CONDITION

Nonmelanoma skin cancer

Nonmelanoma skin cancer is cancer that starts in skin cells other than pigment-producing melanocytes.

WHAT IT IS
Cancer arising in skin cells other than melanocytes

BODY SYSTEM
Skin

MAIN SYMPTOMS
New growth, nonhealing sore, scaly patch, changing bump

WHAT CAUSES IT
Usually ultraviolet damage to skin-cell DNA

HOW IT IS DIAGNOSED
Skin examination and biopsy

MAIN TREATMENT
Surgery, sometimes topical, radiation, or systemic treatment

CAN IT BE CURED?
Yes - most early cancers are curable

IS IT AN EMERGENCY?
Sometimes - uncontrolled bleeding or severe wound infection

LONG-TERM OUTLOOK
Usually excellent early; advanced squamous cancer can be serious

Overview

Nonmelanoma skin cancer is a broad name for cancers that begin in skin cells other than melanocytes, the cells that make skin pigment. It is different from melanoma.

The two main types are basal cell carcinoma and cutaneous squamous cell carcinoma. Basal cell carcinoma starts in cells near the bottom of the skin's outer layer. It usually grows slowly and rarely spreads to distant parts of the body. Squamous cell carcinoma starts in flatter cells closer to the skin's surface. It is also often curable, but some forms can grow deeply or spread.

Other nonmelanoma skin cancers are much less common and may behave differently. They need their own specialist assessment and treatment plan.

These cancers matter because untreated growth can damage nearby skin, nerves, cartilage, or

bone. Treatment is usually simpler when the area is found early. A new or changing skin mark is not automatically cancer, but one that persists should be examined.

Nonmelanoma skin cancer can affect any skin tone. It often appears on sun-exposed skin, but it can develop anywhere, including places that receive little sun.

Symptoms

The appearance can differ by cancer type, body area, and skin tone. A spot may be skin-coloured, pink, red, brown, dark, or partly translucent.

Basal cell carcinoma may look like a shiny or pearly bump, a flat scar-like area, or a sore that repeatedly crusts, bleeds, and seems to heal. Small visible blood vessels may cross its surface.

Squamous cell carcinoma may appear as a rough or scaly patch, a firm raised bump, or an open sore. Some growths develop a central crust or a horn-like surface. They may feel tender, painful, itchy, or numb, although many cause no discomfort.

Changes worth arranging an examination for include:

These signs can have noncancerous causes. Appearance alone cannot confirm the diagnosis.

- A sore that does not heal
- A growth that repeatedly bleeds or crusts
- A rough patch that persists or enlarges
- A scar-like area without a known injury
- A bump that changes in size, shape, colour, or texture
- A new growth within a scar or long-lasting wound

Causes and risk factors

Nonmelanoma skin cancer develops when DNA in a skin cell becomes damaged and the cell begins growing without normal control. Ultraviolet radiation from sunlight and indoor tanning is the main preventable source of this damage. Exposure adds up over time, although intense episodes of sunburn also matter.

Risk rises with age because DNA damage can accumulate. However, younger adults can also be affected.

Other factors that can increase risk include:

Squamous cell carcinoma can sometimes be linked to certain human papillomavirus infections, especially around the genitals or in people with weakened immunity. Most nonmelanoma skin cancers are not caused by an infection and are not contagious.

- A history of skin cancer or precancerous skin changes
- Skin that burns easily, although every skin tone can be affected
- Long-term outdoor work or recreation without adequate sun protection
- Indoor tanning
- A weakened immune system, including after an organ transplant
- Previous radiation treatment to the skin
- Long-standing scars, burns, ulcers, or areas of inflammation
- Exposure to certain substances, such as arsenic
- Rare inherited conditions that reduce protection from ultraviolet damage

Diagnosis

A healthcare professional will examine the area and may check the rest of your skin. A magnifying tool called a dermatoscope can help reveal structures that are difficult to see with the unaided eye.

A biopsy confirms the diagnosis. During a biopsy, some or all of the abnormal tissue is removed and examined under a microscope. Local anaesthetic is normally used to numb the area. The laboratory report identifies the cancer type and may describe features that help estimate its risk of returning or spreading.

Many basal cell and low-risk squamous cell cancers need no further tests. Imaging scans or examination of nearby lymph nodes may be considered when a squamous cell cancer is large, deep, recurrent, near important structures, or has other higher-risk features.

The results guide treatment. Important details include the cancer's type, size, depth, location, growth pattern, and whether it has reached nerves or other tissues.

Treatment and management

The aim is to remove or destroy the cancer while preserving healthy tissue and function. The best approach is influenced by the cancer's features, where it is located, previous treatment, and your overall health.

Standard surgical removal, called excision, removes the growth with a margin of surrounding skin. The tissue is examined to check whether cancer cells reach the cut edges.

Mohs surgery removes thin layers one at a time. Each layer is checked under a microscope while the procedure continues. This can spare healthy skin while allowing close examination of the edges. It is often considered for cancers in sensitive areas, cancers with a higher risk of returning, or those with poorly defined borders.

Some small, low-risk growths can be scraped away and treated with heat. This is called curettage and electrodesiccation. Other superficial cancers may be treated with prescribed creams, freezing, or light-activated treatment. These methods are not suitable for every type or depth.

