National Comprehensive Cancer Network®

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NCCN Guidelines for Patients®

Cancer care recommendations from leading experts at the National Comprehensive Cancer Network® (NCCN®)

Squamous Cell Skin Cancer



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NCCN Guidelines for Patients®

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Because cancer care is always evolving, NCCN develops and frequently updates evidence-based cancer care recommendations used by health care providers worldwide. These recommendations are known as the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®).

The NCCN Guidelines for Patients plainly explain these expert recommendations, so you can talk with your care team about the best care for you.

These NCCN Guidelines for Patients are based on the NCCN Guidelines® for Squamous Cell Skin Cancer, Version 1.2027 — October 8, 2026

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About squamous cell skin cancer

5 What is squamous cell skin cancer?

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7 How is SCSC treated?

8 How can I get the best care?

Squamous cell skin cancer (SCSC) is a common skin cancer that can be successfully treated. This guide provides the latest information on SCSC testing, diagnosis, and treatment to help you make informed decisions with your doctor.

What is squamous cell skin cancer?

Cancer that starts in the skin's squamous cells is called squamous cell skin cancer. It's also called cutaneous (skin) squamous cell carcinoma. In this guide, it's referred to as squamous cell skin cancer, or SCSC.

Squamous cell skin cancer is the second most common type of skin cancer, after basal cell skin cancer. Most SCSCs are caused by spending too much time in the sun over the course of many years, especially in people who sunburn easily. In other words, ultraviolet (UV) light (radiation from the sun) can cause squamous cells to change and turn to cancer.

Cell changes

Squamous cells are found in the top layer of the skin's epidermis. When squamous cells change (mutate) and grow out of control, they can form spots, also known as **lesions** or **tumors.** This cancer usually develops in areas often exposed to the sun, including the face, head, ears, neck, arms, and hands. But it can occur anywhere on the body.

SCSC is usually a slow-growing cancer. So it can be treated and typically cured once it's diagnosed. But SCSC should be treated right away because it can grow and invade surrounding areas, causing disfigurement. It can also sometimes spread to the lymph nodes (small, bean-shaped structures of the immune system). In rare cases, it can metastasize (spread) to distant organs.

Where SCSC starts

To understand SCSC, it helps to know where it begins. Most skin cancers form in the cells of the epidermis, which has 3 main types of cells:

- **Squamous cells** – These are flat cells found in the upper part of the epidermis. SCSC starts in these cells.
- **Basal cells** – Found in the lower part of the epidermis, basal cells constantly divide to form new cells that replace the squamous cells on the skin's surface. Basal cell skin cancer starts in these cells.
- **Melanocytes** – Melanocytes are cells located in the lower part of the epidermis that produces melanin. Melanin is responsible for hair, skin, and eye color.

Skin lesions

Squamous cell skin cancer can be found anywhere on the body, but most commonly where there's sun exposure. Here's an SCSC lesion on a person's forehead.



It also protects the skin from harmful ultraviolet (UV) light. Melanoma skin cancer starts in these cells.

This patient guideline is about squamous cell skin cancer. For more information on **basal cell skin cancer** or **melanoma,** read the related *NCCN Guidelines for Patients,* available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.





What are the signs and symptoms?

Squamous cell skin cancer can happen to anyone, but it's most common in people with lighter skin, lighter hair, or lighter eyes. Its lesions sometimes bleed, itch, or cause pain and can look like any of the following:

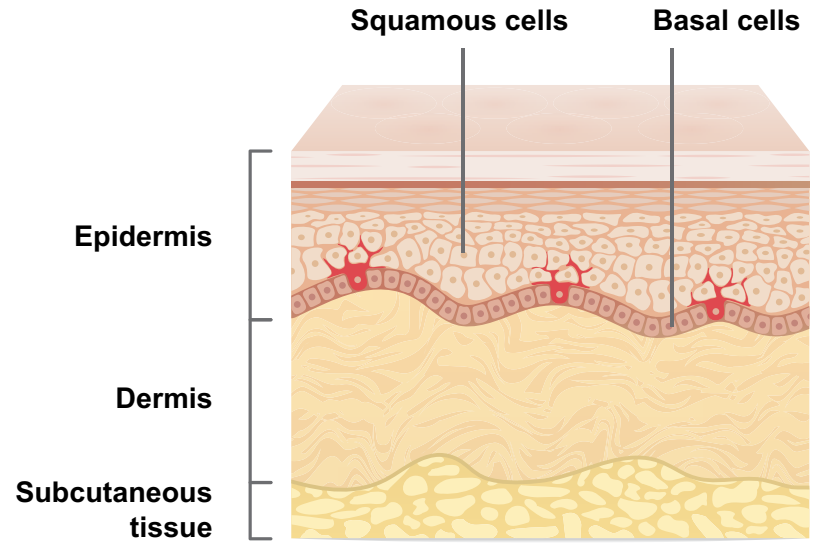
- A scaly patch
- A firm red bump
- A wart-like growth
- A sore that heals and then reopens
- A raised growth with a depression (dent) in the middle

On lighter skin, SCSC lesions typically appear pink or red. But on darker skin, they can appear pink, red, the same color as the surrounding skin, or brown or black. In people with darker skin, they are also more likely to appear in areas that get less sun exposure, like the lower legs or feet, groin, and scalp.

Any new, growing, or changing skin spot should be checked by a dermatologist. Spots that don't heal or that heal and come back should also be looked at closely.

Layers and cell structure of skin

Squamous cells are found in the top layer of skin, called the epidermis. SCSC starts there.



What are the causes and risk factors?

You're more likely to get squamous cell skin cancer if you have certain risk factors. A risk factor increases the chance of developing cancer. Risk factors for SCSC include:

- **UV light exposure** – UV light (radiation) that comes from the sun or tanning beds increases your risk.
- **Fair skin, red or blond hair, or light eye color** – People with light-colored skin are at a higher risk of developing skin cancer because they have less melanin (skin pigment) to filter out the sun's harmful UV rays.
- **Age** – Risk increases with age because sun exposure builds up over time. But skin cancer is becoming more common in younger people.
- **History of skin cancer** – If you or someone in your family has had skin cancer, you're more likely to develop any type of skin cancer.
- **Actinic keratoses** – Actinic keratoses are precancerous lesions. They are an area of scaly or rough skin caused by sun exposure over time that have a greater chance of becoming SCSC.
- **Scars and chronic wounds** – SCSC can form in scars or chronic (non-healing) wounds, such as ulcers (sores) and burns.

Other risk factors

- **Environmental toxins** – Exposure to pollutants, such as tobacco smoke, exhaust from cars or other vehicles, and arsenic (which can be found in soil, water, and air), can result in skin damage that can lead to squamous cell skin cancer.
- **Immune suppression** – People with weakened immune systems from organ transplants or autoimmune diseases are at higher risk for squamous cell skin cancer.
- **Genetic syndromes** – Certain genetic syndromes put you at higher risk for SCSC. Examples include xeroderma pigmentosum (XP), a condition in which the body can't repair damage to DNA caused by sunlight, and albinism, which is when the body produces little to no melanin. Skin cells with a lot of DNA damage can eventually become skin cancer. See Chapter 6 for more information.

How is SCSC treated?

SCSC is highly treatable and often curable. Catching it and treating it early are key.

Surgery is the most common treatment for SCSC. But treatment depends on how advanced the cancer is. SCSC can be either local or advanced. See *Chapter 2: Testing for SCSC* for how it's tested and diagnosed.

Local

When SCSC is in one area and hasn't spread, it's called local SCSC. This includes precancer and very early-stage cancer, as well as low-, high-, and very high-risk SCSC. It's typically treated with some type of surgery. Very infrequently, radiation or systemic therapy may be used. For more information on how it's treated, see *Chapter 4: Treating local SCSC.*

Advanced

When SCSC has spread beyond the original lesion, it's considered advanced. Advanced SCSC includes certain types of cancer, such as locally advanced, satellitosis (nearby tiny tumors), in-transit (tiny tumors traveling in the lymph vessels), nodal disease (cancer in lymph nodes), and metastatic (distant spread).

Advanced SCSC can be treated with surgery but, depending on where it's located, is more commonly treated with radiation therapy, systemic therapy, or regional therapy. For more details on treatment, see *Chapter 5: Treating advanced SCSC.*

When squamous cell skin cancer returns to the area where it was originally found, it's called recurrence. Recurrent SCSC is considered advanced. Recurrence can also be when SCSC comes back and has metastasized (spread) to lymph nodes or distant parts of the body. For more information on recurrence, see Chapter 5.

After treatment, you'll have full skin exams with your doctor at least once a year to look for recurrence and to encourage prevention of future SCSC. See *Chapter 6: After treatment and prevention* for more information.

How can I get the best care?

Advocate for yourself. You have an important role to play in your care. Many people feel more satisfied when they actively take part in planning their cancer care.

The *NCCN Guidelines for Patients* will help you play a larger role in your care. Discuss the recommendations in this guide with your care team. Ask questions about your options and share your goals and concerns. Don't know what to ask? You're not alone. That's why we include suggested questions to ask at the end of chapters.

Keep reading to find the best care for you.

How this guide can help you

Making decisions about cancer care is stressful. There's a lot to learn, and you don't know what the future holds.

Use this guide to get the information and support you need.

Patients, doctors, and other health care professionals trust the NCCN Guidelines for Patients. This guide uses clear, everyday language to explain current cancer care recommendations made by respected experts in the field. Their recommendations are based on the latest research and practices at leading cancer centers.

Your health is unique to you, so your cancer care should be, too. As you read this guide, you'll learn which treatments are likely to provide the best results for you. And you'll be better prepared to talk with your care team.

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Testing for SCSC

10 First tests

12 More tests for confirmed SCSC

13 Diagnosis

14 Local SCSC

16 Advanced SCSC

17 Key points

17 Questions to ask

Squamous cell skin cancer is diagnosed through a series of tests. After diagnosis, it's assigned a risk group for how likely it is to recur (regrow) or if it's advanced. Then it's treated based on that information. This chapter explains how diagnosis works.

You may have noticed a spot (called a lesion or tumor) or an area that might look or feel unusual. Maybe it's a firm bump or a spot that's red, scaly, crusty, or itchy, or a sore that's just not healing. At that point, you go to the dermatologist to get it checked. Your doctor will want to get a better look at it and run some tests. See **Guide 1**. Here's what you might expect.

Guide 1
Common tests for SCSC

Physical exam and health history
Biopsy
Complete skin exams
Lymph node exam
Imaging tests (for lesions that might have spread)

First tests

Physical exam and health history

Your doctor will ask about your and your family's health history and will examine the area where the lesion is located. You'll likely be asked about when you first noticed it, if it's causing itching or bleeding, and if it's changed since you first found it. At that point, you'll likely receive a skin biopsy.

Biopsy

If your doctor thinks the lesion looks suspicious (not normal), then a skin biopsy is needed. This can be done many ways. Your doctor will choose the type of biopsy based on the size of the lesion, where it is on your body, and other factors. The goal of a biopsy is to remove as much of the lesion as possible for the most accurate diagnosis.

Skin biopsies are done using a local anesthetic (numbing medicine), which is injected into the area with a very small needle. You'll likely feel a small prick and a little stinging as the medicine is injected, but you shouldn't feel any pain during the biopsy.

