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Basal and Squamous Cell Skin Cancer Early Detection, Diagnosis, and Staging

Know the signs and symptoms of basal and squamous cell skin cancers. Find out how these cancers are tested for, diagnosed, and staged.

Detection and Diagnosis

Catching cancer early often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that is not always the case.

- [Can Basal and Squamous Cell Skin Cancers Be Found Early?](#)
- [Signs and Symptoms of Basal and Squamous Cell Skin Cancers](#)
- [Tests for Basal and Squamous Cell Skin Cancers](#)

Stages of Basal and Squamous Cell Skin Cancer

After a skin cancer diagnosis, staging can provide important information about the extent of cancer in the body and anticipated response to treatment.

- [Basal and Squamous Cell Skin Cancer Stages and Risk Groups](#)

Questions to Ask About Basal and Squamous Cell Skin Cancers

Get some questions you can ask your health care team to help you better understand your diagnosis and treatment options.

- [Questions to Ask About Your Basal or Squamous Cell Skin Cancer](#)

More Resources

[Skin Cancer Image Gallery](#)

See examples of skin cancer, as well as other non-cancerous types of skin growths in this gallery.

[Skin Biopsy and Treatment Procedures](#)

Explore 3D interactive animations of common biopsy and treatment procedures for skin cancer.

Can Basal and Squamous Cell Skin Cancers Be Found Early?

With skin self-exams and skin checks by a health care professional, basal cell and squamous cell skin cancers can often be found early. When skin cancers are found early, they are likely to be easier to treat.

- [Skin self-exam](#)
[Skin exam by a health care professional](#)

family member can also help you with these exams, especially for those hard-to-see areas, such as your scalp and back.

To learn more, see [How to Do a Skin Self-Exam](#)¹.

Be sure to show your doctor any areas that concern you and ask your doctor to look at areas that may be hard for you to see.

Any spots on the skin that are new or changing in size, shape, or color should be checked by a doctor. Any unusual sore, lump, blemish, marking, or change in the way an area of the skin looks or feels may be a sign of skin cancer or a warning that it might occur. The area might become red, swollen, scaly, crusty or begin oozing or bleeding. It may feel itchy, tender, or painful.

Basal cell and squamous cell skin cancers can look like a variety of marks on the skin. The key warning signs are a new growth, a spot or bump that's getting larger over time, or a sore that doesn't heal within a few weeks. (See [Signs and Symptoms of Basal and Squamous Cell Skin Cancer](#) for a more detailed description of what to look for.)

[Skin Cancer Image Gallery](#)²

See examples of skin cancer, as well as other non-cancerous types of skin growths in this gallery.

[Flyer: Checking Your Skin for Signs of Cancer](#)

Skin exam by a health care professional

Some doctors and other health care professionals do skin exams as part of routine health check-ups.

Having regular skin exams is especially important for people who are at [high risk of skin cancer](#)³, such as people with a weakened immune system (for example, those who have had an organ transplant) or people with conditions such as basal cell nevus syndrome (Gorlin syndrome) or xeroderma pigmentosum (XP). Talk to your doctor about how often you should have your skin examined.

Hyperlinks

1. www.cancer.org/cancer/risk-prevention/sun-and-uv/skin-exams.html

2. www.cancer.org/cancer/types/skin-cancer/skin-cancer-image-gallery.html
3. www.cancer.org/cancer/types/basal-and-squamous-cell-skin-cancer/causes-risks-prevention/risk-factors.html

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Signs and Symptoms of Basal and Squamous Cell Skin Cancers

What basal cell carcinoma looks like

Basal cell cancers (BCCs) usually develop on areas exposed to the sun, especially the face, head, neck, and arms, but they can occur anywhere on the body.

In people with lighter-colored skin, these cancers can appear as:

- Small, pink or red, translucent, shiny, pearly bumps, which might have blue, brown, or black areas
- Pink growths with raised edges and a lower area in their center, which might contain abnormal blood vessels spreading out like the spokes of a wheel
- Flat, firm, pale or yellow areas, similar to a scar
- Raised reddish patches that might be itchy
- Open sores (which may have oozing or crusted areas) that don't heal, or that heal and then come back

BCCs are less common in people with darker skin color. When they do occur, they often have many of the same features (such as being translucent or shiny, or having raised edges), although they are often darker in color.

