PATIENT INFORMATION LEAFLET

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 type of skin cancer called melanoma. The term "in situ" comes from Latin and means 'in place'.

Melanoma in situ can also be called stage 0 melanoma. It means that the cancer cells are only in the top layer of the skin and have not spread anywhere else in the body.

About 16,700 people in the UK are diagnosed with melanoma each year. It is the fifth most common cancer in the UK. The number of people diagnosed has increased over the last few decades. This is likely because of a few reasons:

- People are spending more time in the sun
- The way they protect themselves from the sun has changed
- Skin cancer referral pathways and keeping track of cancer has improved

Melanoma starts in the cells in the skin called melanocytes. These cells make a pigment called melanin. Melanin is what gives the skin its natural colour. It also helps to protect people's skin from ultraviolet light (UV radiation) from the sun.

After unprotected skin is exposed to sunlight, the melanocytes make more melanin, and so the skin becomes darker. This process of the skin becoming darker after sun exposure is known as 'sun tanning' or 'a suntan'.

Sometimes the cells that produce melanin grow together in harmless groups or clusters, which are known as moles. Most people have between 10 and 50 moles which are often darker than the surrounding skin.

Melanomas can arise in or near a mole but can also appear on skin that looks normal. They develop when the skin pigment cells (melanocytes) become cancerous and multiply in an uncontrolled way. If undetected or left, they can then spread to the skin around them. If left untreated, they may also spread to other body parts such as the lymph nodes, liver and lungs.

In melanoma in situ, cancer cells are confined to the top layer of the skin (known as the epidermis) and are all contained in the area in which they began to develop. As they have not started to spread or grow into deeper layers of the skin and have not become invasive, some doctors call melanoma in situ a *pre-cancer*.

Melanoma in situ can be cured if it is completely removed with surgery. . However, if the cancer cells are 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 some surrounding healthy skin. This makes sure all the cancerous cells are removed. It is also important to know about the steps you can take which will lower your risk of another melanoma in the future.

WHAT CAUSES MELANOMA IN SITU?

The main cause of melanoma in situ is exposure to too much ultraviolet (UV) light. This is especially true when skin is exposed to UV light during the first 20 years of life. UV light comes from the sun or sunbeds. There are ways you can prevent too much exposure to UV light. This includes limiting the use of sunbeds and using sun cream to protect from the sun's UV light.

In the UK, around 85 out of 100 melanomas are caused by too much UV light. People who get a lot of sun in short bursts, like going on holiday to a hot country once a year and spending lots of time in the sun, have a higher

risk than those who get regular sun exposure all year round.

People who have had a lot of sunburns, especially blistering sunburns in childhood, are also at risk. The use of artificial sources of ultraviolet light, such as sun beds, also increases the risk of getting melanoma, even if the skin tans without burning.

Some people are more likely to get melanoma than others:

- People who burn easily in the sun are at high risk of developing melanoma. Melanoma occurs most often in people with less pigmented skin. Often, people who have white skin, naturally blond or red hair, blue or green eyes, and freckles are at higher risk
- Melanoma is more common in young women (aged 20-54 years) than young men of the same age. However, it is more common in older men than older women (between the ages of 55-89 years).
- People who have a lot of moles (more than 100) have a slightly higher chance of developing melanoma compared to those with fewer moles.
- Some people have lots of unusual moles, called atypical moles. These moles are often bigger than normal ones, come in large numbers, and may have uneven edges or different colors. This can run in families and increases the risk of developing melanoma. This condition is known as atypical mole syndrome.
- The risk is increased if a close family member has had melanoma.
- People who have already had one melanoma are at an increased risk of getting another one.
- Some babies are born with or develop a very rare type of birthmark called a congenital melanocytic naevus. These tend to be dark and hairy. Large birthmarks of this type have an increased risk of developing into melanoma.
- Melanomas are less common in people with richly pigmented skin, such as brown or black. When they do develop, they often appear on the hands, feet or nails – places where melanoma is less common in people with less pigmented skin.
- People with a suppressed immune system (due to another health condition or are taking medicines that suppress the immune system) have an increased chance of developing melanoma.