The doctor will remove part or all of the lesion and send it to a lab to be looked at under a microscope by a pathologist or dermatopathologist (an expert in diagnosing skin diseases). They'll note the overall appearance and size, shape, and type of the cells.

Biopsies tend to leave some sort of scar. Talk to your doctor about the type of biopsy and the risk of scarring before you have it.

The following are the most common biopsies:

- **Skin shave biopsy:** A skin shave biopsy can be done on the skin surface (superficial) or deeper. Superficial shave biopsies are useful for very flat lesions. This type of biopsy removes the top layer of skin (epidermis) and part of the dermis using a tool like a razor.
- **Skin punch biopsy:** During a skin punch biopsy, a small piece of skin and connective tissue are removed using a handheld tool. Stitches are often used to close the opening in the skin.
- **Excision biopsy:** In an excision biopsy, all or part of the lesion is removed. This biopsy can be done in a doctor's office or a hospital. Be sure to ask about how the biopsy incision will be closed, as there are several options.

What's a lesion?

A skin lesion is defined as an area of skin that looks different from the surrounding area.

When it comes to skin cancer, it's also referred to as a tumor. This can include an abnormal spot, lump, bump, ulcer, sore, or colored area of the skin.

Most lesions are harmless, but some may be skin cancer. Talk to your care team about any lesions that have changed in color, texture, or growth.

Skin punch biopsy

A small piece of skin and connective tissue are removed using a handheld tool.



More tests for confirmed SCSC

Once you have the results of the biopsy and it's confirmed to be squamous cell skin cancer (SCSC), your doctor may want you to have a complete skin exam. They may also want to examine lymph nodes near the lesion to check their size. Finally, they may order imaging tests.

Skin exam

Your skin not only protects your body, but it tells the doctor a lot about your health. Expect a head-to-toe skin exam that includes a review of the scalp, face, mouth, eyes and eyelids, ears, neck, trunk, arms, hands, fingers, fingernails, feet, toes, and toenails. Your doctor may use a dermatoscope (see photo) to see spots more clearly.

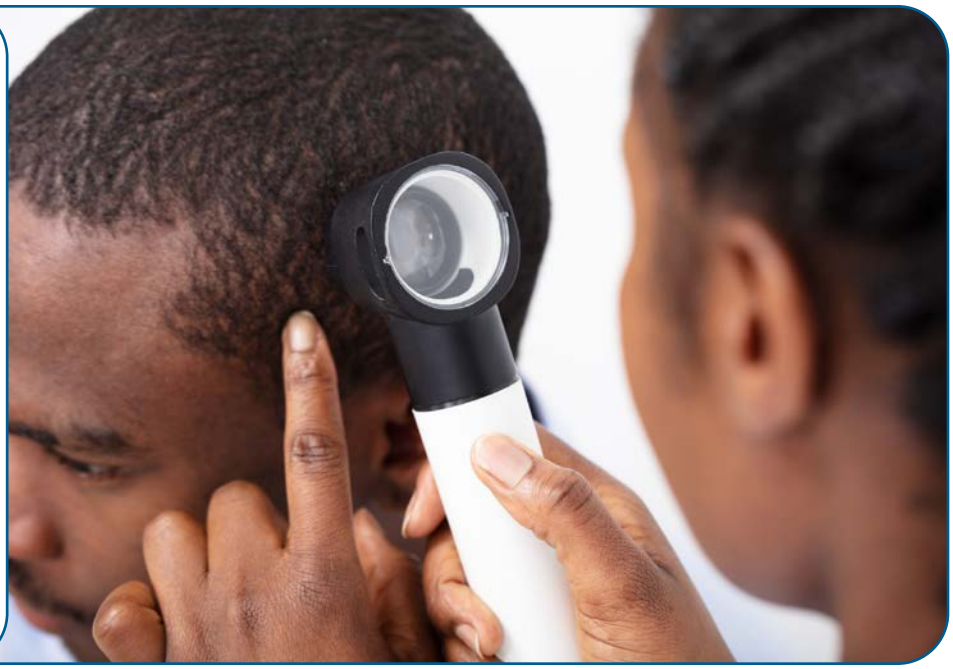
Lymph node exam

At the time of the skin exam, your doctor may want to examine the lymph nodes near the lesion. Lymph nodes are small, bean-shaped, disease-fighting structures of the immune system. They contain lymphocytes (white blood cells) that help the body fight infection and disease. Cancer cells can travel through blood and lymph vessels to form tumors in the lymph nodes and other parts of the body.

So examining the size of the lymph nodes is important. If your doctor determines your lymph nodes are larger than they should be, they may order imaging tests and/or a lymph node biopsy to confirm if cancer has spread there (called nodal disease). This is not common but can happen if SCSC is left untreated.

Skin exam

A health care provider may use a dermatoscope (a special magnifying lens and light source held near the skin) to see spots on the skin more clearly and in more detail.



Imaging tests

Your doctor may also use imaging tests to see if you have cancer beyond the SCSC lesion, such as in bones, nerves, or surrounding deep soft tissue. You may have an ultrasound, a computed tomography (CT) scan, or magnetic resonance imaging (MRI). A positron emission tomography (PET) scan is usually not used unless your care team feels the SCSC might be advanced and wants to confirm if it's spread to the lymph nodes or further away.

If you're very nervous about your scan, make sure your doctor knows. Some people benefit from anxiety medicine prescribed by their doctor to tolerate the scan better.

Ultrasound

An ultrasound uses high-energy sound waves to form pictures of the inside of the body. Ultrasound is painless and does not use x-rays.

CT scan

A computed tomography (CT or CAT) scan takes pictures from different angles of the same body part by a computerized x-ray machine. The pictures are then merged to form a 3D image.

MRI

Magnetic resonance imaging (MRI) is when strong magnets and radio waves take digital pictures of the inside of the body. An MRI doesn't use x-rays.

For both a CT scan and an MRI, contrast dye, a liquid injected into a vein to help your tissues and organs show up more clearly in the picture, may be used.

PET

A positron emission tomography (PET) scan can look at how your cells are behaving to help detect cancer. One type of PET scan commonly used with skin cancer that appears advanced is called FDG-PET. It uses a radioactive drug called a tracer. The tracer is injected into a vein (through an IV using a needle), usually on the inside of your elbow. The tracer then moves through your body and collects in organs and tissues. If there's cancer, the tracer will attach to cancerous substances that may light up as bright spots. But not all bright spots are cancer. When a PET scan is combined with CT, it's called a PET/CT scan.

Diagnosis

When all the recommended information is gathered after biopsy and imaging (if needed), your doctor will consider several features of the cancer and do what's called a risk assessment. This assessment determines if SCSC is local (local SCSC is assigned 1 of 5 risk levels) or advanced.

Local SCSC is cancer that hasn't spread from where it started. This is the most common type of SCSC and is often curable. But local SCSC is classified based on its risk of spreading or recurrence (returning)—the deeper the tumor has invaded into the skin, the higher the risk of the cancer returning after treatment. Each SCSC risk level is based on the highest risk factor found.

Advanced SCSC is cancer that has spread from the lesion (tumor). Both local and advanced SCSC are explained ahead. For more on how they're treated, read the treatment-specific chapters (Chapter 4 and Chapter 5).

Local SCSC

Local SCSC has 5 risk levels:

- Precancer and very early (in situ) cancer
- Low risk
- High risk
- Very high risk (early)
- Very high risk (advanced)

Precancer and very early (in situ) SCSC

This group includes actinic keratoses (precancer) and very early cancer (in situ or stage 0), also called Bowen's disease. Actinic keratoses can appear as rough or scaly spots, bumps, or patches over larger areas of the skin. Bowen's disease can appear as a patch of dry, red, scaly skin. Both actinic keratoses and Bowen's disease can be cured with treatment. But if they don't get treated, they have an increased chance of becoming SCSC.

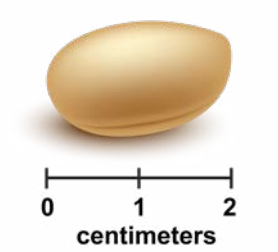
Low risk

Low-risk squamous cell skin cancer means the cancer has a low risk of coming back (recurrence). These lesions are defined by the following features:

- Found on the trunk, arms, or legs and less than 2 centimeters (cm) wide.
- Clear, well-defined edge (border).
- Cell appearance under microscope is normal (referred to as well or moderately differentiated).
- Thickness less than 2 millimeters (mm) and has not spread into layers of skin, fat, or nerves.
- Has not occurred before.
- The person's immune system is not weakened (immunosuppressed), meaning they haven't had organ transplants and don't take certain medications or have certain health conditions.

"Knowing there is treatment available gave me hope at diagnosis and for the future. "

2 centimeters is about the size of a peanut without its shell.



High risk

High-risk SCSC means the cancer has a higher chance of recurring after treatment. High-risk SCSC is defined by the following features:

- Found on the trunk, arms, or legs and between 2 cm and 4 cm wide.
- Any size found on the face (including eyelids, nose, and lips), head (including ears), neck, hands, shins (pretibia), feet, and sometimes the anus or genital area.
- Poorly defined border (edge).
- Thickness between 2 mm and 6 mm and hasn't spread beyond layers of skin, fat, or nerves.
- Could be in a chronic scar, inflammation like a wound (known as Marjolin's ulcer), or an area that's had radiation therapy. SCSC that starts in damaged, inflamed, or scarred skin is difficult to treat and more likely to come back after treatment.

Other high-risk features

- Fast growing.
- Found to be a more aggressive cancer subtype under the microscope.
- The person may have a weakened (immunosuppressed) immune system, meaning they have had organ transplants, take certain medications, or have certain health conditions.
- Has come back after treatment (recurrence).
- May involve neurological symptoms like numbness, pain, muscle weakness, or vision problems.

Very high risk

Very high-risk SCSC has a higher risk of local recurrence and of metastasis (spread to distant organs) and is defined by the following features:

- Any lesion more than 4 cm wide.
- Cell appearance under microscope is very unusual (poorly differentiated).
- Found to be a more aggressive subtype under the microscope.
- Thickness greater than 6 mm or spread beyond layers of skin, fat, or nerves.
- Tumor cells in the nerves.
- Cancer in lymph or blood vessels.

For more information, see *Chapter 4: Treating local SCSC.*

Advanced SCSC

Squamous cell skin cancer that has significantly spread from the original site is called advanced. It's not common for SCSC to become advanced, but it can happen if it's left untreated.

Advanced SCSC can be discovered in the following ways:

- After skin biopsy and imaging tests.
- After surgery to remove a lesion, and tests confirm it.
- Lymph nodes are enlarged, and a lymph node biopsy confirms that cancer is there.
- It causes symptoms like pain or itching.
- It shows signs like a sore that doesn't heal over several weeks.

Once it's diagnosed, advanced SCSC is categorized into 4 types:

- Locally advanced
- Satellitosis (nearby tiny tumors) or in-transit metastases (tiny tumors traveling in the lymph vessels)
- Nodal disease (cancer in lymph nodes)
- Metastatic (distant spread)

Locally advanced

This type of SCSC is either a primary (first occurrence) lesion or a recurrent lesion that's grown large or deep into the surrounding tissues, muscles, or nerves. However, it hasn't spread to distant parts of the body.

