Malignant melanoma

J A S C A P

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MUMBAI, INDIA
JASCAP is a charitable trust that provides information on various aspects of cancer. This can help the patient and his family to understand the disease and its treatment and thus cope with it better.


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T1a N0 M0 Melanoma

Example:
0.8mm tumor and Clark Level III (no ulceration)
T1b N0 M0 Melanoma

Example:
1.5mm tumor
(no ulceration)

Epidermis

Papillary
dermis

Reticular
dermis

Subcutaneous
tissue

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T2b N0 M0 Melanoma

Example:
2.0mm tumor
(with ulceration)

Epidermis

Papillary
dermis

Reticular
dermis

Subcutaneous
tissue

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T3b N0 M0 Melanoma

Example:
3.5mm tumor (with ulceration)

Epidermis

Papillary dermis

Reticular dermis

Subcutaneous tissue

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T4b N0 M0 Melanoma

Example:
4.5mm tumor (with ulceration)

Epidermis

Papillary dermis

Reticular dermis

Subcutaneous tissue

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T(any) N(any) M1c Melanoma

Example: Tumor

Metastases
- Brain
- Lung
- Liver
- Adrenal
- Bone

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Malignant Melanoma

What is malignant melanoma?

Melanoma is a cancer which usually starts in the skin, either in a mole or in normal-looking skin. About half of all melanomas start in normal skin.

The number of people who develop melanoma is continuing to rise. More than 8,900 people in the UK are diagnosed with melanoma each year.

Melanoma is more common in women, particularly young women. In the UK it’s the most common cancer in people aged 15–34, but like most cancers it’s more usual for it to happen in older people, as our risk of cancer rises with age. Melanoma is rare in children under 14.

People with black or brown skin are much less likely to get melanoma as their skin is more naturally protected against it.

In women the most common place to develop melanoma is on the legs; in men it’s on the chest or back.

How melanoma develops

Melanoma develops from melanocytes. In melanoma the melanocytes start to grow and divide more quickly than usual and start to spread into the surrounding surface layers of skin. When they grow out of control they usually look like a dark spot or mole on your skin.

Finding and treating melanoma as early as possible is very important. If a melanoma is not removed the cells can grow down deeper into the layers of the skin. These layers contain tiny blood vessels and lymph channels. Lymph channels are tiny tubes which carry lymph fluid and connect to lymph nodes (sometimes called glands) throughout the body. This is part of our immune system, which helps us to fight against infection.

If the melanoma cells go into the blood vessels or lymph channels they can travel to other parts of the body.

What is cancer?

The organs and tissues of the body are made up of tiny building blocks called cells. Cancer is a disease of these cells.

Cells in different parts of the body may look and work differently but most reproduce themselves in the same way. Cells are constantly becoming old and dying, and new cells are produced to replace them. Normally, cells divide in an orderly and controlled manner. If for some reason the process gets out of control, the cells carry on dividing, developing into a lump which is called a tumour.
Tumours can be either **benign** or **malignant**. Cancer is the name given to a malignant tumour. Doctors can tell if a tumour is benign or malignant by examining a small sample of cells under a microscope. This is called a **biopsy**.

In a benign tumour the cells do not spread to other parts of the body and so are not cancerous. However, if they continue to grow at the original site, they may cause a problem by pressing on the surrounding organs.

A malignant tumour consists of cancer cells that have the ability to spread beyond the original area. If the tumour is left untreated, it may spread into and destroy surrounding tissue. Sometimes cells break away from the original (primary) cancer. They may spread to other organs in the body through the bloodstream or lymphatic system.

The lymphatic system is part of the immune system - the body's natural defence against infection and disease. It is a complex system made up of organs, such as bone marrow, the thymus, the spleen, and lymph nodes. The lymph nodes (or glands) throughout the body are connected by a network of tiny lymphatic ducts.

When the cancer cells reach a new area they may go on dividing and form a new tumour. This is known as a **secondary cancer** or **metastasis**.

It is important to realise that cancer is not a single disease with a single type of treatment. There are more than 200 different kinds of cancer, each with its own name and treatment.

