

Oral and Maxillofacial Surgery Department

This leaflet explains: **Bowen's disease (squamous cell carcinoma in situ)**

What are the aims of this leaflet?

This leaflet has been written to help you understand more about squamous cell carcinoma in situ (Bowen's disease). It tells you what it is, what causes it, what can be done about it, and where you can find out more about it.

What is squamous cell carcinoma in situ?

Squamous cell carcinoma in situ, often called Bowen's disease, is a growth of cancerous cells that is confined to the outer layer of the skin. It is not a serious condition, and its importance rests on the fact that, very occasionally, it can progress into an invasive skin cancer known as squamous cell carcinoma (see Patient Information Sheet on Squamous Cell Carcinoma for further information). For this reason, dermatologists usually treat, or at least monitor Bowen's disease.

What causes it?

Most cases of Bowen's disease develop as a result of long-term sun exposure, and it is more likely in those receiving long term immunosuppression medication. Very occasionally, Bowen's disease may be seen following radiotherapy, longstanding arsenic ingestion (very rare nowadays) or on the genitals in association with the virus that causes warts (the human papillomavirus). Bowen's disease is neither infectious, nor due to an allergy.

Is it hereditary?

No, but some of the factors that increase the risk of getting it, such as a fair skin and a tendency to burn in the sun, do run in families.

What are its symptoms?

Often there are no symptoms, although the surface may catch on clothing.

What does it look like?

A patch of Bowen's disease starts as a small red scaly area, which grows very slowly. It may reach a diameter of a few centimetres across. It commonly occurs on sun-exposed skin, especially the face, scalp and neck, as well as the hands and lower legs. More than one area may be present. The development of an ulcer or lump on a patch of Bowen's disease may indicate the formation of invasive squamous cell cancer.

How will it be diagnosed?

A patch of Bowen's disease can look rather like other scaly skin conditions, such as psoriasis. For this reason, a biopsy (a small sample of skin) may be needed to make the diagnosis.

Can it be cured?

Yes. As Bowen's disease is confined to the surface of the skin, there are a variety of ways in which this can be achieved (see below).

How can it be treated?

A number of treatments are available for Bowen's disease:

- **Freezing with liquid nitrogen.** This is done in the clinic. It causes redness, puffiness, blistering or crusting, and may be slow to heal. It can be done in stages for large patches.
- **Curettage.** This involves scraping off the abnormal skin under a local anaesthetic. The area then heals with a scab.
- **Excision.** The abnormal skin can be cut out, under local anaesthetic, provided it is not too large. This involves cutting around the lesion and stitching the skin which will leave a scar. If this method of treatment is chosen, you will be informed about the type of surgery planned and any other potential complications.
- **5-fluorouracil cream.** This is a cream that may control or eradicate the disorder. There are various different ways of using it, and, if it is felt to be the best treatment, the doctor who sees you will explain these to you. It works by killing the abnormal skin cells. This means that the skin will become red and look worse during treatment, and will then heal after the end of the course of treatment, once the abnormal cells have gone (see Patient Information Leaflet on 5-Fluorouracil Cream).
- **Imiquimod (Aldara) cream.** This was originally developed for the treatment of genital warts, but Imiquimod cream has been found useful in treating Bowen's disease. It also causes inflammation of the skin during treatment.
- **Photodynamic therapy.** A chemical is applied to the skin that makes the cells in the patch of Bowen's disease sensitive to particular wavelengths of light. Light from a specially designed lamp is then shone onto the patch. This treatment can be painful and cause inflammation; however, any inflammation should disappear within a few days.
- **Radiotherapy and laser** are other therapies occasionally used for the treatment of Bowen's disease.

Many factors play a part in selecting the right treatment:

- The size and thickness of the patch
- The number of patches
- The general state of the skin
- The patient's preference

If the affected area is judged to be thin and not likely to cause problems, your dermatologist may simply suggest that it is kept under observation in a clinic, or in some cases by yourself or by your GP.

Self care (What can I do?)

From now on, you should take sensible precautions to prevent additional patches of Bowen's disease developing. This means: - Protecting your skin with clothing, and not forgetting to wear a hat that protects your scalp, face, neck and ears, and a pair of UV protective sunglasses - Spending time in the shade between 10am and 3pm when it's sunny. - Choosing a sunscreen with a high protection SPF (SPF 30 or more) to protect against UVB, and looking for 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 frequently, especially after swimming, and in accordance with manufacturer's recommendations. Check your skin regularly for new patches. The smaller your patch of Bowen's disease is, the better the results of treatment are likely to be. If you think another one is developing, see your doctor about it promptly. If your patch changes in any way (e.g. bleeds, ulcerates or develops a lump) contact your doctor as soon as possible as this could be the start of an invasive skin cancer.

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 about Bowen's disease?

www.dermnetnz.org/lesions/bowen.html

Adapted from The British Association of Dermatologists

www.bad.org.uk