Satellitosis or in-transit metastases

Satellitosis is when tiny satellite tumors develop in the skin or fat layers within 2 cm of the primary tumor. In-transit metastases are when small, separate pieces of cancer break off and start to travel away from the original lesion through the lymph or blood vessels.

Nodal disease

Nodal disease is when the cancer spreads from the original lesion and is found in one or more regional (nearby) lymph nodes.

Metastatic

This is when SCSC spreads (metastasizes) from the original lesion to distant tissues and organs. SCSC can metastasize and cause death, but it's rare for that to happen.

For more information, see *Chapter 5: Treating advanced SCSC.*

Squamous cell skin cancer

- A common type of skin cancer
- Occurs more often in people with lighter skin
- Often found on areas of the body exposed to sun, especially the head and neck
- Can spread and grow in the area where it first forms
- Rarely spreads to distant areas of the body
- If not treated, can cause disfigurement and can metastasize
- Most people can be cured by completely removing the SCSC

Key points

- Testing for squamous cell skin cancer (SCSC) could include a full health history, an examination of any lesions, and a skin biopsy to remove a sample and test it for cancer.
- Key features of the cancer will be considered to determine if SCSC is low, high, or very high risk.
- The risk level or category for skin cancer is based on the highest risk factor found.
- Local SCSC is cancer that hasn't spread to distant organs. This type is most common and often curable.
- Advanced SCSC is cancer that has significantly spread from the lesion.
- If your doctor determines your lymph nodes are larger than they should be, cancer may have spread there. This is not common.
- Advanced SCSC is rare, but it can happen if left untreated.

Questions to ask

- What tests will I have?
- Do the tests have any risks?
- Where do I go for testing, and about how long will it take?
- Is there an online portal with my test results?
- What does it mean if I have advanced squamous cell skin cancer?

What's next

Now that you've learned about how squamous cell skin cancer is tested and diagnosed, the next chapter gives an overview of the variety of treatments available for SCSC. For more detailed information, be sure to read the treatment-specific chapters: *Chapter 4: Treating local SCSC* or *Chapter 5: Treating advanced SCSC.*

3
Types of treatment

19 Care team

20 Superficial treatments

23 Surgery

26 Radiation therapy

27 Systemic therapy

28 Clinical trials

30 Key points

30 Questions to ask

This chapter is an overview of the types of treatment for squamous cell skin cancer and what to expect. Some type of surgery is typically done to remove the skin cancer. Keep in mind that not everyone will receive the same treatment.

Care team

After being diagnosed with squamous cell skin cancer (SCSC), knowing what to do next can be confusing. Aside from your dermatologist, there may be others involved in your cancer care.

Some members of your care team will be with you throughout your treatment, while others will only be there for parts of it. Get to know your care team and let them get to know you.

You know your body better than anyone. Help team members understand:

- How you feel
- What you need
- What's working and what isn't
- Your goals for treatment

Treatment options for squamous cell skin cancer aim to remove the cancer completely. These include surgery, superficial treatments, topical treatments, radiation therapy, and sometimes systemic treatment (medicine that treats the whole body). See **Guide 2.** Treatment received through a clinical trial may also be an option. But the most common treatment is surgery to remove the cancer and some healthy tissue around it.

It's important to keep in mind that all treatments listed in this patient guide are recommended and appropriate. When helpful, NCCN experts also assign a level of preference to their recommendations for systemic therapies:

- **Preferred therapies** have the most evidence they may work better and be safer than other therapies.
- **Other recommended therapies** can provide effective results but may have less evidence, more side effects, or may not work quite as well as preferred therapies.
- **Therapies used in certain cases** work best for individuals with specific cancer features or health circumstances.

Guide 2
Common treatments for SCSC

Superficial treatments
Surgery
Topical treatments
Radiation therapy
Systemic therapy
Clinical trials

Superficial treatments

Treatments that affect only the top layer of the skin are called superficial treatments.

They may be used to treat the earliest form of squamous cell skin cancer, called very early SCSC or Bowen's disease. They're also used for actinic keratoses (precancerous lesions).

Cryotherapy

Cryotherapy (also called cryosurgery) freezes and destroys precancerous and cancerous cells using a very cold liquid sprayed on the area. Liquid nitrogen is often used. Cryotherapy can cause a burning sensation during treatment. Sometimes a blister will form, but usually a scab develops and heals over 2 to 3 weeks. Skin darkening or lightening can happen during healing.

Photodynamic therapy

In photodynamic therapy (PDT), a light-sensitive drug is applied to the cancerous area. When exposed to light (either red or blue medical-grade light in the doctor's office, or shaded outdoor light), the drug becomes active and kills precancer and early cancer cells.

Common side effects of PDT include itching or burning when the drug is applied, pain during the light exposure, and itching and redness for a few days after treatment.

Topical therapies

Topical therapies are prescription creams applied to the skin. They're used to treat very early SCSC and actinic keratoses.

5-fluorouracil (Carac, Efudex, Fluoroplex) is also called 5-FU. This is chemotherapy applied directly to the skin, unlike most chemotherapy, which is systemic (used throughout the body).

Cryotherapy

Cryotherapy freezes and destroys cancer cells using a very cold liquid or tool.



A cream called calcipotriene (Sorilux, Dovonex) is often used with 5-fluorouracil to treat actinic keratosis. Calcipotriene is a form of vitamin D that activates the skin's immune system.

Imiquimod (Aldara) belongs to a group of drugs known as immune response modifiers. This cream can help fight abnormal skin growths by activating the immune system to damage abnormal skin cells.

Tirbanibulin (Klisyri) is another topical therapy used to treat actinic keratosis. Tirbanibulin is a type of medication called a microtubule inhibitor. It works by killing fast-growing cells, such as the abnormal cells that cause actinic keratoses. It's applied to the face or scalp once a day for 5 days in a row using a single-dose packet with each application.

Hyperkeratosis, thickening of the outer layer of skin, can be a characteristic of actinic keratosis. This thick top layer needs to be softened and broken down before treatment. One or more of the following may be used before treatment with the therapies described above.

- Topical tazarotene (a retinoid product related to vitamin A)
- Curettage (scraping away skin with a spoon-shaped tool)
- Topical keratolytics (also called topical urea, lactic acid, or salicylic acid)

Other therapies sometimes used for actinic keratoses include topical diclofenac; chemical peels (trichloroacetic acid); and resurfacing techniques, such as laser treatments or dermabrasion.

Side effects of topical therapies for SCSC include burning, redness, itching, and pain in the treated area. Sun-damaged skin may also need to be re-treated with topical therapies from time to time.

Photodynamic therapy

A drug applied to the skin becomes active and kills cancer cells when exposed to light.





Your care team

With squamous cell skin cancer, you may only need to see your dermatologist for treatment. But depending on your diagnosis, your treatment team could include the following specialists:

Mohs surgeons are board-certified dermatologists with extra training in Mohs surgery.

Surgical oncologists are doctors trained to diagnose and surgically treat and remove cancerous tumors.

Medical oncologists are doctors who specialize in prescribing cancer drugs. They are trained to diagnose and treat cancer using special medicines that may be taken by mouth or given through a vein.

Radiation oncologists are doctors trained to use different types of radiation to destroy cancerous cells while keeping other cells healthy.

Pathologists are doctors trained to study tissue and cells removed during a biopsy under a microscope to determine the risk status of a lesion.

Plastic surgeons are doctors who reconstruct, restore, and repair body parts. They may be needed to close a wound after surgery, especially if it involves deeper tissue.

Curettage and electrodesiccation

Curettage and electrodesiccation (C&E) is a procedure used to remove shallow (superficial) skin cancers and precancers. During this procedure, your doctor will inject a local anesthetic into the affected area to numb it, so you won't feel pain. Then the lesion will be removed by scraping it with a special tool that has a sharp looped edge on one side (a curette). Once the affected area is removed, the opening will be cauterized (burned) with electrical currents (known as electrodesiccation) to control bleeding and destroy any remaining lesion.

C&E may be repeated if the growth is cancerous. This treatment can be an option for people who cannot undergo more invasive surgeries.

C&E can cause side effects like pain, swelling, crusting or bleeding, and scarring. It's generally only used for low-risk SCSC because the edges of the tissue that are removed are not routinely looked at under the microscope to confirm complete removal.

Surgery

Different types of surgery can be used to treat squamous cell skin cancer. Most surgical procedures involve a form of excision, which means cutting out the tumor along with a small margin of normal skin.

PDEMA

A peripheral and deep en face margin assessment (PDEMA) refers to a technique that allows your doctor to view a high-quality image of the entire marginal surface of removed tissues. This may also be called a complete margin assessment.

All forms of PDEMA allow for complete testing of the edges of any removed tissue.

Mohs surgery

The most common form of PDEMA is Mohs micrographic surgery. It should be performed by surgeons who have special training and experience in the procedure.

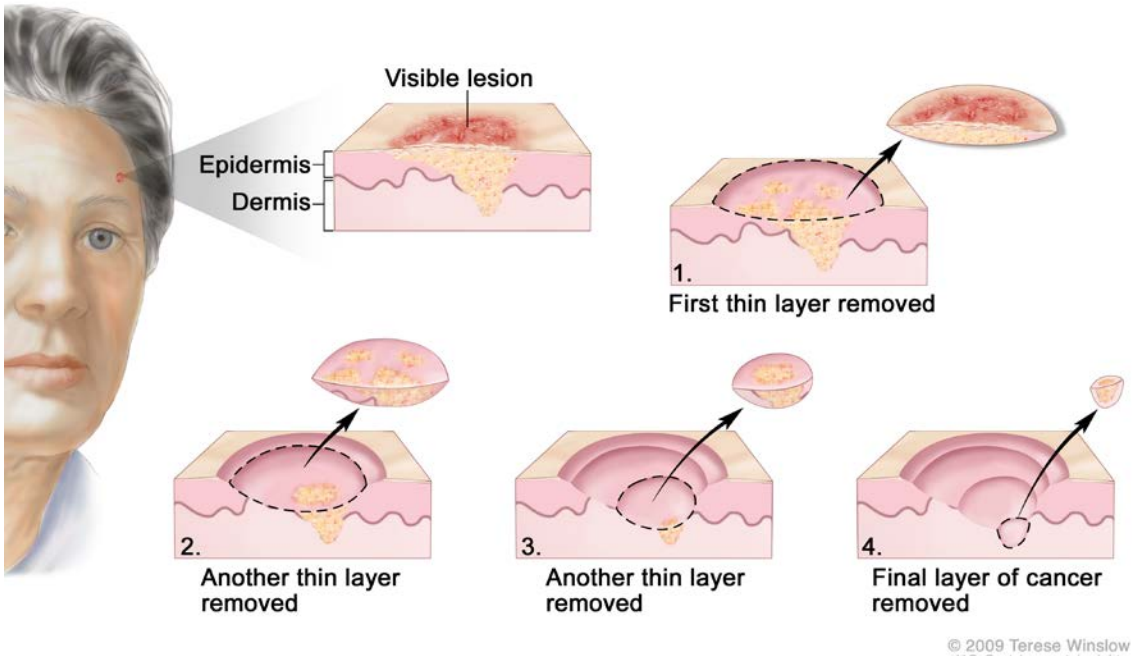
If you have Mohs surgery, you'll remain awake.