### Types of cancer

**Carcinomas**

The majority of cancers, about 85% (85 in a 100), are carcinomas. They start in the epithelium, which is the covering (or lining) of organs and of the body (the skin). The common forms of breast, lung, prostate and bowel cancer are all carcinomas.

Carcinomas are named after the type of epithelial cell that they started in and the part of the body that is affected. There are four different types of epithelial cells:

- **Squamous cells** - that line different parts of the body, such as the mouth, gullet (oesophagus), and the airways
- **Adeno cells** - form the lining of all the glands in the body and can be found in organs such as the stomach, ovaries, kidneys and prostate
- **Transitional cells** - are only found in the lining of the bladder and parts of the urinary system
basal cells - that are found in one of the layers of the skin.

A cancer that starts in squamous cells is called a squamous cell carcinoma. A cancer that starts in glandular cells is called an adenocarcinoma. Cancers that start in transitional cells are transitional cell carcinomas, and those that start in basal cells are basal cell carcinomas.

**Leukaemias and lymphomas**

These occur in the tissues where white blood cells (which fight infection in the body) are formed, i.e. the bone marrow and lymphatic system. Leukaemia and lymphoma are quite rare and make up about 6.5% (6.5 in 100) of all cancers.

**Sarcomas**

Sarcomas are very rare. They are a group of cancers that form in the connective or supportive tissues of the body such as muscle, bone and fatty tissue. They account for less than 1% (1 in 100) of cancers.

Sarcomas are split into two main types:

- bone sarcomas - that are found in the bones
- soft tissue sarcomas - that develop in the other supportive tissues of the body.

**Others forms of cancer**

Brain tumours and other very rare forms of cancer make up the remainder of cancers.

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**The skin**

The skin has many purposes; it:

- acts as a barrier to protect the body from injury and keeps out infection
- keeps in necessary fluids and proteins
- protects the body from the harmful effects of ultraviolet light
- helps to control our body temperature.

**Structure**

The skin is divided into two main layers. The layer nearest the surface is known as the **epidermis** and the layer underneath is known as the **dermis**.

The epidermis contains three types of cells. On the surface are flat cells, known as **squamous cells**. Under the layer of squamous cells are rounder cells called **basal cells**. In between the basal cells are **melanocytes**.

The dermis contains nerve endings, blood vessels, and oil and sweat glands. It’s held together by a protein called collagen.
Melanocytes
Melanocytes are cells which produce a pigment called melanin. Melanin is responsible for the natural colour of our skin and protects it from the harmful effects of the sun. Melanocytes are found in the lower part of the epidermis.

When our skin is exposed to a lot of sun our melanocytes increase the amount of melanin to absorb more ultra violet rays. This makes the skin darker and gives it a suntanned appearance. A suntan is a sign that the skin has been damaged and is trying to protect itself.

People with brown or black skin have the same number of melanocytes but make more melanin. This means that they have more natural protection from the sun’s ultra violet rays.

Moles (sometimes called naevi) are just a group or cluster of melanocytes that lie close together. Most people with white skin have about 10–50 moles on their skin. Some young adults can have as many as 100.

Types of melanoma
Here are the four main types of skin (cutaneous) melanoma:

Superficial spreading melanoma is the most common type of skin melanoma. In women the most common place for it to start is on the legs, while in men it’s on the chest and the back. At first the melanoma cells usually grow slowly, spreading out across the surface of the skin.
Nodular melanoma is the second most common type, but most thin melanomas aren’t nodular melanomas. It can grow more quickly than other melanomas and is usually found on the chest, back, head or neck.

Lentigo maligna melanoma is usually found in older people, in areas of skin that have had a lot of exposure to the sun over many years (most often the face and neck). It develops from a slow growing precancerous condition called a Hutchison’s freckle, which looks like a stain on the skin.

Acral melanoma is the rarest type and is usually found on the palms of the hands, soles of the feet, under nails or toenails. It’s more common in people with black or brown skin and isn’t thought to be related to sun exposure.

Rarely melanoma can start in parts of the body other than the skin.

Causes and risks of melanoma

The main risk factor for melanoma is exposure to ultra violet (UV) light, through natural sunlight or artificially from sunbeds or lamps. UV light damages the DNA (genetic material) in our skin cells and can cause skin cancers like melanoma.