IS MELANOMA IN SITU HEREDITARY?

Your risk of melanoma is higher if you have family members who have also had melanoma. There are several reasons for this. Fair skin is inherited. Also, a tendency to have large numbers of ordinary moles and having unusual moles runs in families.

WHAT DOES MELANOMA IN SITU FEEL AND LOOK LIKE?

Many melanomas start as minor changes in the size, shape or colour of an existing mole. Others begin as a darker area of skin that can look like a new mole. Most in situ melanomas do not have any symptoms at all.

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:

- Asymmetry – the two halves of the area differ in their appearance (for example, shape).
- Border – the edges of the area may be irregular, jagged or blurred, and sometimes show notches.
- Colour – this may be uneven and may show multiple different colours. Shades of black, brown and pink may be seen.
- Diameter – most melanomas are at least 6 mm in diameter.
- Evolution – rapid change in size, shape or colour of a pre-existing mole. Other changes such as bleeding, weeping, pain or itch are less common. You should seek advice if you have any of these symptoms.

Melanomas can appear on any part of the skin. Patterns vary, but they are often found on the head, neck and torso in men, and on the arms and legs in women.

HOW IS THE DIAGNOSIS OF MELANOMA IN SITU MADE?

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

If your dermatologist thinks the mole needs to be removed, they will usually take out the whole area under a local anaesthetic. This procedure is known as an excisional biopsy or excision. The removed skin tissue is then sent to the laboratory to be looked at under a microscope to see what type of cells are present, and if they are cancerous.

If the area is too large to remove easily, only a small piece of skin may be removed and sent to be examined (this is known as incisional biopsy). If the results show melanoma, the dermatologist will discuss the next steps with you. This may include further surgery to remove the whole area of affected skin.

CAN MELANOMA IN SITU BE CURED?

Yes, the outcomes for treating melanoma in situ are excellent. 'In situ' means it has not had the chance to spread to other parts of the body. Once removed completely, it is very rare for it to return. People who have had melanoma in situ have the same life expectancy as the general population.

HOW SHOULD MELANOMA IN SITU BE TREATED?

Melanoma in situ is treated with surgery. There is no other treatment which works as well as surgery, and usually no other tests are needed. People who have had a melanoma in situ removed frequently need a second surgery. This is called a 'wide local excision'. This surgery is done to remove a larger area of healthy skin tissue around where the melanoma was. Wide local excision is done to reduce the chance of the melanoma coming back at the original site. This surgery results in the scar being larger than before.

Occasionally, a skin flap (moving nearby skin to cover the wound), or a skin graft (taking skin from another part of the body to cover the wound) may be needed. Once enough skin tissue has been removed, no further treatment is necessary.

WILL I NEED A FOLLOW-UP VISIT?

Yes, following surgery you will usually be seen once again in clinic to discuss the results. During this appointment you will be given information and shown how to carry out regular self-examinations of your body. You will be able to ask any questions you may have. After this follow-up appointment you are usually then discharged. This means no further treatment or appointments are needed. This is in line with clinical guidelines from The British Association of Dermatologists and NICE (National Institute for Health and Clinical Excellence).

This is because treatment for melanoma in situ usually has a good outcome and is very unlikely to come back to the same area.

SELF-CARE (WHAT CAN I DO?)

Following your surgery, you should be able to get back to a normal lifestyle quite quickly. You should also take a few precautions to avoid getting another one, as outlined below.

- Check your skin once a month for new moles, or moles that are growing, or changing in the ways listed in the ABCDE rules (see above). If you have any concerns, see your GP as soon as possible,
- You must 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 protective clothing, avoiding the midday sun and using sun protection creams regularly, 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.

- Having had melanoma in situ 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 has not spread and that it has been completely removed. For more information about this speak to your healthcare professional.

Remember

Most skin cancers can be avoided if you follow these basic rules:

- Regularly check your skin for changes.
- Report any skin changes to your GP or nurse as soon as possible.
- Always protect your skin from the sun by using protective clothing (as below) and sun cream
- Do not use sunlamps or sunbeds

Top sun safety tips

Sun protection is recommended for all people. It is a good idea to protect the skin from further sun damage.

