CONDITION

Squamous cell type skin cancer

Squamous cell skin cancer is a growth of abnormal skin cells that is usually curable when found and removed early.

WHAT IT IS
Cancer arising from squamous cells in the skin

BODY SYSTEM
Skin

MAIN SYMPTOMS
Scaly patch, firm lump, open sore, bleeding growth

WHAT CAUSES IT
DNA damage, most often from ultraviolet light

HOW IT IS DIAGNOSED
Skin examination and biopsy

MAIN TREATMENT
Surgical removal

CAN IT BE CURED?
Yes - most localised cancers are removed completely

IS IT AN EMERGENCY?
Sometimes - bleeding that will not stop

LONG-TERM OUTLOOK
Usually excellent early; advanced cases are harder to control

Overview

Squamous cell skin cancer, also called cutaneous squamous cell carcinoma or SCC, begins in squamous cells. These are flat cells found near the surface of the skin.

Most SCCs grow slowly and remain in the area where they started. When found early, they can usually be removed completely. Some grow more deeply, return after treatment, or spread to nearby lymph nodes or other parts of the body. Early assessment matters because treatment is generally simpler before a growth becomes large or deep.

SCC can develop anywhere on the skin. It is common on areas that receive years of sunlight, such as the face, ears, scalp, neck, hands and forearms. It can also occur on the lips, genitals, inside scars, or in areas that receive little sun.

An early form called squamous cell carcinoma in situ, sometimes called Bowen disease, is limited to the top layer of skin. Invasive SCC has grown into deeper layers.

SCC is different from basal cell skin cancer and melanoma. These skin cancers arise from different cells and can behave differently.

Symptoms

SCC does not have one single appearance. It may look like:

Some SCCs are tender, painful or itchy. Others cause no discomfort. A growth may develop within a long-standing scar, burn injury or skin ulcer.

On the lip, SCC may appear as a lasting rough area, thickened patch or sore. Around a nail, it may resemble a wart and can cause nail changes.

Skin cancer can look different across skin tones. On darker skin, SCC may be red, brown, purple, grey or close to the surrounding skin colour. It may also be more likely to appear in scars or on areas not regularly exposed to sunlight.

These changes can have non-cancerous causes. A clinician needs to examine the area, and a biopsy is usually required to confirm what it is.

- A rough, scaly or crusted patch that persists
- A firm, raised lump, sometimes with a central crust
- A sore that does not heal or repeatedly breaks open
- A wart-like growth that becomes larger
- A red or brown patch with clear edges
- A growth that bleeds after minor contact

Causes and risk factors

SCC develops when DNA inside a squamous cell becomes damaged. DNA provides the instructions that control how cells grow. Damaged cells may begin multiplying when they should not.

Ultraviolet, or UV, radiation is the main source of this damage. UV radiation comes from sunlight and tanning beds. The effect builds over time, although intense sunburns also contribute to skin damage.

Factors linked with a greater chance of SCC include:

Smoking is an additional risk factor for SCC of the lip. Exposure to substances such as arsenic can also increase risk.

SCC is not contagious. You cannot catch it from or pass it to another person.

- Long-term sun or tanning-bed exposure
- Skin that burns easily, although any skin tone can be affected
- Older age
- Previous SCC or another skin cancer
- Actinic keratoses, which are rough, sun-damaged patches
- A weakened immune system, including after an organ transplant
- Previous radiation treatment to the affected skin
- Long-standing wounds, ulcers, burns or scars
- Certain inherited conditions that make skin highly sensitive to UV radiation
- Some types of human papillomavirus, especially in genital or nail-area SCC

Diagnosis

A clinician will examine the growth and the surrounding skin. They may also check for other unusual spots and feel nearby lymph nodes for swelling.

The diagnosis is confirmed with a skin biopsy. During a biopsy, part or all of the abnormal area is removed after the skin has been numbed. A laboratory specialist examines the tissue under a microscope.

The biopsy report can show whether the growth is SCC, how deeply it has entered the skin and how abnormal the cells appear. These features help estimate the chance of recurrence or spread.

Many small SCCs do not need scans. Imaging, such as an ultrasound, CT scan or MRI, may be considered if the cancer is large, deep, close to important nerves, or linked with swollen lymph nodes. A suspicious lymph node may also need a needle biopsy.

Clinicians group SCCs by risk rather than size alone. Location, depth, cell appearance, nerve involvement, immune-system health and whether the cancer has returned can all affect treatment planning.

Treatment and management

Treatment aims to remove or destroy the cancer while protecting healthy tissue and function. The best approach is based on the tumour's size, depth, location and biopsy findings, as well as your general health and preferences.

Standard surgical removal cuts out the cancer with a border of normal-looking skin. The removed tissue is checked to see whether the edges are free of cancer cells.

Mohs surgery removes the growth in thin layers. Each layer is examined while you wait, and more tissue is removed only where cancer remains. It is often used for higher-risk SCCs, cancers that have returned, or growths in places where preserving healthy tissue is important, such as the face.

Curettage and electrodesiccation scrape away the growth and use an electric current to treat remaining cells. This may be suitable for selected small, low-risk or very superficial growths.

