



SQUAMOUS CELL CARCINOMA

What are the aims of this leaflet?

This leaflet has been written to help you understand more about squamous cell carcinomas of the skin. It tells you what they are, what causes them, what can be done about them, and where you can find out more about them.

What is a squamous cell carcinoma?

A squamous cell carcinoma is a type of skin cancer. There are two main types of skin cancer: melanoma and non-melanoma skin cancer. Squamous cell carcinoma (SCC) is a non-melanoma skin cancer (NMSC), and the second most common type of skin cancer in the UK. NMSC accounts for 20% of all cancers and 90% of all skin cancers. SCC accounts for 23% of all NMSC.

What causes a squamous cell carcinoma?

The most important cause is too much exposure to ultraviolet light from the sun or other sources. This can cause the DNA of skin cells (keratinocytes) in the outer layer of the skin (the epidermis) to change. Sometimes this alteration in DNA allows the skin cells to grow out of control and develop into an SCC. Ultraviolet light damage can cause SCC directly, or sometimes it can induce a scaly area called an actinic keratosis or Bowen's disease. These can change into SCC if they are not treated.

Squamous cell carcinomas can also develop in skin damaged by other forms of radiation, in burns and persistent chronic ulcers and wounds and in old scars. Certain human viral wart viruses can also be a factor. However, SCC itself is not contagious.

Who is most likely to have a squamous cell carcinoma?

The following groups of people are at greater risk of developing SCC:

- Immunosuppressed individuals (people with reduced immune systems) either due to medical treatment, such as methotrexate, ciclosporin and azathioprine, or due to diseases which affect immune function, including inherited diseases of the immune system or acquired conditions such as leukaemia or HIV;
- Patients who have had an organ transplant because of the treatment required to suppress their immune systems to prevent organ rejection
- People who are more susceptible to sunburn;
- People who have had significant cumulative ultraviolet light exposure, for example:
 - people who have lived in countries near to the equator, or who have been posted to work in these countries, e.g. military personnel, construction workers;
 - outdoor workers, such as builders, farmers;
 - people of advanced years, who have had a lifetime of frequent sun exposure;
- People with skin conditions such as albinism and xeroderma pigmentosum that make them more susceptible to SCC.

Are squamous cell carcinomas hereditary?

No, they are not, but some of the risk factors, such as a tendency to burn in the sun, are inherited.

What does a squamous cell carcinoma look like?

SCC can vary in their appearance, but most usually appear as a scaly or crusty raised area of skin with a red, inflamed base. SCCs can be sore or tender and they can bleed but this is not always the case. They can appear as an ulcer.

SCC can occur on any part of the body, but they are more common on sun exposed sites such as the head, ears, neck and back of the hands.

How will my squamous cell carcinoma be diagnosed?

If your doctor thinks that the lesion on your skin needs further investigation, you will be referred to a Dermatologist. To confirm the diagnosis, a small piece of the abnormal skin (a biopsy), or the whole area (an excision biopsy), will be removed using a local anaesthetic and sent to a pathologist to be examined under the microscope. The results will usually be available within a week to ten days.

Can a squamous cell carcinoma be cured?

The vast majority of SCCs are low risk skin cancers and can be cured. A small number can recur locally and/or spread (metastasise) to the lymph nodes or to other parts of the body.

How can a squamous cell carcinoma be treated?

Surgery is usually the recommended treatment. This involves removing the SCC with a margin of normal skin around it, using a local anaesthetic. The skin is then closed with stitches or sometimes a skin graft is needed. Sometimes other surgical methods are used such as curettage and cautery. This involves scraping the SCC away using local anaesthetic.

Radiotherapy can also be used to treat SCC. This involves shining a beam of X-rays onto the skin. Usually several sessions are required.

For advanced SCC, a combination of treatments may be used. For SCC that has spread to other parts of the body a combination of surgery, radiotherapy and/or chemotherapy may be used.

Self care (What can I do?)

Examining your skin on an intermittent basis is strongly advised. If you have any concerns you should see your General Practitioner or Dermatologist. In particular, look out for new lesions, lesions that are increasing in size or are changing in appearance and/or lesions which do not heal as expected and/or form a recurrent scab.

How can I prevent SCC?

Reducing ultraviolet exposure will reduce the risk of getting an SCC.

Top sun safety tips

- Protect your skin with clothing, and don't forget to wear a hat that protects your face, neck and ears, and a pair of UV protective sunglasses.
- Spend time in 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. No sunscreen will provide 100% protection.
- It may be worth taking Vitamin D supplement tablets (available widely) as strictly avoiding sunlight can reduce Vitamin D levels. You should consult your doctor about this.

Treatment of areas of scaly sun damage (actinic keratosis and Bowen's disease) may reduce your risk of an SCC.

If you have had an SCC there are measures that you take to reduce your risk of a further skin cancer (see related [Patient Information Leaflet](#)).

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 get more information?

Web links to detailed leaflets:

<http://www.skincancer.org/squamous-cell-carcinoma.html>

<https://www.intelihealth.com/article/squamous-cell-carcinoma-of-the-skin>

<http://www.dermnetnz.org/lesions/squamous-cell-carcinoma.html>

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.

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

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