Sun exposure is not the cause of all melanomas because some melanomas affect parts of the body that aren’t exposed to the sun.

Ultraviolet (UV) rays from the sun In the UK the number of people developing melanoma and other skin cancers is steadily rising. This may be because people take sunshine holidays abroad more often.

Ultraviolet light from sunbeds Sunbeds give off artificial UV rays which damage the DNA, increasing the risk of developing melanoma. The more you use a sunbed or lamp the greater your risk. Getting a sunbed tan before you go on holiday can actually increase your risk of melanoma.

It’s important for us all to be aware of the damage that too much exposure to the sun can cause. Some sunshine is good for us. It helps us make vitamin D which keeps bones and teeth healthy, and generally makes us feel better. But it’s important to be aware of the damage that too much exposure to the sun can cause.

If you’ve had a melanoma (or any skin cancer) or are at increased risk of melanoma, it’s essential to protect yourself from the sun.

Other factors that can increase your risk

Your skin type People with fair skin, red or fair hair, blue eyes, and freckles are more sensitive to the sun. Because of their skin type they burn more easily and so are more at risk of getting melanoma. Having brown or black skin lowers your risk of getting melanoma, but it doesn’t mean that you will never get one.

Sunburn Episodes of severe sunburn, especially during childhood, can increase the risk of melanoma in the future.

Having lots of moles and unusual moles People who have a lot of moles (especially over 100) have a higher risk of getting melanoma. People with moles
which are bigger than usual, with an irregular shape or colour (called atypical), have an increased risk. These moles (sometimes called dysplastic naevi) rarely change into melanoma, but it’s important to keep an eye on them. Having lots of moles and atypical moles can run in some families. Having a very large (more than 20cm in diameter) dark hairy mole which you were born with also increases your risk of melanoma.

If you have any of the above you can be referred to a skin specialist for advice and an assessment of your skin.

**Family history of melanoma** This increases your risk, especially if you have two or more close relatives who have had melanoma. This may be caused by an inherited faulty gene, but this area is still being researched. People with a very strong family history of melanoma can be referred by their GP to a family cancer clinic (which may be doing research).

**Reduced immunity** People with a weakened immune system because they have HIV, or people taking drugs that suppress the immune system (after an organ transplant) have an increased risk of melanoma.

## Symptoms of melanoma

About half of melanomas start with a change in normal looking skin. This usually looks like a dark area or an abnormal new mole. The other half of melanomas develop from a mole or freckle that you already have.

It can be difficult to tell the difference between a melanoma and a normal mole. The following checklist (known as the ABCDE list) will give you an idea of what to look out for:

- **Asymmetry** – Melanomas are likely to be irregular or asymmetrical. Ordinary moles are usually symmetrical (both halves look the same)

- **Border** – Melanomas are more likely to have an irregular border with jagged edges. Moles usually have a well-defined regular border.

- **Colour** – Melanomas tend to have more than one colour. They may have different shades like brown mixed with black, red, pink, white or a bluish tint. Moles are usually one shade of brown.

- **Diameter** – Melanomas are usually more than 7mm in diameter. Moles are normally no bigger than the blunt end of a pencil (about 6mm across).

- **Evolving (changing)** – Look for changes in the size, shape or colour of a mole.

See your doctor straight away if you have:

- any of the ABCDE signs
- a mole that is changing in size, shape or colour
- tingling or itching in a mole
- crusting or bleeding in a mole
- something growing under a nail or a new pigmented line in a nail.
Melanoma can usually be cured if it’s found at an early stage.

## How melanoma is diagnosed

Usually you will begin by seeing your GP who will examine you. If your GP thinks you may have a melanoma they should refer you urgently to a doctor with specialist training in diagnosing skin cancer.

### Seeing a specialist

If you have a suspected melanoma you should be seen within a couple of weeks by a skin cancer specialist. Your appointment will usually be at a skin clinic or at a pigmented lesion clinic (a special clinic for diagnosing melanomas early). You will see a skin specialist (dermatologist) or a plastic surgeon. These doctors are experienced in treating skin cancers.

Your specialist will examine your mole and ask you questions about how long you’ve had it and the changes you’ve noticed. They usually also examine the rest of your skin to see if you have any other unusual moles.

