

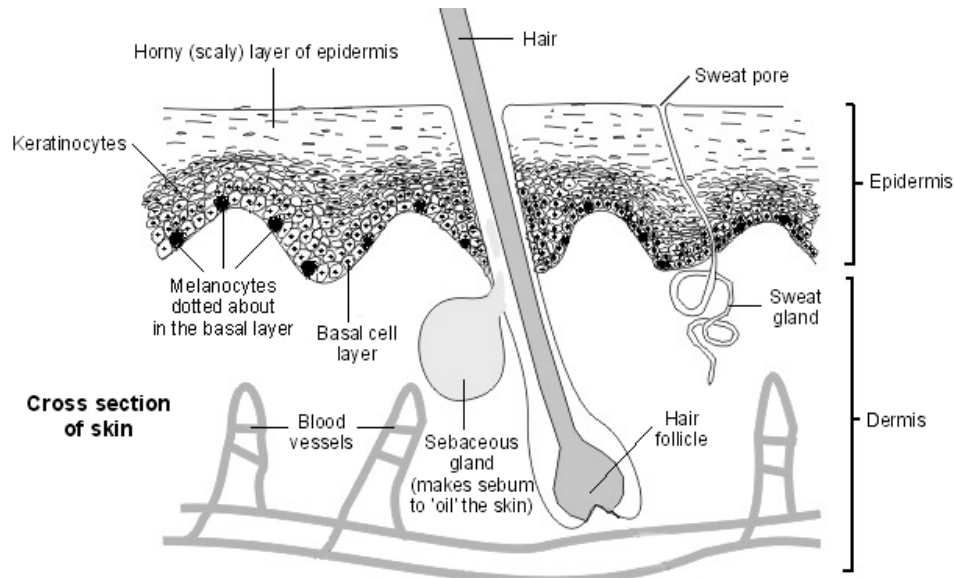
Skin Cancer

Understanding the skin

The skin has two layers - the epidermis and the dermis.

The epidermis has three main types of cell:

- Basal cells. These are the bottom layer of cells in the epidermis
- Keratinocytes. These cells are in layers above the basal layer. They make a substance called keratin which is a hard 'waxy' material. The top of the skin is constantly being shed and replaced by new dead cells which contain keratin.
- Melanocytes are cells dotted about at the bottom of the epidermis. They make a pigment called melanin which is transferred to nearby skin cells to protect them from the sun's rays. Melanin causes the skin to tan in fair skinned people. Dark skinned people have more active melanocytes.



What are cancer, skin cancer and tumours?

Cancer is a disease of the cells in the body. There are many different types of cell in the body, and there are many different types of cancer which arise from different types of cell. What all types of cancer have in common is that the cancer cells are abnormal and multiply 'out of control'.

Skin cancers are divided into:

- Basal cell carcinoma (BCC)- skin cancer which develops from basal cells.
- Squamous cell carcinoma (SCC)- skin cancer which develops from keratinocytes.
- Melanoma ('malignant melanoma'). This type of skin cancer develops from melanocytes.

Basal Cell Carcinoma (BCC)

These are the most common skin cancers. Although they can form on any part of the body, they tend to develop in areas which are sun exposed e.g. the face. They usually grow very slowly and can alter in shape as they grow. They often start as small lumps which in time start to crust over, bleed or start to ulcerate (rodent ulcer). BCCs rarely spread to other parts of the body. However, if left untreated they will continue to grow and start to damage nearby structures. e.g. A BCC on the eyelid if left to grow will grow into the socket and cause damage to the eyeball.

Squamous Cell Carcinoma (SCC)

These are the second most common skin cancer. Like most skin cancers, SCC tends to affect areas of sun exposed skin, typically starting as a small crusted/ scaly area or skin with a red or pink base. With time, SCC often starts to look like a wart and may ulcerate or bleed. As an SCC grows larger and deeper, it will start to damage nearby structures. For example, if left untreated, an SCC next to a nose or ear can grow into, erode, and then completely

destroy the nose or ear. An SCC may also spread to other areas of the body. However, this is uncommon in the early stages and most are treated before any spread occurs.

Melanoma (Malignant Melanoma)

Melanoma is the least common form of skin cancer, but it is the most serious. It is the one most likely to spread to other parts of the body. Melanoma becomes more common with increasing age, but still occurs in younger people. Melanoma is the third most common cancer in people aged 15-39. A typical melanoma starts as a small dark patch on the skin (similar to a mole). It can develop from a normal part of skin, or from an existing mole. A melanoma is often different to a mole in one or more of the following ways (summed up as ABCD) - that is:

- Asymmetry - the shape of a melanoma is often uneven and asymmetrical, unlike a mole which is usually round and even.
- Border - the border or edges of a melanoma are often ragged, notched or blurred. A mole has a smooth well-defined edge.
- Colour - the colour (pigmentation) of a melanoma is often not uniform. So there may be 2-3 shades of brown or black. A mole usually has one uniform colour.
- Diameter - the size of a melanoma is usually larger than a normal mole, and it continues to grow.

However, some melanomas are not dark, and some melanomas are not typical in how they look.

What causes skin cancer?

The cause of most skin cancers is sun damage to the skin. Most skin cancers are thought to be caused by excessive exposure to the sun. In particular, past episodes of sunburn significantly increase the risk. Skin cells which are damaged are at greater risk of becoming abnormal and cancerous. (See the leaflets on the individual cancers for other possible risk factors and causes.) Although skin cancer is rare in children, the amount of sun exposure during childhood is thought to increase the risk of developing skin cancers in adult life. Therefore, it is vital to protect children from too much sunshine

What is the treatment and outlook for skin cancer?

All three main types of skin cancer BCC, SCC and melanoma are curable if they are detected at an early stage. A small minor operation or other method to remove the affected area of skin is all that is required in early cases.

For non-melanoma skin cancers the overall cure rate is over 95%, even for ones which have been present a while. However, the larger they grow, the more difficult they are to treat. More extensive surgery or other localised treatments may be needed if they grow large or deep before they are treated. For melanomas, the risk of spread to other parts of the body is high. This is why urgent early treatment is needed. If it has already spread to other areas of the body then there is less chance of a cure. Treatments such as chemotherapy, radiotherapy or immunotherapy are used for melanomas which have spread.

How can I check for the early signs skin cancer

Try to get to know the site and look of the normal moles or marks on your body so that you will know if there has been any change. If you notice any new growth or new change on your skin and you do not know what it is then see a doctor. In particular, if you notice any change in the size, shape or colour of an existing mole, or if a new dark area of skin develops.

How can I prevent skin cancer from developing?

Most skin cancers are caused by excessive exposure to the sun. We should all limit our sun exposure in the summer months (or all year when in hot countries nearer the equator) by:

- Staying indoors or seeking the shade as much as possible during sunny days
- Covering up with clothes and a wide brimmed hat when we are out in the sunshine.
- Applying sunscreen with a sun protection factor of 15 or more to all exposed areas of skin when we are out in strong sunlight.
- In particular, children should be protected from the sun. Sunburn or excessive exposure to the sun in childhood is thought to be the biggest risk factor for the developing of skin cancer as an adult.