The surgery involves many stages:

- Your doctor will mark the area to be removed (including the tumor).
- They will then numb the area with a local anesthetic and use a scalpel to remove a thin layer of the tumor.
- The tissue sample is evaluated at an on-site lab while you wait.

Mohs surgery

Mohs surgery is very effective for treating squamous cell skin cancer. The surgeon removes thin layers of skin—one at a time—and checks each layer for cancer until all the cancer cells are gone.



If there are other areas of concern around the edges or base of the tissue sample, you'll go back to the operating space for another round of tissue removal. You'll continue this process until all the affected area has been removed.

Once no remaining cancer is found, your doctor will decide the best option to close the opening. In some cases, the surgical opening can heal on its own. But most of the time, stitches are used.

Mohs surgery is generally considered safe and carries a low risk of complications. But there are some potential side effects, including bleeding and bruising, infection, pain, numbness, swelling, and scarring.

Standard surgical excision

Standard surgical excision is another option for treating squamous cell skin cancer. A surgical excision means cutting out the cancer along with some normal-looking tissue around it (surgical margin) to make sure all the cancer cells are removed. A local anesthetic is used to numb the area before surgery to minimize pain. If the skin cancer spot is large, additional anesthesia may be needed. The lesion will be sent to the lab, also referred to as pathology.

There, it will be analyzed for cancer. After surgery, your doctor may close the opening (incision) with stitches. But if the opening is large, you may require a skin graft. A skin graft takes skin from an unaffected area of the body to cover damaged skin. Common side effects of skin grafts include pain, swelling, bleeding, scarring, and infection. Your doctor will explain what part of the body your skin graft will come from, and you may have a choice of locations. Ask your doctor for more information so you're comfortable with the procedure.

Wound healing after surgery

After surgery, there are different ways a wound can heal.

Some wounds heal better without stitches. A wound might be left open (rather than being stitched together) and left to heal by itself, filling in and closing up naturally. This is called **secondary intention healing**. It could mean you will need regular dressings to the area for up to 6 weeks, but the full time to heal depends on the size, depth, and area of the wound.

A **linear closure** is another common form of wound healing. The surgeon will cut a small amount of extra skin to change the shape of the wound from a circle to an oval to help the surgeon stitch the wound together in a line.

Other wounds may need **skin grafts** or other types of surgery (such as rearranging skin, known as flapping) to heal well and lessen scarring. A skin graft is a patch of skin that is removed by surgery from one area of the body and transplanted (attached) to another area. This may be done the same day or a few days after a PDEMA/Mohs procedure or standard surgical excision.

After surgery, your skin will continue healing for a period of between 6 to 10 weeks. Scar treatment and aftercare for the skin around the wound will likely be recommended.

Lymph node biopsy and dissection

If lymph nodes near a squamous cell skin cancer tumor are enlarged, your doctor might biopsy them to check for cancer cells. If the lymph node biopsy shows cancer, sometimes nodes will be removed in a more extensive surgery called a lymph node dissection. The nodes are then looked at under a microscope for signs of cancer. This procedure is usually done while you're under general anesthesia (in a deep sleep).

Side effects of lymph node dissection include pain, numbness, limited movement (of arms or legs), and lymphedema. Lymphedema is a serious side effect of lymph node surgery that causes swelling and discomfort, most commonly in the arms or legs.

Sentinel lymph node biopsy

A sentinel lymph node is the first lymph node to which cancer cells are most likely to spread from a primary tumor. The most common sites for lymph nodes are the neck, armpit, and groin areas. Sometimes, there is more than one sentinel lymph node.

A sentinel lymph node biopsy (SLNB) is surgery that removes one or more lymph nodes to examine for any cancer cells. These nodes are checked by a pathologist in a lab. Sometimes you can have an SLNB at the same time as surgery. The results are used to plan treatment.

To locate the sentinel lymph node(s), your surgeon will inject a harmless dye and a low-level radioactive substance into your skin near the tumor, which then drain into the sentinel lymph nodes. Your surgeon will identify the sentinel lymph nodes using a tracking probe and remove them through a small cut in your skin. This procedure is generally done under general anesthesia.

You may have some side effects after an SLNB, including numbness, pain, or bruising. You could also develop a seroma, which is a pocket of clear fluid in the lymph node basin. A seroma usually goes away on its own, but sometimes it needs to be drained with a needle.

Get to know your care team

Keep the names and contact information for each member of your care team on hand, so you know whom to contact with questions or concerns.



Your doctor or care team should discuss with you all the possible risks and benefits of this procedure.

Radiation therapy

Radiation therapy (RT) is a type of cancer treatment that uses beams of intense energy—from electrons (beams), photons (high-energy x-rays), or protons (charged particles)—to kill cancer cells. Radiation therapy usually involves daily treatments over several weeks. These treatments should be given by a practicing radiation oncologist (a doctor who is an expert in radiation treatment). Shorter treatment options are available for smaller lesions and can be discussed with a radiation oncologist.

Types of radiation therapy

There are 2 general types of radiation therapy that can be used to treat SCSC: external beam radiation therapy (EBRT) and brachytherapy.

In EBRT, a beam of radiation is directed at the tumor from a machine. The 2 most common types of external beam radiation for SCSC use electrons and photons. Electrons are used to treat superficial tumors. Photons are used to treat deeper, more invasive tumors.

In brachytherapy, a radiation source is placed close to or in direct contact with the tumor for a short period of time.

When you might have radiation therapy

Radiation therapy is an option for some people after cancer resection (surgery), or for those who cannot have or choose not to have surgery. Radiation therapy can be very effective for small tumors and for those in areas like the head and neck.

Radiation therapy should not be used in people who have certain genetic conditions that put them at higher risk of skin cancer caused by radiation, such as basal cell nevus syndrome or xeroderma pigmentosum. It also may not be appropriate for some people who have connective tissue diseases, such as lupus or scleroderma.

The same area generally should not be treated with radiation more than once. When SCSC grows in a radiated area, it usually needs to be removed with surgery. However, the area often doesn't heal as well because the tissues were weakened by the radiation. This is especially true for SCSC on the scalp.

A radiation oncologist should help you determine whether this treatment is appropriate for you.

Adjuvant therapy refers to therapy given after surgery to lower the risk that cancer will come back. Radiation is sometimes used as adjuvant therapy after surgery to kill any remaining cancer cells, or to help prevent recurrence for people with high-risk tumors.

Side effects of radiation therapy

The most common short-term side effects of radiation are skin redness, itching, mild discomfort, and feeling tired. These side effects are worse at the end of the radiation

course and take several weeks to go away. Your doctor may recommend using a radiation burn cream and/or other scar treatments for the skin side effects.

Potential long-term side effects of radiation include hardening of the skin and soft tissue in the treatment area, mild change in skin color (lightening or darkening), and spider veins. More serious long-term side effects include non-healing ulcers and cataracts (for SCSC in the eye area). If you're treated with radiation, you could develop a second type of cancer in the treated area, but this is very rare. It's more common in young people many years (decades) later.

Systemic therapy

Systemic therapy is treatment with medicine(s) that travel in the bloodstream to reach cells throughout the body. Systemic therapies can affect both cancer cells and normal cells, and they can have side effects. They're given intravenously (through the veins) or taken by mouth as a pill. Categories of systemic therapy are described next.

Immunotherapy

Immunotherapy stimulates the activity of the immune system, which can improve the body's ability to find and destroy cancer cells.

Immunotherapies used to treat SCSC and other cancers are known as programmed cell death protein 1 (PD-1) and programmed death ligand 1 (PD-L1) inhibitors. They are a type of immune checkpoint inhibitor. Cemiplimab (Libtayo) and pembrolizumab (Keytruda) are PD-1 inhibitors, and cosibelimab (Unloxycyt) is a PD-L1 inhibitor. These immunotherapies are approved by the U.S. FDA to treat squamous cell skin cancer and other cancers.

Chemotherapy

Chemotherapy is a type of systemic therapy that uses drugs to kill fast-growing cancer

Know your options

It is always important to discuss your treatment options and any preferences or concerns you might have with your doctor and care team.



cells. Some chemotherapy medicines contain the metal platinum. Cisplatin and carboplatin are platinum chemotherapies used to treat squamous cell skin cancer and other cancers. They may be given in combination with other chemotherapy drugs.

Targeted therapy

Targeted therapies are medicines that can target and attack specific types of receptors on cancer cells. The targeted therapies used to treat squamous cell skin cancer are known as epidermal growth factor receptor (EGFR) inhibitors. EGFR is a protein found on the surface of cells that causes them to divide. Inhibiting (blocking) EGFR may keep cancer cells from growing. Cetuximab (Erbitux) is an EGFR inhibitor used to treat SCSC and other cancers.

Side effects of systemic therapy

If you're prescribed systemic therapy, you may experience side effects. The side effects of systemic therapy vary greatly depending on the medicine(s) used. Most side effects start when treatment starts and stop when it's over, but some can occur months or even years later. Ask your care team about specific side effects with your type of systemic therapy. Common side effects include:

- Tiredness and muscle fatigue
- Nausea/vomiting
- Loss of appetite
- Head and body aches
- Diarrhea or constipation
- Hair loss

More severe side effects include lung and breathing problems, damage to organs, high blood pressure, or abnormal bleeding. Longer-term side effects of systemic therapy can include other cancers, heart disease, and infertility.

Clinical trials

A clinical trial is a type of medical research study. After being developed and tested in a lab, potential new ways of fighting cancer need to be studied in people.

If found to be safe and effective in a clinical trial, a drug, device, or treatment approach may be approved by the U.S. FDA.

Everyone with cancer should carefully consider all of the treatment options available for their cancer type, including standard treatments and clinical trials. Talk to your doctor about whether a clinical trial may make sense for you.

Phases

Most cancer clinical trials focus on treatment and are done in phases.

- **Phase 1** trials study the safety and side effects of an investigational drug or treatment approach.
- **Phase 2** trials study how well the drug or approach works against a specific type of cancer.
- **Phase 3** trials test the drug or approach against a standard treatment. If the results are good, it may be approved by the FDA.
- **Phase 4** trials study the safety and benefit of an FDA-approved treatment.

Who can enroll?

It depends on the clinical trial's rules, called eligibility criteria. The rules may be about age, cancer type and stage, treatment history, or general health. They ensure that participants are alike in specific ways and that the trial is as safe as possible for the participants.

Informed consent

Clinical trials are managed by a research team. This group of experts will review the study with you in detail, including its purpose and the risks and benefits of joining. All of this information is also provided in an informed consent form. Read the form carefully and ask questions before signing it. Take time to discuss it with people you trust. Keep in mind that you can leave and seek treatment outside of the clinical trial at any time.

Will I get a placebo?

Placebos (inactive versions of real medicines) are almost never used alone in cancer clinical trials. It's common to receive either a placebo with a standard treatment, or a new drug with a standard treatment. You'll be informed, verbally and in writing, if a placebo is part of a clinical trial before you enroll.

Are clinical trials free?