- Protect your skin with clothing. A wide-brimmed hat (that protects your face, neck and ears), long-sleeves, trousers, base layers, umbrellas and UV protective sunglasses are all useful.
- Spend time in the shade between 11 am and 3 pm when it is most sunny.
- It is important to avoid sunburn. Sunburn is a sign of damage to your skin and increases your risk of developing a skin cancer in the future. However, even a tan is a sign of skin damage and should be avoided.
- Use a 'high protection' sun cream of at least SPF (Sun Protection Factor) 30 which also has high UVA protection. This information will be on the bottle of sun cream. Make sure you apply the sun cream often and generously during the day. If you have an organ transplant, it is recommended to use SPF 50. This is because SPF 50 has both UVB and UVA protection all year round. Look for the UVA circle logo (shown below) and choose a sun cream with 5 UVA stars as well as a high SPF.

- No sun cream can offer you 100% protection. They should be used to provide additional protection from the sun and not as an alternative to clothing and shade.
- Routine sun protection is rarely necessary in the UK for people of colour, particularly those with black or dark brown skin tones. However, there are important exceptions to this. For example, sun protection is especially important if:
    1. You burn easily in the sun
    2. You have a skin condition such as photosensitivity, vitiligo or lupus,
    3. You have a high risk of skin cancer, especially if you are taking, immunosuppressive treatments. This includes organ transplant recipients,
    4. If other members of your family have had skin cancer.
- Outside of the UK in places with more extreme climates, you may need to follow our standard sun protection advice.
- It may be worth taking vitamin D supplement tablets (available from health food stores). This is because avoiding sunlight long term may reduce your vitamin D levels.
- Share sun safety advice and other information with your relatives as they may also be at increased risk of getting melanoma.
- Protect your children from the sun. This is because sun exposure during childhood is especially damaging to the skin.

- Keep babies and young children out of direct sunlight.

Top tips for applying sunscreen:

1. Make a habit of applying sun cream as part of your morning routine.
2. Apply sun cream liberally to the parts of your skin which will be exposed to the sun 15 to 30 minutes before going out into the sun. This gives it time to absorb and protect your skin.
3. Do not rub the sun cream into your skin but spread the sunscreen evenly over the surface of the skin and allow it to dry.
4. When you are in the sun, re-apply sun cream to the parts of your body exposed to the sun every 15 to 30 minutes.
5. Re-apply sun cream after activity that could remove it, such as swimming, toweling yourself dry or excessive sweating and rubbing.

Vitamin D advice

The evidence relating to the health effects of serum vitamin D levels, exposure to sunlight and vitamin D intake, is inconclusive. People who are avoiding (or need to avoid) sun exposure may be at risk of vitamin D deficiency and should consider having their serum vitamin D levels checked. If the levels are low, they may consider:

- taking vitamin D supplements of 10-25 micrograms per day
- increasing intake of food rich in vitamin D such as oily fish, eggs, meat, fortified margarine and cereals.

WHERE CAN I FIND MORE INFORMATION ABOUT MELANOMA IN SITU?

Patient support groups providing information:

Macmillan Cancer Support
Tel: 0808 808 2020 / 0808 800 1234
Web: www.macmillan.org.uk

Skin Cancer UK Charity: www.skcin.org

Cancer Research UK
Tel: 020 7242 0200
Web: www.cancerhelp.org.uk

Weblinks to other relevant sources:

Melanoma UK: www.melanomauk.org.uk

NHS: www.nhs.uk/conditions/melanoma-skin-cancer/

Skincancer.org:
www.skincancer.org/melanoma

Jargon Buster:
www.skinhealthinfo.org.uk/support-resources/jargon-buster/

Please note that the BAD provides web links to additional resources to help people access a range of information about their treatment or skin condition. The views expressed in these external resources may not be shared by the BAD or its members. The BAD has no control of and does not endorse the content of external links.

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.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

BRITISH ASSOCIATION OF DERMATOLOGISTS

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