Basal cell cancers are often fragile and might bleed after shaving or after a minor injury. Sometimes people go to the doctor because they have a sore or a cut from shaving that just won't heal, which turns out to be a basal cell cancer. A simple rule of thumb is that most sores or cuts heal within a week or two.

and then come back

- Wart-like growths

Other ways basal and squamous cell carcinomas can look

Both basal and squamous cell skin cancers can also develop as a flat area showing only slight changes from normal skin.

These and other types of skin cancers can also look different from the descriptions above. This is why it's important to have a doctor check any new or changing skin growths, sores that don't heal, or other areas that concern you.

[Skin Cancer Image Gallery](#) ¹

See examples of skin cancer, as well as other non-cancerous types of skin growths in this gallery.

[Flyer: Checking Your Skin for Signs of Cancer](#)

Hyperlinks

1. www.cancer.org/cancer/types/skin-cancer/skin-cancer-image-gallery.html

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Lim JL, Asgari M. Cutaneous squamous cell carcinoma (cSCC): Clinical features and diagnosis. UpToDate. 2023. Accessed at <https://www.uptodate.com/contents/cutaneous-squamous-cell-carcinoma-cscc-clinical-features-and-diagnosis> on August 23, 2023.

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Tests for Basal and Squamous Cell Skin Cancers

Most basal and squamous cell skin cancers are brought to a doctor's attention because of [signs or symptoms](#) a person is having.

- [Medical history and physical exam](#)
- [Skin biopsy](#)
- [Lymph node biopsy](#)
- [Imaging tests](#)

may be checked for moles and other spots that could be related to skin cancer (or other skin conditions).

Along with a standard physical exam, some dermatologists use a technique called **dermoscopy** (also known as **dermatoscopy**, **epiluminescence microscopy [ELM]** or **surface microscopy**) to look at spots on the skin more closely. The doctor uses a dermatoscope, which is a special magnifying lens and light source held near the skin. Sometimes a thin layer of alcohol or oil is used with this instrument. The doctor may take a digital photo of the spot.

The doctor may also feel the nearby lymph nodes, which are bean-sized collections of immune system cells under the skin in certain areas. Some skin cancers can spread to lymph nodes. When this happens, the nodes might be felt as lumps under the skin.

Skin biopsy

If the doctor thinks that a suspicious area might be skin cancer, the area (or part of it) will be removed and sent to a lab to be looked at under a microscope. This is called a **skin biopsy**. If the biopsy removes the entire tumor, andpn(or part of it)

remove a deeper sample of skin. The doctor rotates the punch biopsy tool on the skin until it cuts through all the layers of the skin. The sample is then removed, and the edges of the biopsy site are often stitched together.

Excisional and incisional biopsies

To examine a tumor is larger or that may have grown into deeper layers of the skin, the doctor may use an [excisional](#)⁴ (or less often, an incisional) biopsy.

- An **excisional biopsy** removes the entire tumor.
- An **incisional biopsy** removes only a portion of the tumor.

For these types of biopsies, a surgical knife is used to cut through the full thickness of skin. A wedge or sliver of skin is removed for examination, and the edges of the wound are usually stitched together.

Examining the biopsy samples

All skin biopsy samples are sent to a lab, where a doctor called a **pathologist** looks at them with a microscope and may do other tests on them. Often, the samples are sent to a **dermatopathologist**, a doctor who has special training in looking at skin samples.

[Skin Biopsy and Treatment Procedures](#)⁵

Explore 3D interactive animations of common biopsy and treatment procedures for skin cancer.

[Flyer: Tests and Procedures to Find and Treat Skin Cancer](#)

Lymph node biopsy

It isn't common for a basal or squamous cell cancer to spread beyond the skin, but if it does it usually goes first to nearby lymph nodes, which are bean-sized collections of immune cells. If your doctor feels lymph nodes under the skin near the tumor that are too large or too firm, a lymph node biopsy may be done to find out if cancer has spread to them. This might be done in different ways.

Fine needle aspiration (FNA)

For an FNA, the doctor uses a syringe with a thin, hollow needle to remove very small fragments of the lymph node. The needle is smaller than the needle used for a blood test. A local anesthetic is sometimes used to numb the area first. This test rarely causes

much discomfort and does not leave a scar.