There is no fee to enroll in a clinical trial. The study sponsor pays for research-related costs, including the study drug. But you may need to pay for other services, like transportation or childcare, due to extra appointments. During the trial, you'll continue to receive standard cancer care. This care is often covered by insurance.



Finding a clinical trial

In the United States

NCCN Cancer Centers
NCCN.org/cancercenters

The National Cancer Institute (NCI)
cancer.gov/about-cancer/treatment/clinical-trials/search

Worldwide

The U.S. National Library of Medicine (NLM)
clinicaltrials.gov

Need help finding a clinical trial?

NCI's Cancer Information Service (CIS)
1.800.4.CANCER (1.800.422.6237)
cancer.gov/contact

Key points

- Superficial treatments are options for actinic keratoses (precancerous lesions) and very early squamous cell skin cancer (SCSC).
- The most common surgeries for SCSC include curettage and electrodesiccation (C&E), peripheral and deep en face margin assessment (PDEMA) and Mohs surgery, and standard surgical excision.
- Radiation therapy (RT) can be used after surgery to destroy remaining cancer cells.
- RT can be used on its own as a treatment option for people who cannot or choose not to have surgery.
- Systemic therapy (for example, chemotherapy, targeted therapy, and immunotherapy) is not commonly used for SCSC, except when it has spread elsewhere in the body.
- Systemic therapy may be an option if surgery and radiation therapy are not possible or were unsuccessful.
- Enrolling in a clinical trial can be another treatment option. Talk with your care team about it.

Questions to ask

- How soon do I need to be treated?
- Where will I receive treatment?
- What are the short-term and long-term side effects of treatment?
- Should I be aware of any complications?
- What are the expected outcomes of my treatment?

What's next

This chapter explained the many types of treatment available for squamous cell skin cancer. The next chapter details treatment based on your risk of the cancer's recurrence (returning). You'll learn what it means if you have low-risk, high-risk, very high-risk, or advanced squamous cell skin cancer.

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Treating local SCSC

32 Precancer and very early SCSC (in situ)

33 Low risk

35 High risk or very high risk (early)

37 Very high risk (advanced)

38 Follow-up care

39 Key points

39 Questions to ask

Squamous cell skin cancer (SCSC) that hasn't spread to other areas of the body is called local. Most local SCSC is treated with surgery, and the goal is to remove all the cancer. This chapter will explain how it's treated according to risk.

Local squamous cell skin cancer (SCSC) is very treatable (see **Guide 3**) and almost always curable because it's caught before spreading. It's categorized and treated by risk of the cancer returning (recurrence). See *Chapter 2: Testing and diagnosing SCSC* for how that happens.

The more the lesion (tumor) has invaded the layers of the skin, the higher the risk of the cancer returning after treatment.

There are 5 risk groups of local SCSC, and treatment is unique to each group:

- Precancer and very early cancer
- Low risk
- High risk
- Very high risk (early)
- Very high risk (advanced)

Precancer and very early SCSC (in situ)

This group includes actinic keratoses (AKs), which are precancer, and very early cancer, which is called superficial (in situ) SCSC or Bowen's disease.

Actinic keratoses can appear as flat or slightly raised, scaly, rough patches or bumps in an area of the skin that feels like sandpaper. They can be painless but can sometimes be itchy or tender. AKs can be red, white, tan, pink, or skin colored. They're usually located in an area that's sun exposed.

AKs are typically treated when they're first discovered. But they may be biopsied if they have an unusual appearance or don't respond to treatment.

Very early SCSC (in situ) can be a small, red-brown, scaly, flat patch that may be crusted and look like psoriasis.

Both precancer and very early cancer don't require surgery and instead are treated

Guide 3
Treatment options for local SCSC

Topical chemotherapy or immunotherapy
Destructive therapies
Curettage and electrodesiccation (C&E)
Shave removal
Mohs surgery or another form of PDEMA
Standard surgical excision
Radiation therapy
Neoadjuvant (before surgery) cemiplimab-rwlac

topically (on the surface of the skin). The most common treatments are:

- Topical chemotherapy or immunotherapy
- Destructive therapies like laser treatments, chemical peels, or cryotherapy

Low risk

For low-risk SCSC, various forms of surgery are the preferred treatment. Radiation therapy may only be needed in some cases. Treatment options include:

- Curettage and electrodesiccation (C&E)
- Shave removal
- Standard surgical excision
- Mohs surgery or another form of peripheral and deep en face margin assessment (PDEMA)
- Consultation with a radiation oncologist

Treatment

Curettage and electrodesiccation

Curettage and electrodesiccation (C&E) are recommended treatment options for low-risk SCSC. C&E is usually considered for early, small SCSC on the surface of the skin. But if the tumor is found to be deeper than expected during the procedure, a standard surgical or shave removal should be done. These can remove deeper areas of cancerous tissue.

Shave removal

In this procedure, your doctor will use a sharp blade to remove a shallow lesion, which is at or just below the level of the surrounding skin. A shave removal does not require stitches.

But if the lesion is deeper than expected, a standard surgical excision may be needed to remove the remaining cancerous tissue.

Standard surgical excision

Standard surgical excision is a recommended treatment option for low-risk SCSC. If testing after surgery finds cancer cells (positive for cancer) in the surrounding tissue removed with the tumor, more treatment is needed. Treatment includes the following options:

- Mohs surgery or another form of PDEMA
- Another surgery
- Radiation therapy for people who aren't candidates for surgery

After these treatments or if the margins are negative (no cancer found) following standard surgery, you'll move to follow-up care. See "Follow-up care."

Mohs surgery or PDEMA

Mohs surgery or another form of PDEMA is the preferred treatment for low-risk SCSC. Preferred treatments are those that have the most evidence they may work better and be safer than other treatments.

Mohs surgery removes tumors from the skin, layer by layer. If there are additional areas of concern around the edges or base of the tissue sample, you'll have another round of tissue removal. You'll continue this process until all the affected tissue has been removed and surgical margins are clear (no cancer found). At that point, you'll move to follow-up care. See "Follow-up care."

Radiation therapy

Although surgery is the most common treatment for low-risk SCSC, you may have radiation therapy if the lesion is in a hard-to-remove area, or if you aren't a candidate (see sidebar) for surgery or don't want it. You and your doctor will likely consult with a radiation oncologist to discuss using radiation therapy to treat your lesion.

After radiation therapy, you'll move to follow-up care. See "Follow-up care."

What is PDEMA?

Peripheral and deep en face margin assessment (PDEMA) is a technique that lets your doctor see the entire edge of removed tissue clearly.

This is also called a complete margin assessment. Mohs surgery is one type of PDEMA.

Sun exposure

Most squamous cell skin cancers are caused by spending too much time in the sun over a long period of time, frequent tanning, and getting sunburns.



High risk or very high risk (early)

If SCSC is categorized as high risk or very high risk (early), it means that surgery or radiation therapy has a good chance of a cure. If you're diagnosed with this risk level, experts recommend treatment at a specialized cancer center and that you meet with your care team to discuss treatment.

At this point, a sentinel lymph node biopsy (SLNB) might be considered if you have recurrent SCSC or if the lesion has multiple high-risk features (signs that the cancer could be more severe or harder to treat).

An SLNB is used to identify the first (sentinel) lymph nodes where cancer might have spread. The surgeon injects a harmless dye and a low-level radioactive solution to find the sentinel nodes.

The nodes are then removed and tested for signs of cancer.

The options for surgery include:

- Mohs surgery or another form of PDEMA (preferred for very high-risk [early] SCSC)
- Standard surgical excision

If you're not a candidate for surgery, radiation therapy might be an option. It's recommended to speak with a radiation oncologist to help make that decision.



What makes someone not eligible for surgery?

Some people with squamous cell skin cancer are not candidates for surgery. What this means is that surgery won't be recommended as a treatment. Some of the reasons surgery is not recommended could include one or more of the following:

- **Difficult location:** If the lesion is in a spot that's tricky or risky for surgery, like near the eyes, ears, or nose
- **Large or deep lesions:** If the lesion is very large or has grown deep into the skin, making it hard to remove completely
- **Health concerns:** If a person has other health issues or is older, making surgery risky
- **Recurrence:** If the cancer has come back or hasn't responded well to surgery in the past
- **Nerve invasion:** If the cancer has spread along the nerves, making it harder to remove with surgery
- **Metastasis:** If the cancer has spread to distant organs

Treatment

Mohs surgery or another form of PDEMA is the preferred treatment option for high-risk and very high-risk (early) cancer. But standard surgical excision with wider margins is also an option.

Either way, if testing finds that cancer is still in the margins (positive margins) after the surgery, you'll have the following treatment options:

- Another surgery
- Radiation therapy

If the treatment eliminates the cancer (negative surgical margins), then you'll move to follow-up care. See "Follow-up care."

If the treatment got rid of the cancer (negative margins) but concerning features, like large nerve involvement, remain, it means it's more aggressive. Because of that, you might receive adjuvant (after surgery) radiation therapy. After radiation therapy, you'll move to follow-up care. See "Follow-up care."

If neither surgery nor radiation therapy removes the cancer completely, then it will be diagnosed as locally advanced SCSC, and more treatment is needed. See the next chapter, "Treating advanced SCSC," for more information.



Let us know what you think!

Please take a moment to complete an online survey about the NCCN Guidelines for Patients.
NCCN.org/patients/response

Very high risk (advanced)

When SCSC is very high risk (advanced), it means there are high-risk features, like a much greater chance of local recurrence, involvement of the lymph nodes, or in-transit metastases (tiny traveling tumors). If you're diagnosed at this risk level, experts recommend meeting with a care team at a specialized cancer center.

Once you meet, your care team might recommend the following as part of your treatment planning:

- **Radiological staging:** This is staging using MRI with or without contrast or CT with contrast and/or ultrasound. It's also any imaging done to identify abnormal lymph nodes. If it's discovered you have abnormal lymph nodes, see *Chapter 5: Treating advanced SCSC*.
- **SLNB:** If the cancer is recurrent or has multiple high-risk features, your care team might suggest an SLNB to determine if the cancer has spread to the lymph nodes.
- **Neoadjuvant (before surgery) therapy with cemiplimab-rwlc:** You may have this therapy if you have a rapidly growing tumor, you have in-transit metastases, it's not completely clear your cancer can be fully removed (called borderline resectable), surgery may not be able to cure it, or surgery may affect your ability to function normally.

Treatment

Once the planning stage is done, you'll have the following treatment options:

- Mohs surgery or another form of PDEMA (preferred for very high-risk [advanced] SCSC)
- Standard surgical excision

If you're not a candidate for surgery, radiation therapy (RT) might be an option. It's recommended to speak with a radiation oncologist to help make that decision.

Negative margins

If the surgery removed the cancer and the margins are negative (no cancer found), but the nerves are involved or there's other high-risk features (signs that the cancer could be more severe or harder to treat), then you might receive adjuvant (after surgery) radiation therapy.

