
Department of Dermatology

Understanding malignant melanoma

Introduction

If you have had a **Malignant Melanoma** diagnosed, which is a form of skin cancer, you may be asking, 'What is a melanoma?', 'What happens to me now?' and you may have lots of questions.

We hope this information leaflet answers some of your questions about **malignant melanoma**. However, you may need to ask your doctor or nurse for information that is more personal to you, as each melanoma is different.

Your doctor and the nursing staff in this hospital will explain your treatment options in more detail with you at an outpatients appointment following referral from your GP.

Please don't hesitate to ask any questions or voice any worries that you, or your family, may have to your doctor or nursing staff.

What is cancer?

Cancer is a disease of the tiny building blocks that make up organs and tissues called cells. Normal cells replace themselves when they get worn out or injured. Sometimes they don't grow normally; instead, some cells keep on growing even when they don't need to. These cells will continue to divide and develop into a lump which is called a tumour. Tumours can either be **benign** or **malignant**. In a benign tumour cells do not spread away from the tumour and are therefore not cancerous. A malignant tumour has cells which have the ability to spread to other parts of the body through your bloodstream or lymphatic system.

The lymphatic system is part of the immune system. It is the body's natural defence system against infection and disease. Sometimes cells break away from the original site of the cancer, called the **primary** cancer, and spread to other parts of your body. When these cells reach a new site, they may form into another tumour or growth there. This is called a **secondary** or **metastasis**. For example, if a melanoma spreads to the lungs it is called a secondary melanoma in the lung, not lung cancer. Lung cancer is a separate disease altogether.

Cancer is **not one disease**. There are over 200 different types of cancer. All cancers are treated differently and occur for different reasons, many are completely cured. Don't hesitate to ask for clarification if terms whose meaning is unclear are used.

What is malignant melanoma?

Malignant Melanoma is a serious cancer that usually starts in the skin, either in a mole or in normal-looking skin. Melanoma is no less serious than a breast or bowel cancer; fortunately they are usually easier to detect and are often diagnosed at an early stage when they can be cured. Melanoma is a cancer of the pigment or coloured cells, called **melanocytes**, which lie in the layer of skin nearest the surface called the **epidermis**. The melanocytes produce the pigment for our skin called **melanin**. They are also the cells that form moles and freckles and allow you to tan.

Most melanoma will be curable with simple surgery when detected and treated early.

Once melanoma has grown down into the deeper layers of the skin called the **dermis** there is a greater risk that some of the cells can escape to other parts of the body. This reduces the chances of a cure. Most melanoma is cured; however some melanoma will spread to other organs within the body.

Melanoma may also occur in the eye, bowel, genitals, or mouth. These melanomas are very rare; therefore this booklet will primarily discuss melanoma of the skin.

Types of Melanoma

- **Superficial Spreading Melanoma** is the most common type of melanoma. They are most common on the legs of women and the trunk of men. They tend to spread out across the surface of the skin before they spread deeper into the skin.
- **Nodular Melanoma** can be a variety of colours and tends to grow deeper into the skin quite quickly. It forms a raised lump on the skin.
- **Acral Lentiginous Melanoma** is usually found on the palms of the hands, soles of the feet, or under the nails.
- **Lentigo Maligna Melanoma** appears in areas of skin that get a lot of sun exposure, such as the face or upper body. They usually grow slowly and can take years to develop.
- **Amelanotic Melanoma** may be pink, red, or have light brown, tan, or grey at the edges. This is a form of melanoma in which the malignant cells do not make the dark pigment melanin.

Who gets melanoma?

- About 7000 people in the UK get diagnosed with melanoma each year. It 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.
- Melanoma is very rare in dark skinned people and is seen more commonly on people with fair skin who burn and freckle easily.
- Melanoma can occur anywhere on the body, not only in areas that are exposed to lots of sun. The legs of women and the trunks of men are the most common places for melanoma to develop.

What is the cause of melanoma?

There is no doubt that Ultraviolet (UV) radiation from the sun (and other sources such as sunbeds) play the most important role in the development of melanoma, however there are many unanswered questions. Current research suggests that episodes of sunburn (redness of the skin) as a child under the age of 15 years of age increases the risk of developing melanoma as an adult. Research also suggests that intermittent episodes of sunburn as an adult, such as when on holiday or the weekends, may play a very important part in your risk for getting melanoma.

However, people who accumulate a lot of sun exposure in a continuous pattern are also at increased risk.

What can increase my chances of getting melanoma?

Some people are more at risk of developing melanoma than others.

The risk factors for developing melanoma are:

1. Red hair, blue eyes, with fair skin that burns or freckles easily.
2. Anyone with a large number of moles and in particular moles that are abnormal to begin with (called dysplastic naevus).
3. Anyone with a family history of two or more members with melanoma.
4. If you already have had a melanoma yourself.
5. Episodes of severe sunburn in childhood.
6. Indoor occupation with outdoor recreation, usually due to intermittent episodes of sunburn.
7. Being a woman between the ages of 40 to 60 or a man over the age 50.

How is melanoma diagnosed?