FNAs are not as invasive as some other types of biopsies, but they may not always provide a large enough sample to find cancer cells.

Surgical (excisional) lymph node biopsy

If an FNA doesn't find cancer in a lymph node but the doctor still suspects the cancer has spread there, the lymph node may be removed.

Alguire PC, Mathes BM. Skin biopsy techniques. UpToDate. 2023. Accessed at <https://www.uptodate.com/contents/skin-biopsy-techniques> on August 23, 2023.

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Basal and Squamous Cell Skin Cancer Stages and Risk Groups

The stage of a basal or squamous cell skin cancer is a way of describing how large the

cancer is and how far it has spread. Knowing the stage is important to help determine your treatment options and to get an idea of how likely the cancer is to come back after treatment.

- [Staging basal and squamous cell skin cancers](#)
- [How is the stage determined?](#)
- [Other factors that can affect a person's outlook and treatment options](#)
- [Risk groups for basal and squamous cell skin cancers](#)

Staging basal and squamous cell skin cancers

Staging is the process of figuring out if the cancer has spread, and if so, how far. The stage of a cancer describes how much cancer is in the body.

The stage of a basal or squamous cell skin cancer is based on the results of the physical exam, the skin biopsy (and any other biopsies), and imaging tests if they are done.

For **basal cell skin cancers (BCCs)**, staging is rarely needed, because these cancers are almost always cured before they spread to other parts of the body.

Squamous cell skin cancers (SCCs) are more likely to spread (although this risk is still small), so determining the stage can be more important, particularly in people who are at [higher risk](#)¹. This includes people with weakened immune systems, such as those who have had organ transplants and people infected with HIV, the virus that causes AIDS. Most SCCs occur in the head and neck region. They tend to have a higher risk of recurring (coming back) or spreading compared to SCCs in other locations.

How is the stage determined?

The system most often used to stage basal and squamous cell skin cancers is the **American Joint Commission on Cancer (AJCC) TNM system**. The most recent version, effective as of 2018, applies only to squamous and basal cell skin cancers of the head and neck area (lip, ear, face, scalp, and neck). The stage is based on 3 key pieces of information:

- The size of the **tumor (T)** and if it has grown deeper into nearby structures or tissues, such as a bone
- If the cancer has spread to nearby lymph **nodes (N)**
- If the cancer has spread (**metastasized**) to distant parts of the body (**M**)

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced.

Once a person's T, N, and M categories have been determined, this information is combined in a process called **stage grouping** to assign an overall stage. The earliest stage of skin cancer is stage 0 (also called *carcinoma in situ*, or CIS). The other stages range from I (1) through IV (4). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more.

Although the AJCC system is most common, other staging systems have also been developed. For example, the **Brigham and Women's Hospital (BWH) tumor classification system** uses different risk factors to stage squamous cell skin cancers of the head and neck area.

If your skin cancer is in the head and neck area, talk to your doctor about your specific stage. Cancer staging can be complex, so ask your doctor to explain it to you in a way you understand.

To learn more about how cancers are staged, see [Cancer Staging²](#).

Other factors that can affect a person's outlook and treatment options

squamous cell skin cancer).

Risk groups for basal and squamous cell skin cancers

The National Comprehensive Cancer Network (NCCN) is an alliance of many of the nation's leading cancer centers that develops treatment guidelines for cancer care. The NCCN uses many of the factors above to divide both basal and squamous cell cancers into **risk groups**, which can be used to determine the best treatment options.

Basal cell skin cancer risk groups

BCCs are divided into 2 risk groups: high and low risk, based on how likely they are to come back after treatment.

BCCs are at **high risk** of coming back after treatment if they have any of the following features:

- The tumor is on the trunk (chest or back), arm, or leg (other than the front of the lower leg), AND it's at least 2 centimeters (cm) across.
- The tumor is on any other part of the body (head, neck, hands, feet, or genital area), regardless of size.
- The tumor doesn't have well-defined borders.
- The tumor is a recurrence (as opposed to a new tumor).
- The tumor is in a place that was previously treated with radiation.
- The tumor has an aggressive growth pattern (when seen under a microscope).
- Cancer cells have invaded small nerves in or near the tumor (known as **perineural invasion**).
- The person with BCC has a weakened immune system.