Some specialists may look at your moles with a small hand held instrument called a dermatoscope. This gives a bigger and clearer picture of the mole, but it’s not always necessary to have this test. Your specialist will be able to tell a lot by just looking at your mole.

If they think you have a melanoma your specialist will ask you to have the whole mole removed (excision biopsy). You may also be introduced to a specialist skin cancer nurse who will give you information and support.

### Giving your consent

Before your mole is removed, your doctor will explain the aims of the treatment to you. You’ll usually be asked to sign a form saying that you give your permission (consent) for the mole to be removed. Your doctors or specialist nurse will explain the procedure and talk to you about any possible complications, such as bleeding or infection, although these are unusual. They’ll also explain that you will have a small scar as a result of having your mole removed.

### Removing the mole (excision biopsy)

Once you’re lying down comfortably your doctor will inject a local anaesthetic around the area of the mole. After this they will cut out the whole mole and a tiny amount of skin around it (2–5mm). You won’t feel this because the local anaesthetic numbs the area. Your doctor will then close the wound using stitches, which will be removed after 5–14 days. Some people may have stitches which dissolve and don’t need to be removed.
The mole is examined under the microscope by a pathologist to see if any melanoma cells are present. You usually get the results within a few weeks when you return to the clinic.

When it’s confirmed that it was a melanoma your specialist may talk to you about having further surgery, known as a **wide local excision**. A wide local excision is done to make sure that all the melanoma cells in the area have been removed. This is explained in the section on treatment.

### Staging melanoma

The stage of a cancer is a term used to describe the size of the cancer and whether it has spread. Knowing the stage of a cancer helps doctors decide on the best treatment for you. The staging system that is used for melanoma is the American Joint Committee on Cancer (AJCC).

**AJCC staging system**

This uses the TNM system.

- **T** stands for tumour. This is based on the thickness of the melanoma (using Breslow thickness) and also looks at whether the melanoma is ulcerated.
- **N** stands for spread to lymph nodes (sometimes called glands).
- **M** is whether the melanoma has spread to other parts of the body (secondary or metastatic cancer).

#### Breslow thickness

As well as the AJCC system, an important measurement for melanoma is how thick it is. This is called the Breslow thickness (named after the doctor who introduced it). It’s the distance in millimetres from the surface of the skin to how far down the deepest melanoma cells are. **Thin melanomas** (less than 1mm) have a very high chance of being cured.

#### Ulceration

A melanoma is said to be ulcerated if the layer of skin covering the melanoma cannot be clearly seen. If it’s not ulcerated the letter **a** is added to the stage and if it is ulcerated the letter **b** is added.

Thin melanoma, less that 1mm, is always stage 1 in the AJCC system. It will either be stage 1a or stage 1b depending on whether or not it is ulcerated.

#### Melanoma in situ

Melanoma in situ, or melanocytic intraepithelial neoplasia (MIN), is the very earliest stage of melanoma. The melanoma cells are just in the very top layer of skin (epidermis) and haven’t started to spread into the surrounding skin. It’s called a Stage 0 melanoma and it’s sometimes described as precancerous. Lentigo maligna is a type of melanoma in situ.

Melanoma in situ can be cured and there shouldn’t be any risk of it coming back after surgery.
Treating thin melanoma (less than 1mm)

The only treatment needed for a thin melanoma is:

- removing the whole mole
- wide local excision (to make sure no melanoma cells are left behind).

After your whole mole has been removed (see diagnosis) and the results show that it is a melanoma, your specialist may ask you to have a wide local excision. If enough clear tissue was taken away when your melanoma was removed you might not need to have a wide local excision

Wide local excision

The surgeon removes a small amount (margin) of normal-looking tissue all around the area where the melanoma was. This is to make sure that no melanoma cells have been left behind.

You will usually have this done under local anaesthetic in the day surgery unit in the same way as you had your mole removed. It may sometimes be done under general anaesthetic.

The surgeon usually removes at least 1cm of skin all around the melanoma. Your specialist nurse will give you information and advice about looking after the area. It will look red and sore at first, but this will gradually settle. Your stitches will be removed after 5–14 days. You will be left with a scar which is usually small and will eventually fade.