If your doctor suspects that an unusual spot or mole may be a melanoma (for instance a change in its size, colour, border, symmetry, or bleeding/itching) it is surgically removed and sent to a pathologist. This is called a **biopsy** or **excision** and is usually performed under local anaesthetic in the doctor's rooms or clinic. A biopsy is essential so that your doctor can be certain that this is a malignant melanoma.

After the biopsy result is available (usually in three weeks time) your doctor will discuss with you and your family (if you wish) the result and the treatment that will be necessary.

What does the 'thickness' of melanoma mean?

When the biopsy is sent to a pathologist, they look at it through a microscope to determine the thickness of the melanoma. The thickness, often called the **Breslow Thickness**, describes how far into the dermis the melanoma has grown. Some melanomas called **In Situ Melanomas** have no thickness at all (because they have not grown into the dermis, which is a sign of a very good outlook). The thickness of the melanoma can give an indication of how serious it is and requirements for further treatment.

How is melanoma treated?

In all but a few instances malignant melanoma is treated with surgery. The amount and type of surgery depends on how early (thin) your melanoma is and where on the body it is. Most thin melanomas need only simple surgery.

In the majority of cases your doctor will treat your melanoma with two operations.

1. The biopsy (as explained above)
2. The wider excision

A **wider excision (or wide local excision)** is an operation where your doctor removes an area of normal skin from around the site where the melanoma was. This is a precaution to make sure that no melanoma cells remain. This is a vital part of your melanoma treatment. How much skin your doctor will need to take will depend on how early or thick your melanoma is when diagnosed.

Sometimes a **skin graft** may be necessary. This is more common for thicker melanomas or for certain parts of the body that do not have much spare skin, for instance, the calf or face. A skin graft replaces the skin that has been removed with skin taken from another part of the body. This operation may involve a general anaesthetic, and could require a brief stay in hospital.

The other possibility is to do a **'flap'**, where the surgeon will cover the wound using a trap door of skin from near the wound, leaving it attached at one end. Either way, the wound will be covered with a dressing and follow up care will be organised. You will also have dressings on any area from which the skin was taken for a graft or flap.

You may be uncomfortable for some days after your operation. If you have pain, paracetamol may be all you require; if not your doctor will prescribe pain killers for you.

If you have a skin graft, the area on which the skin is grafted may look unattractive after the operation, but eventually it will heal and the redness will fade. There is risk of infection, bruising and scarring after surgery. Occasionally the skin graft fails and needs further treatment.

Do I need any other treatment?

Surgery is the only treatment for melanoma in almost all cases. At this moment there is no proven adjuvant treatment available to offer patients who have had a melanoma removed. (An 'adjuvant' treatment is an assisting therapy). However, there may be an opportunity for you to participate in a trial of a drug or treatment. If you are eligible to enter a trial your doctor or nurse will discuss with you the particulars of the trial.

Please don't hesitate to enquire if you are eligible to enter a trial. If you are offered a trial, you are under no obligation to accept it and your future care with us will not be compromised.

What tests will I need to have done?

Your doctor may want you to have some tests done when you have a melanoma diagnosed. These tests will usually be performed prior to your operation. This will enable a check on your general health and ensure that there is no spread of your melanoma anywhere else. This allows the best treatment for you to be planned. These **baseline** tests may be needed in the future.

Below is a list of tests that may be ordered for you. Very early thin melanomas usually require no tests at all. A very serious melanoma may require all of the listed tests.

Your doctor will decide which test (if any) that you require and it will be organised by the staff.

1. Chest x-ray (picture of your lungs)
2. Blood tests

Blood tests will not detect cancer cells in your body. There are no such tests. Blood tests are performed to check your general health, and monitor the function of certain organs in your body. The kidneys and the liver are the most commonly checked organs.

3. CT or CAT scan. A CAT scan is a specialised x-ray which uses a dye to help show the organs of the body that normal x-rays can not. A CAT scan can be performed on the head, chest or abdomen.
4. Ultrasound. An ultrasound is a scan which uses sound waves to scan your internal organs.
5. Bone Scan. A bone scan uses x-ray dye which allows all the bones in your body to be seen.

Follow up tests

If you have a more serious melanoma you will need to have a chest x-ray and blood test done every six to twelve months. These may be performed until 10 years after your melanoma has been removed. These tests are to alert your doctor at an early stage in case there is a possible complication from your melanoma.

If you are on any drug treatments or trial, you will require more and maybe different tests. Your doctor or nurse will inform you when these tests are due and will also organise them for you.

Will I be cured?

The most important factor in determining the likelihood of a cure for melanoma is how early the melanoma has been diagnosed. The same is true for other cancers. The **prognosis** of a disease describes the expected outcome.

- The thinner/earlier the melanoma when found, the better the chance of a cure following treatment. Hence, you will have a good prognosis.
- Melanoma that is deeper/thicker or that has already spread to the lymph glands is harder to cure. Hence you will have a worse prognosis.
- Other factors can influence your prognosis. Overall, women seem to do better than men, but it is unclear why this is so. Also, there are aspects of a melanoma's appearance under the microscope, other than its thickness, which predict a better or worse outcome.
- In the UK the cure rate for women is 87% and for men it is 77%. It is hoped that these rates will improve as melanomas get diagnosed earlier.
- Your doctor/nurse will talk to you and your family more specifically about your melanoma.

