MELANOMA IN SITU

What are the aims of this leaflet?

This leaflet has been written to help you understand more about melanoma in situ. It will tell you what it is, what causes it, what can be done about it, and where you can find out more information.

What is melanoma in situ?

Melanoma in situ is the very earliest stage of a skin cancer called melanoma. 'In situ' means that the cancer cells have not had the opportunity to spread to anywhere else in the body.

About 7,000 people in the UK are diagnosed with melanoma each year. The word 'melanoma' comes from the Greek word 'melas', meaning black. Melanin is the pigment that gives the skin its natural colour. Melanin 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 arise 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. They can then invade the skin around them and may also spread to other areas such as the lymph nodes, liver and lungs.

In melanoma in situ, cancer cells are confined to the top layer of the skin (the epidermis) and are all contained in the area in which they began to develop. They have not started to spread or grow into deeper layers of the skin and have not

become invasive. The outlook is excellent. This is because there are no blood or lymphatic channels in the top layer of the skin via which the abnormal cells can spread.

Melanoma in situ can be cured if it is cut out (excised) completely. However if not removed with appropriate surgery, it can develop into an invasive cancer. This is why it is important to have melanoma in situ removed with a small rim of normal skin (an adequate surgical margin) and to know about preventative measures you can take which will lower your risk of another melanoma in the future.

What causes melanoma in situ?

The most important preventable cause is exposure to too much sunlight, especially during the first 20 years of life. People who have had a lot of sun burns are at particular risk. The use of artificial sources of ultraviolet light, such as sun beds, also raises the risk of getting a melanoma, even if the skin tans without burning.

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.
- Melanoma is more common in women than men. It is a very rare cancer in children, but it is the second most common cancer in people aged 15 to 34.
- The risk is increased if another family member has had a melanoma. People who have already had one melanoma are at an increased risk of getting another one.
- Some people have many unusual (atypical) moles. 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 moles can run in families and carries an increased risk of getting a melanoma. It is called the Atypical Mole Syndrome.
- Melanomas are less common in dark-skinned people. When they do occur they are often on the hand or foot, unusual sites for melanoma in fair-skinned people.
- Past episodes of severe sunburn, often with blisters, particularly in childhood, increase the risk of developing melanoma. However, not all melanomas are due to sun exposure and some may appear in skin that is not usually exposed to the sun.
- People with many (more than 50) ordinary moles, or with very large (greater than 20cm in diameter) dark hairy birthmarks, have a slightly higher than average chance of developing a melanoma.

- People with a suppressed 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 developing a melanoma.

Is melanoma in situ hereditary?

About 1 in 10 of people with a melanoma have family members who have also had one. There are several reasons for this. Fair skin is inherited, while atypical moles and a tendency to have large numbers of ordinary moles also run in families.

What are the symptoms of melanoma in situ?

Many melanomas start as minor changes in the size, shape or colour of an existing mole (see below); others begin as a dark area that can look like a new mole. Most in situ melanomas do not produce any symptoms, such as itching, pain, oozing or bleeding.

What does melanoma in situ look like?

The **ABCDE** system tells you some of the things to look out for, comparing melanoma in situ with an ordinary mole. A melanoma may show one or more of the following features:

- **A**symmetry – the two halves of the area differ in their shape.
- **B**order – the edges of the area may be irregular or blurred, and sometimes show notches.
- **C**olour – this may be uneven. Different shades of black, brown and pink may be seen.
- **D**iameter – most melanomas are at least 6 mm in diameter.
- **E**volution – rapid change in a pre-existing mole.

Melanomas can appear on any part of the skin but in men they are most common on the torso, and in women on the legs.

How is the diagnosis of melanoma in situ made?

If you are at all worried about changes in a mole, or about a new area of pigmentation appearing on your skin, you should see your GP promptly. The ABCDE changes listed above are sometimes to be found in completely harmless conditions, and your doctor may be able to put your mind at rest. However, if there is still any doubt, your doctor will refer you to a Consultant Dermatologist who will examine the area and decide whether it needs to be removed.

If the mole needs to be examined under a microscope, the whole of the suspicious area will then be removed under a local anaesthetic (a procedure known as excision) and sent to the laboratory to be examined. If the area is too large to remove easily, a sample of it (an incisional biopsy) will be taken. If a melanoma is found, the pathology report will provide information that will help to plan the next step in treatment.

Can melanoma in situ be cured?

Yes, the outlook for melanoma in situ is excellent. It is very rare for them to come back if they are removed completely. Furthermore, because they were 'in situ', they will not have had an opportunity to spread elsewhere in the body.

How should melanoma in situ be treated?