Very occasionally, a wider area of skin is removed and the surgeon may need to do a skin graft. Skin grafts are layers of skin taken from another part of the body and placed over the area where the melanoma has been removed. However, you don't usually need to have a skin graft if you have a thin melanoma removed.

Change in appearance

If the melanoma was on a visible part of your body (exposed), such as your face or neck, and its removal has changed your appearance, this may be difficult to come to terms with. Some skin clinics have a make-up specialist who will help you find the best way to cover up scars. There are also some organisations that provide camouflage make-up to cover up scars.

Coping with a change in how you look can be difficult. It's important to get support and many people find it helps to talk things through with someone close or a trained counsellor.
Benefits and disadvantages of treatment

Surgery has a very high chance of curing a thin melanoma. The surgery will leave a scar on the skin but this will fade and may not be noticeable, depending on where your melanoma was. Without surgery melanoma is likely to spread into the deeper layers of the skin and may then spread to other areas of the body.

If you have any questions, don’t be afraid to ask your doctor or the nurses looking after you. It often helps to make a list of questions for your doctor and to take a close friend or relative to the discussion with you.

Treatment of stage 2 and 3 melanoma

Stage 2 is when the melanoma is more than 2mm thick, or more than 1mm thick and ulcerated (the skin is broken). Stage 3 is where melanoma cells are found in one or more lymph nodes.

After diagnosis and initial treatment you may have further tests to check if the cancer has spread to the lymph nodes and further treatment to try to reduce the risk of the melanoma coming back.

The lymph nodes
Further tests
Further treatment

The lymph nodes

The lymph nodes are part of the lymphatic system, which is part of the body's natural defence against infection. The lymph nodes (sometimes called glands) are situated throughout the body and are connected by very fine lymphatic vessels. Fluid drains from the tissues into the lymphatic system.

Sometimes melanoma cells can travel to the lymph nodes. If you have melanoma, your doctor may suggest further tests to see if it has spread.
Further tests

Fine needle aspiration (FNA)
Your doctor may suggest this if you have a swollen lymph node. The doctor uses a fine needle and syringe to take some cells from the swollen node. These are then examined in the laboratory.

Sentinel node biopsy
Your surgeon may suggest that during or after your operation you have a sentinel node biopsy to see if the melanoma cells have spread to the lymph nodes. The sentinel node is the one closest to the melanoma. To identify the sentinel node, two substances are injected into the area – one is mildly radioactive and the other is coloured blue. The surgeon removes the node which has taken up these liquids (the sentinel node), so it can be tested to see whether it contains melanoma cells.

The risk of problems following the sentinel node biopsy is very low. They include infection or having some fluid collect in the area. These can easily be treated.

Sentinel node biopsy is still being researched in trials, to see how effective it is.

If you have a sentinel node biopsy, you may not need to have any other lymph nodes removed. If melanoma cells are found in the sentinel node, your doctor will suggest another operation (lymph node dissection) to remove more of the lymph nodes in the area.

Lymph node dissection
This is an operation to remove all the lymph nodes in the area. It is sometimes called a block dissection and is done under a general anaesthetic. You will have some soreness for a few weeks after the operation, but hopefully it should not stop you doing any of your normal activities. Your doctor or nurse will give you detailed advice about what you can or can’t do. Sometimes, the removal of lymph nodes may cause a gradual swelling in the limb where the glands were removed. This is called lymphoedema.

The following tests may be done either before or after you have a lymph node dissection.

Blood tests
To check your general health.

Chest x-ray
To check your general health and look for any signs of melanoma in the lungs.

Liver and abdominal ultrasound scan
This uses sound waves to make up a picture of a particular area of the body. Once you are lying comfortably on your back, a gel is spread on your abdomen. A small device like a microphone is then passed over the area. The echoes are converted into a picture by a computer.
CT scan (computerised tomography scan)
A series of X-rays is taken of the chest and abdomen. These are fed into a computer to build up a detailed picture of the body’s organs and may show whether the melanoma has spread. The scan takes from 10 to 30 minutes. You may be given a drink or injection of a dye which allows particular areas to be seen more clearly. For a few minutes this may make you feel hot all over. If you are allergic to iodine or have asthma you could have a more serious reaction to the injection, so it is important to let your doctor know beforehand. You will probably be able to go home as soon as the scan is over. Your doctor may also want you to have a CT scan of your brain.