BCCs that don't have any of these features are in the **low risk** group.

To learn more about how these risk groups might affect your treatment options, see [Treating Basal Cell Carcinoma³](#).

Squamous cell skin cancer risk groups

SCCs are divided into 3 risk groups, based on how likely they are to spread or to come back after treatment.

SCCs in the **very high risk** group have an increased risk of both coming back after treatment and of spreading to another part of the body. They have at least one of the following features:

- The tumor is at least 4 centimeters (cm) across.
- The cancer cells look poorly differentiated (very abnormal) under a microscope.
- The cancer is labeled as a desmoplastic SCC (based on how it looks under a microscope).
- The tumor is more than 6 millimeters (mm) deep, or it has grown beyond the fat layer below the skin (subcutaneous fat).
- Cancer cells have invaded a nerve deeper than the dermis layer of the skin.
- Cancer cells have invaded a blood vessel or lymph vessel in or near the tumor.

SCCs in the **high risk** group have an increased risk of coming back after treatment. These cancers don't have any of the very high risk features above, but they have at least one of the following features:

- The tumor is on the trunk (chest or back), arm, or leg (other than the front of the lower leg), AND it's more than 2 cm but no more than 4 cm across.
- The tumor is on any other part of the body (head, neck, hands, feet, front of the lower leg, or genital area), regardless of size.
- The extent of the tumor isn't well defined.
- The tumor is a recurrence (as opposed to a new tumor).
- The tumor is in a place that was previously treated with radiation, or it's in a place where there's been chronic (long-term) inflammation.
- The tumor is growing quickly.
- The tumor is causing neurologic symptoms, such as pain or itching.
- The cancer is labeled as acantholytic, adenosquamous, or metaplastic SCC (based on how it looks under a microscope).
- The tumor is 2 to 6 millimeters (mm) deep.
- Cancer cells have invaded small nerves in or near the tumor (known as **perineural invasion**).
- The person with SCC has a weakened immune system.

SCCs that don't have any of the features in either group above are in the **low risk** group.

Hyperlinks

1. www.cancer.org/cancer/types/basal-and-squamous-cell-skin-cancer/causes-risks-prevention/risk-factors.html
2. www.cancer.org/cancer/diagnosis-staging/staging.html
3. www.cancer.org/cancer/types/basal-and-squamous-cell-skin-cancer/treating/basal-cell-carcinoma.html
4. www.cancer.org/cancer/types/basal-and-squamous-cell-skin-cancer/treating/squamous-cell-carcinoma.html

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Questions to Ask About Your Basal or Squamous Cell Skin Cancer

If you have basal or squamous cell skin cancer, it's important to have honest, open discussions with your doctor. Ask any question, no matter how small it might seem. Here are some questions you might want to ask.

- [When you're told you have skin cancer](#)
- [When deciding on a treatment plan](#)
- [After treatment](#)

When you're told you have skin cancer

- What [type of skin cancer](#)¹ do I have?
Can you explain the different types of skin cancer?

- What are my [treatment options](#)²? What do you recommend? Why?
- Will I be OK if the cancer is just removed with no other treatment?
- What will treatment be like? Where will it be done?
- What are the risks or side effects from treatment?
- Will I have a scar after treatment? How big will it be?
- How quickly do we need to decide on treatment?
- What should I do to be ready for treatment?

After treatment

- What are the chances of my cancer coming back with the treatment options we have discussed? What would our options be if that happens?
- What are my chances of developing another skin cancer?
- Should I take special precautions to avoid the sun? What steps I can take to protect myself?
- What type of [follow-up](#)³ will I need after treatment?
- How will we know if the cancer has come back? What should I watch for?
- Are any of my family members at risk for skin cancer? What should I tell them to do?

Along with these sample questions, be sure to write down any others you have. For instance, you might want more information about recovery times so you can plan your work, activity schedule. You may want to ask about [second opinions](#)⁴ or about [clinical trials](#)⁵ for which you may qualify.

ant to ask about

3. www.cancer.org/cancer/types/basal-and-squamous-cell-skin-cancer/after-treatment/follow-up.html
www.cancer.org/cancer/managing-cancer/finding-care/seeking-a-second-opinion.html