Some SCC in situ lesions can be treated with prescribed skin creams, freezing treatment or light-based therapy. These treatments are not suitable for every SCC because they may not reach cancer growing deeper in the skin.

Radiation therapy uses high-energy rays to damage cancer cells. It may be an option when surgery is not appropriate or would cause major loss of function. It may also be used after surgery when certain findings suggest a greater risk of cancer remaining or returning.

If SCC has spread or cannot be treated adequately with surgery or radiation, systemic treatment may be offered. Systemic treatment travels through the body. It may include immunotherapy, which helps the immune system recognise and attack cancer cells. Chemotherapy or targeted medicines are used in some situations.

After treatment, follow-up usually includes skin and lymph-node examinations. The schedule is based on the cancer's risk features and your history.

Complications

An untreated SCC can grow into nearby tissue. Depending on its location, this may damage skin, cartilage, bone, nerves or other structures. Larger treatment areas may leave a scar or affect movement and appearance.

SCC can return in or near the treated area. Having one SCC also means you have a greater chance of developing another skin cancer in the future.

A small proportion spread to nearby lymph nodes or, less often, to distant organs. Spread is more likely with cancers that are large, deep, fast-growing, poorly defined under the

microscope, or growing around nerves. SCCs on the ear or lip and those in people with weakened immune systems may also carry greater risk.

Treatment can cause pain, swelling, bleeding, infection, numbness or scarring. Your treatment team should explain the likely effects of the method being considered.

Prevention

Not every SCC can be prevented. This is especially true when inherited conditions, immune suppression, previous radiation or chronic scars contribute to risk. Reducing UV exposure can lower avoidable skin damage.

Helpful measures include:

Sunscreen is one part of protection, not a way to extend time in strong sunlight.

If you take medicine that suppresses your immune system, do not stop or change it to reduce skin-cancer risk without medical advice. Regular skin checks may be recommended instead.

- Seeking shade when sunlight is strong
- Wearing tightly woven clothing, a broad-brimmed hat and sunglasses
- Applying broad-spectrum sunscreen to exposed skin and reapplying as directed
- Avoiding tanning beds and sunlamps
- Protecting children from sunburn
- Checking your skin for new or changing growths

Living with it and what to expect

Most people with an early SCC have it removed through a procedure performed with local anaesthetic. The wound may be closed with stitches, left to heal naturally or repaired with a skin graft or flap. Healing may take several weeks, depending on the size and site.

A scar is expected after surgery, although it often softens and fades over months. Numbness or sensitivity around the area can also improve with time, but some changes may remain.

Follow-up is important even after successful treatment. SCC can return, and a new skin cancer may develop elsewhere. Become familiar with your skin and report a new growth, a changing spot or a problem around the treatment scar. Your clinician can advise how often professional checks are appropriate.

Advanced SCC can require longer-term treatment and repeated scans or appointments. Some

advanced cancers respond well to immunotherapy, while others are difficult to control. The course cannot be predicted from appearance alone.

Skin cancer and visible treatment scars can affect confidence or cause worry about recurrence. Practical support, counselling or patient support groups may help if these concerns interfere with daily life.

When to get medical help

Arrange a routine but prompt appointment if you notice:

Contact your treatment team promptly if a treated area becomes increasingly red, hot, swollen or painful, or produces pus. These can be signs of infection. Also seek prompt assessment for a new lump near the affected area, such as in the neck, armpit or groin.

Seek urgent medical help if bleeding from a skin growth or surgical wound does not stop with firm, continuous pressure.

Emergency care is also appropriate for severe breathing difficulty, collapse or another sudden serious symptom. SCC itself rarely causes an immediate emergency.

- A scaly patch, lump or sore that lasts for several weeks
- A spot that repeatedly crusts, bleeds or fails to heal
- A growth that is becoming larger, firmer or more painful
- A new change within a scar, burn or long-standing ulcer
- A change near a previous SCC treatment site

Common questions

Is squamous cell skin cancer serious?

It can be, but most cases are found while still limited to the skin and are cured with treatment. The risk is greater when an SCC is deep, large, recurrent, affecting nerves, or has spread beyond the skin.

How quickly does squamous cell skin cancer grow?

Growth rates differ. Some SCCs change slowly over months, while others enlarge over weeks. A rapidly growing, painful or bleeding lesion should be assessed promptly, but its speed alone cannot confirm the diagnosis.

Can squamous cell skin cancer spread?

Yes, although most cases do not. When SCC spreads, it often reaches nearby lymph nodes first. Biopsy findings, location, depth and immune-system health help clinicians estimate this risk.

What does early squamous cell skin cancer look like?

It may look like a persistent rough patch, a crusted lump or a sore that does not heal. It can be pink, red, brown, grey or skin-coloured. Appearance alone cannot reliably separate SCC from other skin conditions.

Does squamous cell skin cancer come back after removal?

It can return, particularly when it has high-risk features or was not fully removed. Most treated SCCs do not recur. Follow-up checks help find recurrence or a new skin cancer early.

Is squamous cell skin cancer the same as melanoma?

No. SCC starts in squamous cells, while melanoma begins in pigment-producing cells called melanocytes. Melanoma is generally more likely to spread, but advanced SCC can also be serious and needs appropriate treatment.

Sources

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