The treatment for melanoma in situ is surgical. There is no other treatment of proven benefit, and usually no other tests are needed. People who have had a melanoma in situ removed may need another operation, to ensure a wider margin and reduce the chance of the melanoma coming back at the original site. During the operation, some healthy skin will be removed from around the original scar to make absolutely sure that all of the melanoma has been taken away, and this makes the scar larger than before. Occasionally a skin graft will be needed.

Will I need a follow up visit?

The British Association of Dermatologists and other health organisations such as NICE (National Institute for Health and Clinical Excellence) state that, once an adequate margin has been achieved, people who have had a melanoma in situ do not normally need any follow up visits with their specialist. This is because in situ melanomas are very unlikely to come back once the area has been removed. Because melanoma in situ has an excellent outlook, you will usually be seen once again in clinic to discuss the result, and then discharged.

Self care (What can I do?)

Once your melanoma has been treated, you should be able to get back to a normal lifestyle quite quickly. You should also take a few sensible precautions to stop yourself getting another one, as outlined below.

- You should look at all areas of your skin once a month for moles that are growing, or changing in the ways listed in the ABCDE rules (see above). If you have any concerns, see your family doctor promptly.

- You must also protect yourself from too much sun. This means that you need to avoid sunbathing, sunburn and tanning. You can do this by covering yourself up with clothing and using sun protection creams, especially if on holiday in a hot country (see the 'top sun safety tips' below for more information).
- Do not use sun beds or tanning lamps, even if you tan easily.
- Share sun advice and other information with your relatives as they also may be at increased risk of getting a melanoma. In particular, protect your children from the sun, as exposure during childhood is especially damaging.
- Having had a melanoma does have some practical disadvantages. It can be difficult to obtain life or health insurance, particularly for the first five years after your diagnosis. It can also be difficult to obtain a mortgage. However, some insurance companies will be flexible so long as it is confirmed to them that you have only had a melanoma in situ, that it is not invasive and that it has been completely excised.

Top sun safety tips

- Protect your skin with adequate clothing, and don't forget to wear a hat that protects your face, neck and ears, and a pair of UV protective sunglasses. UV-protective clothing is easily obtainable in outdoor shops or online.
- Keep to the shade between 11am and 3pm when it's sunny. Step out of the sun before your skin has a chance to redden or burn. Keep babies and young children out of direct sunlight.
- When choosing a sunscreen look for a high protection SPF (SPF 30 or more) to protect against UVB, and the UVA circle logo and/or 4 or 5 UVA stars to protect against UVA. Apply plenty of sunscreen 15 to 30 minutes before going out in the sun, and reapply every two hours and straight after swimming and towel-drying.
- Sunscreens should not be used as an alternative to clothing and shade, rather they offer additional protection. Sunscreen will not provide 100% protection.
- The British Association of Dermatologists recommends that you tell your doctor about any changes to a mole or patch of skin. If your GP is concerned about your skin, make sure you see a Consultant Dermatologist – an expert in diagnosing skin cancer. Your doctor can refer you for free through the NHS.

Vitamin D advice

The evidence relating to the health effects of serum Vitamin D levels, sunlight exposure and Vitamin D intake remains inconclusive. Avoiding all sunlight exposure if you suffer from light sensitivity, or to reduce the risk of melanoma and other skin cancers, may be associated with Vitamin D

deficiency.

Individuals avoiding all sun exposure should consider having their serum Vitamin D measured. If levels are reduced or deficient they may wish to consider taking supplementary vitamin D3, 10-25 micrograms per day, and increasing their intake of foods high in Vitamin D such as oily fish, eggs, meat, fortified margarines and cereals. Vitamin D3 supplements are widely available from health food shops.

Where can I find more information about melanoma in situ?

It is completely normal not to remember what your doctor or the nursing staff tells you initially at diagnosis. For this reason, they will often say the same things to you a number of times. In many departments, a skin cancer specialist nurse is available to go through the information in more detail and to act as a point of contact for patients when needed.

This leaflet may not have answered all of your questions, but we hope that it has helped.

Links to patient support groups:

Macmillan Cancer Support
89 Albert Embankment
London, SE1 7UQ
Tel: 0808 808 2020 / 0808 800 1234
Web: www.macmillan.org.uk

Cancer Research UK
PO Box 123, Lincoln's Inn Fields London, WC2A 3PX
Tel: 020 7242 0200
Web: www.cancerhelp.org.uk

Other useful websites:

www.skincancer.org/melanoma
www.wessexcancer.org

For details of source materials used please contact the Clinical Standards Unit (clinicalstandards@bad.org.uk).

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

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