Further treatment
Treatment is sometimes used after surgery to try to reduce the risk of the melanoma coming back. This is called adjuvant treatment. At the moment, there is no standard adjuvant treatment for stage 2 or 3 melanoma, although treatment with a drug called interferon is sometimes suggested.

Interferon is a substance produced by the body to fight viral infections such as flu. A man-made version is available. The aim is that interferon will help stimulate the body’s own immune system to fight the melanoma. Interferon is given as an injection just under the skin (subcutaneously) usually three times a week. Interferon can cause side effects similar to flu symptoms (fever, chills, headache, tiredness). Although these can be troublesome, they gradually disappear once the treatment is over.

Treatment for advanced (stage 4) melanoma
Melanoma can spread to other areas in the body, including the lungs, liver, lymph nodes and the brain. It can also affect other areas of skin some distance from where it first started. Melanoma which has spread is called advanced or stage 4 melanoma. Doctors also use terms like secondary or metastatic cancer, which means cancer that has spread from its original site.

The treatment you have will depend on where the melanoma has spread to, your general health, and what treatment you have already had.

Further tests used to diagnose stage 4 melanoma
- Blood tests
  To check your general health.
- Chest x-ray
  To check your general health and look for any signs of melanoma in the lungs.
Liver and abdominal ultrasound scan
This uses sound waves to make up a picture of a particular area of the body. Once you are lying comfortably on your back, a gel is spread on your abdomen. A small device like a microphone is then passed over the area. The echoes are converted into a picture by a computer.

CT scan (computerised tomography scan)
A series of x-rays is taken of the chest and abdomen. These are fed into a computer to build up a detailed picture of the body organs and may show whether the melanoma has spread. The scan takes from 10 to 30 minutes. You may be given a drink or injection of a dye which allows particular areas to be seen more clearly. For a few minutes this may make you feel hot all over. If you are allergic to iodine or have asthma, it is important to let your doctor know this beforehand, as you could have a serious reaction to the injection. You will probably be able to go home as soon as the scan is over. Your doctor may also want you to have a CT scan of your brain.

MRI scan (magnetic resonance imaging scan)
This test is similar to a CT scan but uses magnetism instead of x-rays to build up a detailed picture of areas of your body. You will be asked to lie very still on a couch inside a long tube for about 30 minutes. It is painless but can be slightly uncomfortable, and some people feel a bit claustrophobic during the scan. It is also noisy, but you will be given earplugs or headphones. Some people are given an injection of dye into a vein in the arm, but this usually does not cause any discomfort.

Treatment
Treatment for advanced melanoma aims to slow down the progress of the cancer. It can also help with some of the symptoms. You may want to discuss the aims of treatment with your doctors.

Surgery
If the melanoma is in the skin, the lymph nodes or in a single part of the brain, your doctors may suggest an operation to remove it. Surgery can also be used to help relieve symptoms of advanced melanoma.

Biological therapies
Biological therapies are based on substances naturally produced in the body. The main one used in melanoma treatment is interferon. Interferon is produced by the body to fight viral infections. A man-made version is available. The aim is that interferon will help stimulate the body’s own immune system to fight the cancer. Interferon is given as an injection just under the skin (subcutaneously) usually three times a week. It can cause side effects similar to flu symptoms (fever, chills, headache and tiredness). Although these can be troublesome, they gradually disappear once the treatment is over. Another type of biological therapy is interleukin. This is used more often in the USA. Interleukin tends to cause more side effects than interferon. There is no evidence that either drug is more effective than the other.

Chemotherapy
Chemotherapy is the use of anti-cancer drugs to destroy cancer cells. A drug called dacarbazine (DTIC) can be used to treat advanced melanoma. Sometimes it is used with other chemotherapy drugs. Most chemotherapy is given by an infusion (drip) into
one of the veins in your arm (intravenously). It is usually given every three or four weeks. Another chemotherapy drug, temozolomide (Temodal®), is also being used in research trials for melanoma.