Radiation therapy uses targeted high-energy rays. It may be an option when surgery is not suitable or when there is concern about remaining cancer cells after surgery.

Advanced cancer may require treatment that works throughout the body. Options can include immunotherapy, which helps the immune system attack cancer, or targeted therapy aimed at specific signals used by cancer cells. These treatments are generally managed by a specialist cancer team.

After treatment, protect the wound as directed and attend follow-up visits. Report increasing redness, swelling, discharge, pain, or wound separation rather than waiting for a routine review.

Complications

Both major types can return after treatment. Having one skin cancer also raises the chance of developing another, which may be a different type or in a different location.

A growing cancer can damage nearby tissue and leave a larger wound after removal. Depending on its position, this may affect the eyelid, nose, ear, lip, nerves, cartilage, or bone. Treatment can cause scarring, changes in sensation, or changes in appearance.

Basal cell carcinoma very rarely spreads to distant organs, but it can be locally destructive if neglected. Squamous cell carcinoma has a greater ability to spread to lymph nodes or other organs, particularly when it has higher-risk features. Advanced spread can be serious.

Prevention

Not every nonmelanoma skin cancer can be prevented. Age, inherited conditions, previous treatment, and the need for immune-suppressing medicines cannot always be changed.

Reducing ultraviolet exposure can lower risk but cannot guarantee prevention.

Protective steps include seeking shade when sunlight is strong, wearing covering clothing and a broad-brimmed hat, and using broad-spectrum, water-resistant sunscreen on exposed skin. Sunscreen should support, not replace, shade and clothing. Reapply it according to the product directions, especially after swimming or sweating.

Avoid indoor tanning. Check your skin periodically so that you know what is usual for you. A mirror or help from someone you trust may be useful for your back, scalp, and other hard-to-see areas.

If you take medicine that suppresses your immune system, do not stop or change it because of skin cancer concerns. Your treating team can balance the medicine's benefits with skin monitoring and sun protection.

Living with it and what to expect

Most basal cell and early squamous cell cancers are cured with local treatment. Healing may take several weeks, depending on the treatment, wound size, location, and your general health. Scars often change in colour and texture over many months.

Follow-up is used to examine the treated area and look for new skin cancers. How often this is needed is based on the cancer type, its risk features, your immune health, and whether you have had previous skin cancers. Higher-risk squamous cell cancer usually needs closer monitoring than a small, low-risk basal cell cancer.

A scar, numb patch, or altered skin texture may remain even when treatment has removed the cancer. Some people need reconstructive treatment when a large area or an important facial structure is involved.

New cancers can appear months or years later. This does not necessarily mean the original cancer has spread. Learning the usual pattern of your skin and reporting persistent changes can help new areas be assessed sooner.

Advanced nonmelanoma skin cancer has a less predictable course. Treatment may control it for a period rather than remove it permanently. Specialist teams can also help with pain, wound care, appearance changes, and the emotional effects of ongoing treatment.

When to get medical help

Arrange a routine appointment if you notice a sore that does not heal, a persistent scaly patch,

a new lump, or a spot that repeatedly crusts or bleeds. Also seek assessment if a scar or long-standing wound develops a new growth.

Contact your healthcare team promptly if a diagnosed or treated area grows quickly, becomes increasingly painful, develops numbness, or forms a new lump nearby. New swelling in the neck, armpit, or groin also needs timely assessment, particularly after squamous cell carcinoma.

After a procedure, seek urgent medical advice for spreading redness, worsening swelling, pus, fever, or increasing pain. These can be signs of wound infection.

Go to emergency care for bleeding that is heavy or does not stop with firm, continuous pressure. Emergency assessment is also appropriate for severe illness with confusion, fainting, breathing difficulty, or rapidly spreading redness around a wound.

Most suspicious skin changes are not emergencies, but they should not be ignored for months while they continue to change.

Common questions

Is nonmelanoma skin cancer the same as melanoma?

No. Melanoma begins in pigment-producing melanocytes and often has a different pattern of spread and treatment. "Nonmelanoma" mainly refers to basal cell and squamous cell cancers, although it can include several rarer types.

Can nonmelanoma skin cancer spread?

It can, but the risk differs by type. Basal cell carcinoma almost never spreads to distant sites, though it can grow into nearby tissue. Squamous cell carcinoma is more likely to spread, especially if it is deep, recurrent, rapidly growing, or has other higher-risk features.

How fast does it grow?

There is no single growth rate. Many basal cell cancers enlarge slowly over months or years. Squamous cell cancers may grow more quickly. A rapidly changing growth needs prompt assessment, but its speed alone cannot confirm what it is.

Will it come back after removal?

It may return, particularly if it had higher-risk features or cancer cells remained at the tissue edge. Many treated cancers never return. You can also develop a separate new skin cancer elsewhere, so follow-up and awareness of new changes remain important.

Is nonmelanoma skin cancer contagious?

No. You cannot catch it through touching, sharing personal items, or close contact. Certain

viruses may contribute to a minority of squamous cell cancers, but the cancer itself cannot spread from one person to another.

Do all nonmelanoma skin cancers need surgery?

No. Surgery is common and often provides the highest chance of complete removal, but superficial or selected cancers may be treated with creams, freezing, light-based treatment, or radiation. Advanced cancers may need systemic treatment. The appropriate option depends on the confirmed type and risk features.

Sources

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