If your cancer involves the nerves or has other extremely high-risk features, you might also receive the immunotherapy (immune checkpoint inhibitor) cemiplimab-rwlc after the adjuvant RT. See **Guide 5** in *Chapter 5: Treating advanced SCSC.*

Positive margins

If testing finds that cancer is still in the surgical margins (positive margins) after the surgery, you'll have the following treatment options:

- Another surgery
- Radiation therapy

If your cancer has extremely high-risk features, you might receive the immunotherapy cemiplimab-rwlc after the adjuvant radiation

therapy. See **Guide 5** in *Chapter 5: Treating advanced SCSC.*

Still, if surgery or radiation therapy doesn't remove the cancer completely, then it will be diagnosed as locally advanced SCSC, and more treatment is needed. See the "Locally advanced" section in the next chapter for more information.

Follow-up care

For local SCSC, the first 2 years after treatment is the most important. You will check in with your doctor for physical and skin exams that should occur at least every 3 to 12 months (for people who are low risk) or every 3 to 6 months (for people who are high risk) during this time.

If no further skin cancer develops in the first 2 years, then exams are spaced out to every 6 to 12 months (once or twice a year) for another 3 years. After that, NCCN experts recommend having an exam once a year for the rest of your life.

For very high-risk local SCSC, exams should be done every 3 to 6 months during the first 2 years, then every 6 months for the next 3 years. After that, exams can be spaced out to every 6 to 12 months (once or twice a year) for the rest of your life.

In addition, imaging tests may be used to monitor some people who have local SCSC. For more information on your follow-up exam schedule, see **Guide 8** in *Chapter 6: After treatment and prevention.*



Keep seeking out information and read information again as the diagnosis and treatment process continues."

Key points

- Local squamous cell skin cancer (SCSC) is most often treated with surgery.
- Destructive therapies like laser treatments, chemical peels, or cryotherapy are options for precancerous lesions or very early SCSC.
- Treatment for low-risk SCSC may include shave removal, curettage and electrodesiccation, standard surgical excision, or Mohs surgery or another form of peripheral and deep en face margin assessment (PDEMA).
- For low-risk SCSC non-surgical candidates, treatment with radiation therapy is an option.
- Recommended types of surgery for high-risk or very high-risk (early) SCSC include Mohs surgery/another form of PDEMA, and standard surgical excision.
- If surgery or radiation therapy doesn't cure very high-risk (advanced) SCSC, it's classified as locally advanced SCSC.
- In very high-risk (advanced) SCSC, neoadjuvant (before surgery) immunotherapy is an option.
- Follow-up care is given after the last treatment.

Questions to ask

- Do you do Mohs surgery or PDEMA? If not, will I need to go to a different practice?
- What's the risk of my cancer spreading?
- What's the risk of my skin cancer returning?
- Are additional treatment options appropriate for me, like radiation or immunotherapy?
- What kind of scar can I expect from the procedure? Will I need a plastic surgeon?

What's next?

Now that you've learned how local SCSC is treated, find out what happens next and how you'll be followed by your care team in *Chapter 6: After treatment and prevention*.

5
Treating advanced SCSC

41 Types of advanced SCSC

42 Locally advanced SCSC

43 Nodal disease

46 Satellitosis and in-transit metastasis

47 Metastatic SCSC

48 Recurrence

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50 Key points

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Squamous cell skin cancer (SCSC) that has spread from its original lesion (tumor) is more advanced. It's also considered advanced if the cancer has returned (recurrence) anywhere in the body. This chapter explains more about what advanced SCSC is and how it's treated.

Types of advanced SCSC

There are 4 types of advanced SCSC:

- Locally advanced SCSC
- Satellitosis or in-transit metastasis
- Nodal disease (involving the lymph nodes)
- Metastatic SCSC

Squamous cell skin cancer (SCSC) is not likely to spread unless it goes untreated. An SCSC lesion that has spread to underlying tissues (muscles, bones and nerves), has satellitosis (nearby tiny tumors), is in transit (tiny traveling tumors in lymph vessels), or has spread to nearby lymph nodes or to distant parts of the body (metastasized) is considered advanced. See *Chapter 2: Testing and diagnosing SCSC* for how it's diagnosed.

Treating SCSC that has spread can be challenging, but even advanced SCSC can be successfully treated with various therapies. See **Guide 4.**

Recurrent SCSC, or cancer that has come back after treatment, is also considered advanced. See the end of this chapter for more about treatment in the "Recurrence" section.

Guide 4
Treatment options for advanced SCSC

Mohs surgery or another form of PDEMA
Standard surgical excision
Radiation therapy
Systemic therapy
Clinical trial
Regional therapy (for use in arm or leg)
Palliative radiation therapy
Palliative surgery
Stereotactic body radiotherapy (SBRT)

Locally advanced SCSC

Locally advanced SCSC is either a primary (first-time) lesion or a recurrent (returning) lesion that's grown large or deep into the surrounding tissues, muscles, or nerves but hasn't spread to distant parts of the body. Sometimes surgery and/or radiation therapy is not the first treatment option because it might not cure it, or those treatments could make everyday tasks harder for you.

As a result, experts recommend that you meet with your care team and discuss neoadjuvant therapy (before) surgery and adjuvant therapy (after) surgery. See **Guide 5.**

Treatment

If your care team thinks neoadjuvant therapy is best, you may receive the immunotherapy (an immune checkpoint inhibitor) cemiplimab-rwlc and/or participate in a clinical trial. After that treatment, you may have either Mohs surgery

Guide 5
Possible systemic therapy options when used alone

Preferred treatments	• If radiation therapy or surgery is not an option for locally advanced, recurrent, or metastatic SCSC, then these are options: - Cemiplimab-rwlci - Cosibelimab-ipdl - Pembrolizumab • Clinical trial
Other recommended treatments	• Nivolumab • If SCSC worsened on immune checkpoint inhibitors or you're ineligible for them, options are: - Carboplatin/Paclitaxel - Carboplatin/Paclitaxel and Cetuximab - Targeted therapy medicines (for example, Cetuximab)
Used in some cases	• Cemiplimab-rwlc (for people with solid organ transplant) • Neoadjuvant (before surgery) cemiplimab-rwlc • If SCSC worsened on immune checkpoint inhibitors or you're ineligible for them, options are: - Capecitabine - Cisplatin - Cisplatin/Fluorouracil

(or another form of PDEMA) or standard excision to remove the cancer.

Positive margins

If the margins still have cancer (are positive) after the surgery, then your options are:

- Another surgery
- Radiation therapy with or without systemic therapy
- Systemic therapy if radiation therapy can't cure the SCSC

After these treatments, you'll move to follow-up care. See "Follow-up care."

Negative margins

If the margins are clear (negative) after surgery but the nerves are involved or there's other signs that the cancer could be more severe or harder to treat, then you might receive adjuvant (after surgery) radiation therapy.

When surgery is not an option

If you're not a candidate for surgery because of your health status or surgery may not cure the cancer, you might receive:

- Radiation therapy with or without systemic therapy
- Systemic therapy if radiation therapy isn't likely to cure the SCSC

After these treatments, you'll move to follow-up care. See "Follow-up care."

Nodal disease

When SCSC spreads to the lymph nodes, it's called nodal disease. Nodal disease is more advanced cancer.

It's not common for SCSC to spread to the lymph nodes but when it does, it tends to spread to those closest to the lesion. If the lesion is on the face or head, the most common areas of spread are lymph nodes on the face and neck. If it's on the hands or arms, it could spread to the lymph nodes under the arms. Lesions on the legs and feet tend to spread to the groin (inguinal) area.

Your doctor might have felt swollen or enlarged lymph nodes during your physical exam, or your lymph nodes may have looked abnormal on imaging testing. The next step is a needle biopsy of the lymph node to take a sample to find out if the cancer has spread there. There are 2 main types of biopsies used:

- **Fine-needle aspiration (FNA):** This is most common and involves a thin needle to collect fluid and cells.
- **Core needle biopsy:** This type is used less often and involves a needle with a hollow core that can collect a larger amount of tissue.

No matter what type of biopsy is used, NCCN experts recommend that it be done by a doctor who has expertise in ultrasound-guided biopsy. Core biopsy might be used if a larger sample is needed or if the results of the original biopsy were unclear.

Negative biopsy

If the biopsy result is negative (no cancer found) but there's still suspicion that the lymph nodes are involved, then you may require a re-evaluation. A re-evaluation could include the following:

- Clinical exam
- CT with contrast of nodal basin (nearby area of lymph nodes)
- Repeat FNA biopsy, core biopsy, or possibly an excisional biopsy (removal of an entire lymph node or nodes)

If your lymph nodes are still negative at that point, you'll move to follow-up care. See "Follow-up care."

But if the extra tests find cancer in the lymph nodes, you'll follow the steps in "Positive biopsy."

Positive biopsy

If your lymph node biopsy comes back positive (cancer is found), then you'll have more testing to figure out if the cancer has spread anywhere else and how best to treat it. Depending on the status of the lymph nodes and biopsy results, you could have the following tests:

- CT with contrast of the area of nearby lymph nodes (the nodal basin) to determine the size, number, and location of the nodes with cancer
- Chest/abdomen/pelvis CT with contrast or PET/CT if needed to see if cancer has spread farther than lymph nodes

After the imaging tests, you'll meet with your care team to discuss surgery or if you should enroll in a clinical trial.

Treatment

Surgery is the most common, but often not the only, treatment for SCSC that's spread to the lymph nodes. Surgery involves excision (removal) of the cancerous lesion and a group of nearby lymph nodes (called dissection).

If surgery is an option for you, you might meet with your care team to discuss having neoadjuvant (before surgery) immunotherapy with cemiplimab-rwlc first. Immunotherapy is especially likely if there's a chance your cancer is considered borderline resectable. This means that surgery could be successful in removing the lesion and lymph nodes but it's still unclear, and immunotherapy might help shrink the tumor.

Otherwise, see "Head and neck tumors" and "Arm, leg, and trunk tumors" for what surgery might involve.

But depending on the status of your health, the lesion, or lymph nodes, surgery may not be an option for you. If that's the case, see "If surgery is not an option" ahead for information.

Head and neck tumors

For head and neck tumors, lymph nodes may be removed from one or both sides of the neck. The extent of surgery depends on the number, location, and size of the lymph nodes with cancer. After surgery, radiation therapy is often given to destroy any remaining cancer cells and to decrease the risk of the tumor returning.

If any lymph nodes are found to have grown through the protective outer layer (called extracapsular or extranodal extension), the cancer is considered more advanced.

Less advanced disease

If only 1 lymph node that was 3 centimeters (cm) or smaller and didn't have extranodal extension was removed, your treatment options are:

- Radiation therapy
- Observation, which is careful monitoring by your care team

If 2 or more positive nodes or just 1 node greater than 3 cm with no extranodal extension was removed, then you might just have radiation therapy.

More advanced disease

Systemic therapy is sometimes used in addition to radiation therapy after surgery for more advanced lymph node involvement. More advanced disease with head and neck tumors means that:

- Removed lymph nodes had extranodal extension
- Any lymph nodes with cancer were not fully removed during surgery

In either of these situations, a discussion with your care team is recommended. If systemic therapy is planned, chemotherapy with cisplatin along with radiation is preferred. See **Guide 6.**

After treatment, you'll be observed by your care team. This is called watchful monitoring. After observation, you'll move to follow-up care. See "Follow-up care."