Where could my melanoma spread to?

If you have a thin, hence early melanoma, the chance of any problems ever occurring is extremely rare. During your checkups your doctor will be primarily looking for the signs of development of a new melanoma.

With thicker and hence more serious melanomas the doctor will be looking for your melanoma recurring or spreading to other areas in your body.

The risk of your melanoma metastasising to other parts of your body is greatest during the first three years. After three years the risk is greatly reduced. If your melanoma was to cause further problems it could do so in the following ways:

- A lump may grow at the site of your original melanoma - usually in the scar, or a new mole or freckle may grow within 2 to 3cm of the scar.
- A lump may grow between the original melanoma and the lymph glands that drain that area. For example, if you have a melanoma on the calf, a lump could grow between your melanoma on the calf and your groin.
- A lump may grow in the lymph glands that drain your melanoma site, for example around your neck, armpits or groin. Ask your doctor or nurse where your draining lymph nodes are.
- The melanoma may spread to and grow in the organs inside your body.

Please note, these complications are not common, **but if you notice any of these problems please contact your doctor or nurse immediately. Do not wait for your next appointment.**

Why do I need to have regular checkups?

After the removal of your melanoma you will need to have regular checkups for possibly the rest of your life. There are two main reasons for us recommending that you have regular checkups and they are: -

1. If your melanoma recurs it can be found early and treatment commenced quickly.
2. To check for any new melanoma that may be growing on the skin.

A check for recurrence

If you have a more serious melanoma the risk of it spreading or causing further problems is greatest during the first three years after your melanoma is diagnosed. After this time the risk becomes much less.

Your doctor will want to examine you often for the first three years. During your checkups your doctor will carefully examine the site of your melanoma, the lymph glands, your abdomen and check your skin fully from head to toe.

If you have a thin/early melanoma your follow up period with the hospital will usually end after three years. These may continue with your local doctor. After this time period you have a small risk of a recurrence or spread to other organs.

People with thicker melanomas will require longer follow up which usually comprises a check up every six months for a further two years.

A check for a new melanoma

You have approximately a 10% risk (i.e. 10 people in every 100) of getting a second primary melanoma during your lifetime. This second melanoma is totally unrelated to your first. It is a new melanoma. It is not a recurrence or spread from your first melanoma. Regular checkups for the remainder of your life are very important for anyone who has had melanoma, so that any new melanoma can be diagnosed and treated quickly.

We recommend that you and your family learn to check your own skin. You will be given information that will teach you and your family how to do this.

All of your checkups will be a physical examination with your doctor checking you from head to toe. This does not take very long. However you do need to undress, so we suggest that you wear clothing that is easy to get in Page 14

What can I do to help myself?

1. If you smoke, stop smoking. Research has shown that people who smoke have a greater risk of problems from their melanoma.
2. Ensure you have a check-up regularly as recommended by the doctor or hospital treating you. It is very easy to become relaxed after a few years, so don't let this happen to you.
3. Examine your skin and that of your family every three months.
4. Protect you and your family from sun damage. Stay out of the sun between the hours of 1100 and 1500. Slip on a shirt, apply some 30+ sun screen, and put on a good broad brimmed hat. Wear sunglasses and minimise the time you spend in the direct sun.
5. Adopt a healthy lifestyle.
6. Ensure you get regular exercise, walking three times a week is adequate. Reduce your stress levels if possible.
7. Eat a healthy diet. Eating nutritious food will help you to keep as well as possible and cope with the cancer and treatment side effects.

I feel worried and anxious

Most people feel quite overwhelmed when they learn they have cancer. It is normal to experience a range of extreme emotions, such as fear, sadness, depression, anger or frustration. It will help to talk about your feelings with your partner, family members and friends or, if you prefer, a member of hospital staff or community support service.

You may find that your friends and family don't know what to say to you. They may have difficulties with their feelings as well. You may feel able to approach your friends directly and tell them what you need. You may prefer to ask a close family member or a friend to talk to other people for you.

You may well not remember, or in fact even hear what your doctor or nursing staff tell you initially at diagnosis – this is completely normal. For this reason we often say the same things to you a number of times. We suggest you bring a family member or friend with you to your initial appointments, which may help.

Information on the internet

British Association of Dermatology	www.bad.org.uk
Macmillan Cancer Relief	www.macmillan.org.uk
Cancer Research UK	www.cancerresearchuk.org
American Cancer Society	www.cancer.org



We are currently working towards a smoke-free site. Smoking is only permitted in the designated smoking areas.

For advice and support in quitting, contact your GP or the free NHS Stop Smoking helpline on 0800 169 0 169

Help with this leaflet:



If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or

patient.information@addenbrookes.nhs.uk



Document history

Authors	Dermatology Department
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Contact number	01223 245151
Publish/Review date	January 2011/January 2014
File name	Understanding_malignant_melanoma.doc
Version number/Ref	3/PIN1096