows uncontrollably over weeks to months and thus often has a disorganized appearance. Normal, harmless skin lesions are usually numerous and look like each other. In contrast, as a melanoma grows, it often “stands out” and appears different compared to harmless lesions next to it.
If you identify a spot on your skin with unusual features compared to other things on your skin, seek prompt medical advice.

**How is the diagnosis of melanoma made?**

Early detection of melanoma is crucial, as survival rates for melanoma drop substantially if it is detected at a late stage. Diagnosis of skin cancer primarily relies upon visual inspection from a trained dermatologist, which is then confirmed by examination with a hand-held or digital dermatoscope. Finally, histological examination of the removed tissue is made.

**How is melanoma treated?**

The treatment of choice is surgery. In thin melanomas, the tumour is cut out along with a certain safety margin (or area around it). In thicker melanomas, a larger operation with *sentinel* lymph node removal (nearest to the tumour) is needed. Following surgery, the patient is usually seen at regular intervals. In advanced melanomas, additional treatment is necessary including *radiotherapy* (treatment with radiation), *immunotherapy* (a treatment that aids your immune system in fighting cancer), or targeted therapy.

**Can melanoma be prevented?**

Melanoma is closely linked to UV light, therefore excessive sun exposure should be avoided by closely following these rules:

- Wear protective clothing when you are out in the sunshine.
- Stay in the shade between 11.00 a.m. and 3.00 p.m.
- Apply sunscreen with a sun protection factor (SPF) of 30 and SPF 50 for children, people with fair skin, or skin cancer history. Re-apply the sunscreen after bath or sweat or anyhow every 2 hours.
- Children in particular should be protected from the sun, since the most significant risk factor for the development of melanoma in adults is sunburn during childhood.

**What should I do if I notice any warning signs?**

You should see your dermatologist if your mole changes its shape, colour, border or size, or if you develop a new lump or patch on your skin.

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**Harmless spot: flat or elevated**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Melanoma</th>
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<tbody>
<tr>
<td>Usually symmetrical</td>
<td>Usually not symmetrical</td>
</tr>
<tr>
<td>Organized shape (e.g. round or oval)</td>
<td>Irregular disorganized shape</td>
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<tr>
<td>Usually one colour (e.g. brown)</td>
<td>Often many colours: light brown, pink, dark brown, black (Fig. 1-3)</td>
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<tr>
<td>Usually stable with little or no growth for years</td>
<td>Often grows or changes from weeks to months</td>
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**Fig. 1** Melanoma lack of symmetry, irregular shape

**Fig. 2** Some melanomas may appear pink

**Fig. 3** Multiple colours in melanoma