**Isolated limb perfusion**
If the secondary melanoma is confined to just an arm or a leg, your doctors may suggest isolated limb perfusion. This is a specialised procedure, only available at some hospitals, which allows chemotherapy to be given to just one limb. The side effects are reduced because the chemotherapy does not affect the rest of the body.

**Radiotherapy**
Radiotherapy uses high-energy rays to destroy cancer cells, while doing as little harm as possible to normal tissue. It may be used if, for example, cancer has spread to the bones, as it can help relieve pain. It may also be used to treat melanoma in the skin and brain.

**Advantages and disadvantages of treatment**
Treatment for advanced melanoma can only control the cancer and lead to an improvement in symptoms and quality of life. However, for some people the treatment will have very little effect on the cancer, and they will get the side effects without many of the benefits.

If a cure is not possible and the treatment is being given to control the cancer, you may want to consider whether you wish to have treatment. Making decisions in these circumstances is always difficult, and you may need to discuss your situation in more detail with your doctor. If you choose not to have treatment, you can still be given supportive care, (also known as palliative care) with medicines to control any symptoms.

**New treatments**

**Cancer vaccines**
Vaccines are being researched to see if they are useful to treat melanoma. It is hoped that cancer vaccines will help stimulate the body’s own immune system to destroy the cancer cells.

**Biochemotherapy**
This treatment uses a biological treatment, such as interferon, in combination with chemotherapy to treat melanoma.

**Follow-up after treatment for melanoma**
After the melanoma has been removed your skin cancer specialist will want to see you again. You may only be asked to come back for a couple of visits until your scar has settled down, or you may have regular check-ups every few months for a period of time. This varies with different hospitals and will depend on the advice given by
your skin cancer specialist. If you had a melanoma in situ you will usually only be seen once after it's been removed.

Although it’s very unlikely that your original melanoma will come back, you are at more risk of developing another primary melanoma (second primary). Because of this you will be shown how to examine your skin and what to look for. You’ll also be given advice on protecting yourself from the sun.

At the clinic
What to look for

**At the clinic**
Your doctor or specialist nurse will examine your scar and the surrounding area. They will also check the lymph nodes close to the area where the melanoma was removed.

If your melanoma was in the:

- **Leg** - The lymph nodes behind your knees and in your groin will be checked.
- **Chest, back or abdomen** - The lymph nodes in your groin, armpits, above the collar bones and in the neck will be checked.
- **Arm** - The lymph nodes in the armpit on the affected side, above your collar bones, and in the lower neck will be checked.
- **Head or neck area** - The lymph nodes in the sides of your neck, under the chin, above the collar bones, behind your ears and at the back of your neck will be checked.

Some people may have photographs taken of their skin and some of their moles measured. This is just a way of comparing and keeping a check on any changes that may develop.

For people whose treatment is over apart from these check-ups, our booklet *life after cancer* gives useful advice on how to keep healthy and adjust to life after treatment.

**What to look for**
Your specialist nurse or doctor will give you advice about what to look for and how to examine yourself. It’s important to do this at least once a month because of the risk of getting another primary melanoma and of the small risk of your melanoma coming back. The earlier anything like this is picked up the more chance there is of curing it.

You’ll be asked to check (by looking and feeling):

- your scar and the surrounding area
- the lymph nodes nearby
- your skin, from head to toe, for any new or changing moles (using the ABCDE guide).

After a while checking your skin will get easier; you’ll become more familiar with your skin and what your moles normally look like. A good time to do this is after a bath or shower. Make sure that you have plenty of light. Use a full length mirror and a small
hand held mirror for areas that are hard to reach. You can ask a partner, relative or friend to look at your back and parts of your skin that are hard to see.

## After melanoma

Most people with thin melanoma will be cured, and getting back to normal after surgery is usually straightforward. The main change is that from now on you’ll have to make sure you protect yourself from the sun. You may also feel anxious or upset for a while but these feelings usually get better as things get back to normal.

Some women have concerns about becoming pregnant, taking the contraceptive pill, or hormone replacement therapy (HRT) after melanoma. There’s no evidence, however, that getting pregnant, taking the contraceptive pill, or hormone replacement therapy (HRT) increase the risk of melanoma coming back.