Arm, leg, and trunk tumors

Surgery is the best way to treat tumors that have spread to other areas of the body like the arms, legs, and trunk. Surgery removes the tumor and nearby lymph nodes. Radiation therapy may be given after surgery to destroy leftover cancer cells. This is important if more than 1 lymph node had cancer or if any lymph nodes had extranodal extension (growth

Guide 6
Possible systemic therapy options for use with radiation therapy

Preferred treatments	• Cisplatin • Clinical trial
Other recommended treatments	• Carboplatin • Carboplatin/Paclitaxel • Epidermal growth factor (EFGR) inhibors like Cetuximab
Used in some cases	• Cisplatin/Fluorouracil

outside the protective outer layer). So your treatment options are:

- Surgery to remove the primary tumor and nearby lymph nodes (dissection)
- Radiation therapy if cancer has spread to multiple lymph nodes or there's extranodal extension

After these treatments, you'll move to follow-up care. See "Follow-up care."

If surgery is not an option

You might not be a candidate for surgery if the tumor is considered not removeable (unresectable/inoperable) or if you've had surgery where the tumor was incompletely removed (resected).

If you're not a candidate for surgery, experts recommend you meet with your care team. This team should include a radiation oncologist to consider your treatment options. Treatment could include the following:

- Radiation therapy with or without systemic therapy
- Systemic therapy if radiation isn't likely to destroy the cancer

After these treatments, you'll move to follow-up care. See "Follow-up care."

Satellitosis and in-transit metastasis

Satellitosis is when small tumor bumps form right next to the original main skin cancer (also known as satellite lesions). In-transit metastasis is when tiny bumps or tumors that have broken off from the main skin cancer travel (in transit) in the lymph vessels toward the nearest lymph nodes.

Because these types of SCSC are rare, research on how to treat them is limited. But when they happen, they're currently treated the same way.

If you've been told the cancer has satellitosis and/or in-transit metastasis after the original biopsy, a skin exam, and imaging studies, you'll need extra imaging tests.

To confirm the diagnosis and before treatment, you might receive the following:

- Imaging of the affected area (CT with contrast) to see where the cancer is located
- Chest/abdomen/pelvis CT with contrast or PET/CT as needed to check for distant spread (metastasis)

Treatment

After imaging is done, you'll meet with your care team. They'll decide if the cancer is operable (removeable/resectable), is not operable (not removeable/unresectable), or hasn't been fully removed from a previous surgery (incompletely resected).

Operable

If the SCSC is operable, then you'll have the following treatment options:

- Systemic therapy (neoadjuvant) followed by surgery
- Upfront surgery with possible therapy after surgery (adjuvant)

After these treatments, you'll move to follow-up care. See "Follow-up care."

Not operable

If the cancer isn't removeable or not all cancer has been fully removed, then you'll have the following treatment options:

- Systemic therapy with or without radiation therapy
- Regional chemotherapy used when local satellite/in-transit SCSC is confined to an arm or a leg is called isolated limb infusion/perfusion (ILI/ILP) with melphalan (used in some cases)

ILI/ILP uses high doses of chemotherapy (like melphalan) and treats just the limb that has SCSC. The doctor blocks the blood flow to the limb to confine the high-dose chemotherapy to that area. This procedure should only be done at centers experienced in providing ILI/ILP.

After these treatments, you'll move to follow-up care. See "Follow-up care."

Metastatic SCSC

Cancer cells can spread through blood and lymph vessels to form tumors in other areas of the body. This is called metastasis. Squamous cell skin cancer rarely metastasizes. For this reason, research on the best way to treat metastatic SCSC is limited. A discussion with your care team is recommended to consider all your treatment options. Most treatment options include easing painful or uncomfortable symptoms of metastatic SCSC.

Treatment

For metastatic SCSC, options include:

- Systemic therapy with or without radiation therapy
- Palliative radiation therapy to help ease symptoms
- Surgery to completely remove all SCSC sites, or if not possible, then palliative surgery to help ease symptoms
- Stereotactic body radiotherapy (SBRT), used in some cases

If surgery and/or radiation therapy can't remove metastatic SCSC, systemic therapy is recommended. See **Guide 5.** If you're eligible, immunotherapy is preferred.

Enrolling in a clinical trial for systemic therapy is another option. A clinical trial could involve treatment with chemotherapy, targeted therapy, or immunotherapy.

If you're not eligible for immunotherapy or a clinical trial isn't available, options for systemic therapy include platinum-based chemotherapy and targeted therapy.

Help with symptoms

Radiation therapy and/or surgery may be used to treat distant tumors that are causing pain or other bothersome side effects. This is called palliative radiation or palliative surgery. Palliative care is a type of supportive care (see "Supportive care" sidebar). Stereotactic body radiotherapy (SBRT) is another treatment that can help. It's a highly focused radiation technique that may be used in some cases. It sends larger doses of radiation than standard radiation therapy to small areas to kill cancer cells and is usually given over fewer treatments (typically 3 to 5).

Read more about the types of support you may receive in *NCCN Guidelines for Patients: Palliative Care,* available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Recurrence

Recurrence is the return of squamous cell skin cancer. It's considered advanced SCSC. Treatment for recurrence is mostly the same as for the primary (first) occurrence of SCSC. See how it's treated in **Guide 7.**

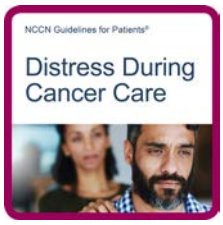
Guide 7
Treatment options for recurrence or new advanced disease

Local recurrence	• See *Chapter 4: Treating local SCSC* under "High risk or very high risk (early and advanced)"
Locally advanced recurrence	• See *Chapter 5: Treating advanced SCSC* under "Locally advanced"
New or recurrent satellitosis or in-transit metastasis	• See *Chapter 5* under "Satellitosis and In-transit metastasis"
New advanced disease	• See *Chapter 5* under "Nodal disease"
Advanced recurrence or distant spread	• A care team discussion is recommended before any treatment.

You're not alone

Facing a recurrence of cancer or metastatic SCSC can be stressful and overwhelming. You might experience feelings you're not used to, and you might not know where to turn for support. For more information on dealing with feelings and emotions that come with cancer care, see *NCCN Guidelines for Patients: Distress During Cancer Care.* It's available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.

Also be sure to check out the resources and helpful websites in the next chapter.



Follow-up care

For advanced SCSC, physical exams with skin checks should be performed every 2 to 3 months for 1 year, then every 2 to 4 months for the second year, and then every 4 to 6 months for another 3 years. After 3 years, they should be done every 6 to 12 months for the rest of your life.

Your care team may also want you to have CT scans on a regular basis to look for signs of cancer in nearby lymph nodes or in other parts of your body. For more information on your follow-up exam schedule, see **Guide 8** in *Chapter 6: After treatment and prevention.*



Supportive Care

Supportive care is an important part of cancer care. The goal is to improve your quality of life during and after cancer treatment. Supportive care is for everyone with cancer and their families, not just for those at the end of life.

Supportive care includes a wide range of services. Supportive care prevents or manages the symptoms of cancer and the side effects of cancer treatment, like pain and cancer-related fatigue. It also addresses the mental, social, emotional, and spiritual concerns faced by people with cancer.

Supportive care provides help with additional needs, such as:

- Making treatment decisions
- Coordinating your care
- Paying for care
- Planning for advance care and end of life

Some health care professionals refer to palliative care as supportive care. They think these types of care are alike or overlap. Others think there are important differences, but both help people with cancer to live as well as they can. Your cancer center may have palliative care specialists, who can give you additional support and help coordinate your supportive care needs.

Key points

- Squamous cell skin cancer (SCSC) that has spread is advanced.
- Your care team will test suspicious (not normal) lymph nodes to determine how far SCSC has spread.
- Testing could also include scans of your upper body, abdomen (belly), and pelvis to check for any metastatic disease (spread) to those areas. But it's very rare for SCSC to metastasize.
- Radiation therapy with or without systemic therapy is often given after surgery to kill leftover cancer cells.
- If surgery is not possible or not recommended for advanced SCSC, radiation therapy, systemic therapy, or a combination of both may be options.

Questions to ask

- How will you know if the treatment works?
- I'd like a second opinion. Can you recommend someone?
- How likely is my cancer to return?
- Am I a candidate for a clinical trial?
- What will the scar from the surgery look like? Will I need a plastic surgeon?

What's next?

Now that you've learned how advanced SCSC is treated, you can find out more about what happens next and how you'll be followed by your care team in *Chapter 6: After treatment and prevention.*

"I'm a 5-year survivor of SCSC. To everyone afraid to go to the doctor, I just want you to know early detection is the key… It's much easier to say, 'see you next year' rather than 'should have come and had it checked earlier.'"

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After treatment and prevention

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54 Prevention if you're at high risk for SCSC

57 Key points

57 Questions to ask

After treatment for squamous cell skin cancer (SCSC), your care team will want to check you for any new skin cancers—often called follow-up, surveillance, or monitoring. This chapter briefly explains ongoing care for everyone who's had SCSC.

You've finished treatment. Now you may be wondering if the cancer might return. Because you've already had squamous cell skin cancer (SCSC), you're at higher risk of getting it again. You're also at higher risk of getting other types of skin cancer. Read on to find out how best to prevent and catch any cancers early.

Skin exams by your doctor

After finishing treatment, getting regular skin exams to monitor for the return of squamous cell skin cancer is very important. These follow-up exams should include a complete check of the skin on your entire body, as well as the lymph nodes closest to the cancer site. You'll be asked to undress and put on a paper gown or drape. Undergarments can be worn during the exam. The gown will be adjusted to allow your doctor to see different areas.

How often you should be checked depends on whether the cancer was local or advanced. See **Guide 8** for a follow-up exam schedule.

Your care team should provide you with information about how you can play a role in preventing new skin cancer from forming. The information should cover 2 important topics: sun protection and skin self-exams.

Skin exams by your doctor

After finishing treatment, you should have your skin examined by a doctor on a regular basis. How often you have skin exams depends on whether cancer has spread to nearby lymph nodes.



Sun protection

Protecting your skin from the sun is an important part of preventing future squamous cell carcinomas. One of the best ways to do that is to use a broad-spectrum sunscreen with a sun protection factor (SPF) of 30 or higher.

When spending time outside, sunscreen should be reapplied to all exposed areas every 2 hours, or after swimming or sweating. Also consider using a face moisturizer with an SPF of 30 or higher on a daily basis.

Physically shielding your skin from the sun with hats and clothing can also help protect it. Like SPF ratings for sunscreen, clothing and hats with an ultraviolet protection factor (UPF) rating are available. The higher the number of UPF, the better protection against the sun's harmful rays.

Staying inside or in the shade during peak daylight hours (10 am to 4 pm) is another way to protect your skin. Avoid tanning booths or beds. Your goal is never to get another sunburn or suntan.

