DermNet®
All about the skin

CUTANEOUS SQUAMOUS CELL CARCINOMA (CSCC) / SCC / SCC OF THE SKIN

Squamous cell carcinoma

CATEGORY:
Lesions (cancerous)

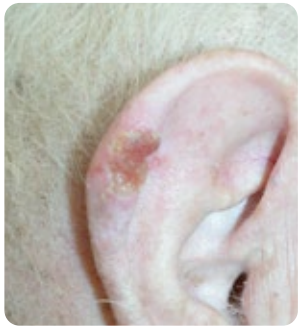
LOOKS LIKE:
May be coloured and a few mm to several cm in diameter

FEELS LIKE:
Scaly, rough, firm, or crusted

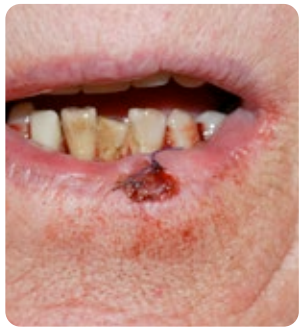
TREATMENT:
Requires removal

LOCATION:
Can occur anywhere; most common on sun-exposed sites eg, head, neck, arms, and legs

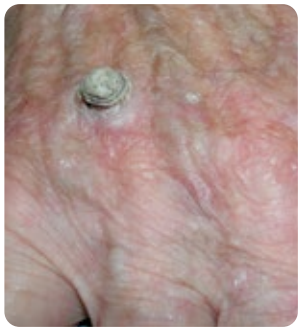
WHAT IT LOOKS LIKE —



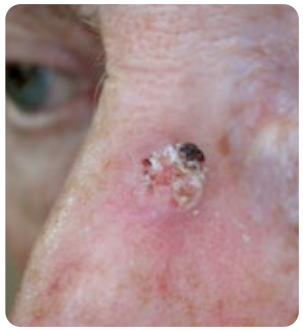
An ulcerated plaque (larger spot) on the ear due to SCC



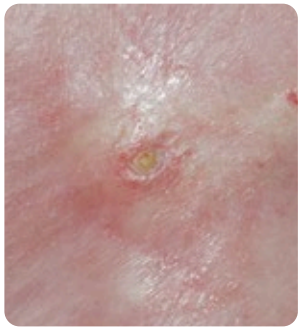
Thickening and ulceration (crater-like sore) on the lower lip due to SCC



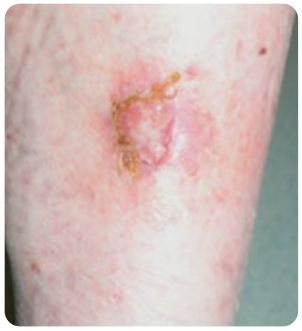
A warty cap overlying an ulcerated SCC on a sun-damaged back of the hand



A scaly crust overlying an SCC on the nose



A new small ulcerated SCC in an old burn scar



An ulcerated SCC on the shin

What is it?

Cutaneous squamous cell carcinoma (SCC) is the second most common type of skin cancer. It is different from melanoma, and so is classified as a type of non-melanoma skin cancer.

You are also more likely to get SCC if you have pale skin, a weakened immune system, extensive sun exposure; or a history of skin cancers, sun spots (actinic keratoses), or skin injuries like burns.

Note: SCCs can also occur elsewhere in the body, but this leaflet refers to SCC of the skin only.

Squamous cell carcinoma

CAUSES —

In SCC, the cancer starts in squamous cells — thin, flat cells in the top layer of skin.

Most SCCs are linked to **ultraviolet (UV) radiation** exposure from sun damage or sunbed use, which causes changes (mutations) in squamous cells leading to SCC growth. This is why sun protection is very important.

While SCC doesn't usually run in families, our genetics can also play a part. An increased risk of SCC may be passed on in people with rare genetic conditions such as albinism and xeroderma pigmentosum.

SYMPTOMS —

SCCs can vary in how they look and feel. Often, an SCC looks like a patch or lump on the skin that:

- Can be firm, scaly, rough, or crusted
- Is a few mm to several cm in size
- Grows quite quickly (over weeks to months)
- Is skin-coloured, pink, or sandy brown
- May be tender or painful
- May turn into an open sore (ulcerate), ooze, or bleed
- Sometimes has a tough 'horn' sticking out.

SCCs can occur anywhere on the skin but are most common on sun-exposed areas particularly the head, neck, hands, forearms, and lower legs. Sometimes they arise in an old poor-healing wound or scar.

COMPLICATIONS —

- SCCs can **metastasise** (spread) to other parts of the body eg, lymph nodes, lungs, liver, brain, and bones. This can sometimes be fatal.
- **Recurrence** after treatment is not uncommon, especially for large SCCs.

DIAGNOSIS —

All new, changing, or unusual skin spots should be checked by your doctor. They may suspect an SCC by looking at it, often with the help of a handheld magnifying tool (**dermatoscope**).

Diagnosis is usually confirmed with a **biopsy**, which involves removing and sending part or all of the skin spot to the laboratory for testing.

For high-risk SCCs, scans (imaging) or lymph node testing may be done to check if the cancer has spread.

TREATMENT AND PREVENTION —

Sun protection is crucial to reduce your SCC risk. Apply sunscreen, wear sun protective clothing, avoid sunbeds, and limit sun exposure, particularly during the middle of the day.

Regular **skin checks** with your doctor are also recommended to catch any changes early.

SCCs are almost always removed using surgical techniques such as:

- Cutting them out (**excision**), sometimes with a skin graft to help close large wounds
- Mohs micrographic surgery — a special type of excision done layer by layer
- Scraping them off (curettage)
- Shaving them off (shave biopsy)
- Freezing them (cryotherapy)
- Applying heat (electrocautery) to destroy them.

Removal may leave a scar.

In some cases, radiotherapy or specialised medications may also be used.

OUTCOME —

Most SCCs are cured with treatment, however recurrence is common. Having had SCC increases your risk of having skin cancer again in future.

Vitamin B3 (nicotinamide) may reduce the risk of further SCCs in some patients — discuss with your doctor if this is right for you.

MORE INFORMATION —
https://dermnetnz.org/topics/cutaneous-squamous-cell-carcinoma

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Last reviewed in 2025 by Dermatologists from DermNet.