Skin care in the sun
How you might feel

### Skin care in the sun

After any treatment for malignant melanoma, it’s very important to avoid strong sunlight. This reduces the chance of developing a second melanoma.

Protecting yourself from the sun doesn’t mean that you can no longer enjoy sunshine or have holidays in sunny countries, but you’ll need to take sensible precautions which will in time become part of your normal routine. There are a number of things you can do to protect your skin:

- Never allow your skin to burn.
- Stay out of the sun or strong sunlight during the hottest part of the day – usually between 11am and 3pm.
- Wear clothing made of cotton or natural fibres which have a close weave and give more protection against the sun.

Keep your legs and arms covered by wearing long sleeves and trousers. Protect your face and neck with a wide-brimmed hat.

- Always wear sunglasses in strong sunlight.
- Use a high-factor sunscreen (SPF15 or above) whenever you are exposed to the sun. Follow the instructions on the bottle and re-apply it as recommended, especially after swimming. Choose one that protects against both UVA and UVB radiation (called broad spectrum).
- Don’t use sunscreen to stay out in the sun for longer, or instead of clothing to protect your skin. The best protection is to cover up and to stay out of strong sunlight.
- Never use a sunbed or sunlamp. If it’s important for you to look tanned use fake tanning lotions or sprays.
**How you might feel**

Although your melanoma is likely to be cured you may feel anxious or upset for a while. Talking to family and friends about how you are feeling often helps. You can also talk to your doctor or specialist nurse for advice and support.

Occasionally some people may need more than advice and support from their health professionals and family and friends. Sometimes it’s easier to talk to someone who’s not directly involved. Your specialist or GP can usually refer you to a trained counsellor who can help.

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**Research - clinical trials for melanoma**

You may be offered further treatment as part of a clinical trial. Treatment may be with either interferon or a cancer vaccine.

Vaccines are being used in trials to try to control the growth of melanomas that have already spread. There are several different types of vaccine but they are produced in similar ways.

Research into new ways of treating melanoma is going on all the time.

For stage 2 and 3 melanoma, trials are looking into whether adjuvant treatment reduces the chance of the cancer coming back.

For advanced melanoma, trials are looking at new drugs to see if they are effective at treating melanoma.

Clinical trials can take some time. There can be many benefits in taking part in a trial. You will be helping to improve knowledge about melanoma and the development of new treatments. You will also be carefully monitored during and after the study.

It is important to bear in mind that some treatments which look promising at first are often later found not to be as good as existing treatments, or to have side effects that outweigh any benefits.

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**JASCAP resources for living with cancer**

**Talking about your cancer**
Practical advice and guidance for cancer patients to help them communicate with family, friends, carers and health professionals about emotional and practical issues arising from a diagnosis of cancer and cancer treatment.

**Talking to children about cancer**
Practical advice and guidance to help parents with cancer talk to their children about their cancer.
Talking to someone with cancer
Practical advice and guidance for friends, carers and family members to help them talk to their friend or relative with cancer, and provide emotional and practical support.

*Note: JASCAP has booklets on each of the above subjects.*
Questions you might like to ask your doctor or surgeon

You can fill this in before you see the doctor or surgeon, and then use it to remind yourself of the questions you want to ask, and the answers you receive.

1. __________________________________________
   Answer _______________________________________
   ______________________________________________

2. __________________________________________
   Answer _______________________________________
   ______________________________________________

3. __________________________________________
   Answer _______________________________________
   ______________________________________________

4. __________________________________________
   Answer _______________________________________
   ______________________________________________

5. __________________________________________
   Answer _______________________________________
   ______________________________________________
**JASCAP : We need your help**

We hope that you found this booklet useful.

To help other patients and their families we need and intend to extend our Patient Information Services in many ways.

Our Trust depends on voluntary donations. Please send your donation by Cheque or D/D payable in Mumbai in favour of “JASCAP”.

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**Note for Reader**

This JASCAP booklet is not designed to provide medical advice or professional services and is intended to be for educational use only. The information provided through JASCAP is not a substitute for professional care and should not be used for diagnosing or treating a health problem or a disease. If you have, or suspect you may have, a health problem you should consult your doctor.
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