Guide 8
Follow-up exam schedule

Low-risk local SCSC (no spread to lymph nodes)	• Every 3 to 12 months for the first 2 years • Then every 6 to 12 months for the next 3 years • After that, once a year (every 12 months) for life
High-risk local SCSC (no spread to lymph nodes)	• Every 3 to 6 months for the first 2 years • Then every 6 to 12 months for the next 3 years • After that, once a year (every 12 months) for life
Very high-risk local SCSC (no spread to lymph nodes)	• Every 3 to 6 months for the first 2 years • Then, every 6 months for the next 3 years • After that, every 6 to 12 months (once or twice a year) for life
Advanced SCSC (spread to lymph nodes)	• Every 2 to 3 months for the first year • Then every 2 to 4 months for the second year • Then every 4 to 6 months for 3 years • After that, every 6 to 12 months (once or twice a year) for life

Skin self-exams

Your doctor should also teach you how to examine your skin yourself for signs of cancer. Following the same process each time can make it easier to notice any changes from the last time you checked. A handheld mirror is helpful for seeing hard-to-reach areas. You could also ask a friend or a partner to help you do the exam.

Ideally, you should do a self-exam once a month. If you had advanced SCSC, meaning that the cancer may have spread to your lymph nodes, ask your doctor how to inspect your lymph nodes for signs of cancer.

Prevention if you're at high risk for SCSC

Treating squamous cell skin cancer when it first appears can help prevent it from growing into deeper layers of the skin. But people who form SCSC lesions very easily are considered high risk, and treatment alone may not be the best strategy. Rather than waiting for SCSC to form, there are ways to help prevent it.

High-risk genetic syndromes

According to NCCN experts, people with the following genetic syndromes are at high risk of developing SCSC:

- Xeroderma pigmentosum (XP)
- Albinism
- Generalized eruptive keratoacanthoma of Grzybowski
- Rothmund-Thomson syndrome
- Dyskeratosis congenita
- Epidermodysplasia verruciformis
- Recessive dystrophic epidermolysis bullosa (RDEB)
- Severe generalized junctional epidermolysis bullosa

It's good practice to look at your skin for anything unusual at least once a month.



- KID syndrome (keratitis, ichthyosis, deafness)
- Ferguson-Smith disease

If you have any of these genetic syndromes, NCCN experts recommend referral to a cancer center with expertise in SCSC prevention and treatment. It's also important to receive counseling from someone with expertise in cancer genetics throughout the treatment process. This might be a genetic counselor, medical geneticist, endocrinologist, oncologist, surgeon, or an oncology nurse.

Other high-risk conditions

Additional skin checks and possibly more treatment may be needed if you're at high risk of developing more SCSCs and have any of the following conditions:

- Past or current solid organ, marrow, or stem cell transplant
- One or more cutaneous (skin) melanomas within the past 5 years
- Four or more non-melanoma skin cancers in the past 5 years

Medication for prevention

Medications to prevent SCSC have been shown to be helpful in people with the following conditions:

- Organ transplants
- Genetic syndromes (mentioned above)
- Psoriasis treated with psoralen and ultraviolet A (PUVA)
- More than 1 recurrence of SCSC
- Large areas of actinic keratosis

Prevention

While there is no proven way to prevent skin cancer, you may be able to lower your risk of future skin cancers. Speak with your doctor about your risk.

Taking the following steps may help reduce your risk:



Reduce UV light exposure
This means reducing exposure to the sun and avoiding the use of indoor tanning beds.



Prevent sun damage
Limit sun exposure between peak hours of 10:00 AM and 4:00 PM.



Wear protective clothing
This includes a wide-brimmed hat, clothes made with UV-protective fabric, and sunglasses.



Use sunscreen
Choose a broad-spectrum sunscreen with a sun protection factor (SPF) of at least 30 and apply 15 minutes before going outside. Reapply every 2 hours.



Examine your skin regularly
This includes self-examinations with the assistance of a partner and skin exams by a health care provider.

Some medicines used to help stop squamous cell skin cancer from forming are described next.

Oral retinoids

When taken by mouth (orally), drugs called retinoids can help prevent squamous cell skin cancer in people who form actinic keratoses easily. Acitretin (Soriatane) and isotretinoin are 2 retinoids used for this purpose.

Oral retinoids can cause drying or chapping of the lips, peeling of the skin, hair disorders, and more extreme side effects. They can also cause birth defects and should therefore be used with extreme caution in people who could become pregnant. People taking these drugs need to have their blood tested on a regular basis.

Oral nicotinamide

Nicotinamide is a form of niacin (vitamin B3). Nicotinamide supplements are used to treat skin conditions and niacin deficiencies. Nicotinamide may help prevent squamous cell carcinoma from forming.

It's typically taken orally (by mouth) twice a day. Be sure to check with your doctor on the dosage. No prescription is needed for nicotinamide, and it's considered safe.

Nicotinamide can also be made in the body by eating niacin-rich foods, such as fish, chicken or other poultry, nuts, legumes (beans), eggs, and cereal grains.

Finally, whether you're at high risk or normal risk, prevention of SCSC is key. If you're confused about the best type of prevention, don't hesitate to ask your doctor. See the sidebar for tips, and there's a list of some possible questions below.

Sun protection

When spending time outside, apply sunscreen with SPF 30 or higher. Use 1 ounce (a thumb-sized amount) for full body coverage, reapply to exposed areas every 2 hours, or after swimming or sweating. Consider using a face moisturizer with SPF 30 or higher on a daily basis.



Key points

- After treatment for squamous cell skin cancer (SCSC), it's important to have your skin examined by your doctor on a regular basis.
- How often exams are needed depends on whether cancer has spread to nearby lymph nodes.
- Using broad-spectrum sunscreen daily, wearing protective clothing, and staying out of the sun are steps you can take to help prevent new skin cancers from forming.
- People who've had SCSC should examine their skin themselves for signs of skin cancer on a routine basis.
- People at high risk of getting squamous cell skin cancer may benefit from medicines or topical treatments that can help prevent skin cancers from forming.
- People with advanced SCSC should also examine their lymph nodes.

Questions to ask

- If I find an unusual spot, what should I do?
- Should I always let you know about new spots? Is there a way to tell if it's suspicious?
- Will I need imaging tests?
- Do you have any recommendations for sunscreen or sun protective clothing?
- What else can I do to prevent another SCSC?

7
Other resources

59 What else to know

59 What else to do

59 Where to get help

60 Questions to ask

Want to learn more? Here's how you can get additional help.

What else to know

This guide helps you know your options so you can make informed decisions and improve your cancer care. But it's not the only resource that you have.

Ask for as much information and help as you need. Many people are interested in learning more about:

- The details of squamous cell skin cancer treatment and its side effects
- Being a part of a care team
- Getting financial help
- Finding a skin cancer care professional who's an expert in their field
- Coping with other health problems

What else to do

Your health care center can help you with next steps. It often has on-site resources to help meet your needs and find answers to your questions. Health care centers can also inform you of resources in your community.

In addition to help from your providers, the resources listed in the next section provide support for many people like yourself.

Where to get help

Look through the list below and visit the provided websites to learn more about these organizations.

AIM at Skin Cancer
aimatskincancer.org

Cancer*Care*
cancercare.org

Cancer Hope Network
cancerhopenetwork.org

GRACE
cancergrace.org

Imerman Angels
imermanangels.org

Save Your Skin Foundation
saveyourskin.ca

The Skin Cancer Foundation
skincancer.org

Triage Cancer
triagecancer.org

Questions to ask

- What help or programs are available to pay for medicines and other treatment?
- What supportive care and services are available to me and my caregivers?
- Who can I talk to about help with housing, food, and other basic needs?
- What assistance is available for transportation, childcare, and home care?
- How much will I have to pay for treatment?



We want your feedback!

Our goal is to provide helpful and easy-to-understand information on cancer. Take our survey to let us know what we got right and what we could do better.
NCCN.org/patients/feedback



Words to know

actinic keratosis
An area of scaly or bumpy skin that may become squamous cell skin cancer, but this change is uncommon. Also called solar keratosis.

basal cell skin cancer
The most common type of skin cancer. Also called basal cell skin carcinoma.

biopsy
A procedure that removes fluid or tissue samples to be tested for a disease.

chemotherapy
Drugs that kill fast-growing cells, including normal cells and cancer cells.

clinical trial
A type of research that assesses how well health tests or treatments work in people.

computed tomography (CT)
A test that uses x-rays from many angles to take a picture of the insides of the body.

cryotherapy
A procedure that freezes and destroys precancerous and cancerous cells using a very cold liquid or tool. Also called cryosurgery.

curettage and electrodesiccation (C&E)
A procedure used to treat skin cancer by scraping away cancerous tissue and destroying remaining cancer cells with an electric needle.

dermis
The second layer of skin beneath the top layer (epidermis). It contains hair follicles, nerves, sweat glands, oil glands, and blood vessels.

epidermis
The top layer of skin, where squamous cells and basal cells are found.

external beam radiation therapy (EBRT)
A cancer treatment with radiation delivered from a machine outside the body.

hypodermis (subcutis)
The deepest layer of skin, made up of fat and connective tissue.

immunotherapy
A cancer treatment that stimulates the activity of your body's immune system. By doing so, it improves your body's ability to find and destroy cancer cells.

in situ SCSC
A very early form of squamous cell skin cancer marked by scaly or thickened patches on the skin. Also called Bowen's disease.

intravenous (IV)
A method of giving drugs by a needle or tube inserted into a vein.

local therapy
A treatment given to a confined area.

Marjolin's ulcer
Squamous cell skin cancer that forms in an area of wounded, inflamed, or scarred skin.

metastasis
When cancer cells spread through blood and lymph to form tumors in other areas of the body.

Mohs surgery
The most common form of peripheral and deep en face margin assessment (PDEMA), a surgery used to treat skin cancer. It involves a step-by-step procedure to spare as much healthy tissue as possible.

nodal disease
Cancer cells that have spread from the primary tumor, regionally, to the lymph nodes.

peripheral and deep en face margin assessment (PDEMA)
Peripheral and deep en face margin assessment (PDEMA) refers to a technique that allows your doctor to view a high-quality image of the entire marginal surface of removed tissues.

photodynamic therapy (PDT)
Treatment with drugs that may kill cancer cells when exposed to light.

primary tumor
The first occurence of cancer cells in the body.

radiation therapy
A treatment that uses intense energy to destroy cancer cells. Also called radiotherapy.

resectable
A tumor that can be surgically removed (resected).

shave removal
A procedure where the doctor uses a sharp blade to remove a shallow lesion at or below the level of the surrounding skin.

squamous cell skin cancer (SCSC)
The second most common type of skin cancer, most often caused by many years of sun exposure. Also called cutaneous squamous cell carcinoma.

stereotactic body radiotherapy (SBRT)
A radiation technique that uses high doses of radiation to small areas to kill cancer cells.

subcutaneous tissue
The layer of skin below the dermis that contains many fat cells. Also called hypodermis.

sun protection factor (SPF)
A rating of protection against ultraviolet rays.

supportive care
Treatment given to prevent, control, or relieve side effects and improve comfort and quality of life. Also called supportive care or palliative care.

surgical margin
Normal, healthy-looking tissue removed around a tumor during surgery.

systemic therapy
Treatment that works throughout the body.

targeted therapy
Treatment that may target and attack specific types of cancer cells.

ultraviolet protection factor (UPF)
A rating system used for clothing, hats, and outdoor fabrics to measure how well they block ultraviolet (UV) radiation for both UVA and UVB rays.

unresectable
A tumor that can’t be surgically removed.

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