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Treating Basal and Squamous Cell Skin Cancer

If you've been diagnosed with basal or squamous cell skin cancer, your treatment team will discuss your options with you. It's important to weigh the benefits of each treatment option against the possible risks and side effects.

How are basal and squamous cell skin cancers treated?

Based on the type and stage of the cancer and other factors, your treatment options may include:

- [Surgery for Basal and Squamous Cell Skin Cancers](#)
- [Local Treatments Other than Surgery for Basal and Squamous Cell Skin Cancers](#)
- [Radiation Therapy for Basal and Squamous Cell Skin Cancers](#)
- [Systemic Chemotherapy for Basal and Squamous Cell Skin Cancers](#)
- [Targeted Therapy for Basal and Squamous Cell Skin Cancers](#)
- [Immunotherapy for Advanced Basal or Squamous Cell Skin Cancers](#)

Common treatment approaches

Different approaches might be used to treat basal cell carcinoma, squamous cell carcinoma, actinic keratosis, and Bowen disease. Fortunately, most of these cancers and pre-cancers can be cured with fairly minor surgery or other types of local treatments.

(Other skin cancers, such as [melanoma](#), [lymphoma of the skin](#), [Merkel cell carcinoma](#), [Kaposi sarcoma](#), and [other sarcomas](#) are treated differently and are covered elsewhere.)

- [Treating Basal Cell Carcinoma](#)
- [Treating Squamous Cell Carcinoma of the Skin](#)
- [Treating Actinic Keratosis and Bowen Disease](#)
- [Skin Cancer Treatments \[PDF\]](#)

Who treats basal and squamous cell skin cancers?

You might have different types of doctors on your treatment team. Most basal and squamous cell cancers (as well as pre-cancers) are treated by **dermatologists** – doctors who specialize in treating skin diseases.

If the cancer is more advanced, you may be treated by another type of doctor, such as:

- A **surgical oncologist**: a doctor who treats cancer with surgery
- A **medical oncologist**: a doctor who treats cancer with chemotherapy or other medicines
- A **radiation oncologist**: a doctor who treats cancer with radiation therapy

You might have many other specialists on your treatment team as well, including physician assistants (PAs), nurse practitioners (NPs), nurses, nutrition specialists, social workers, and other health professionals.

- [Health Professionals Associated with Cancer Care](#)

Making treatment decisions

It's important to discuss all of your treatment options, including their goals and possible side effects, with your doctors to help make the decision that best fits your needs. Some important things to consider include:

- The type and location of your skin cancer
- The likelihood that treatment will cure your cancer (or help in some other way)
- Your age and overall health
- Possible side effects of treatment, such as scars or changes in your appearance, and your feelings about them

You might feel that you need to make a decision quickly, but it's important to give yourself time to absorb the information you have just learned. It's also very important to ask questions if there is anything you're not sure about.

If time permits, it is often a good idea to seek a second opinion. A second opinion can give you more information and help you feel more confident about the treatment plan you choose.

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

Thinking about taking part in a clinical trial

Clinical trials are carefully controlled research studies that are done to get a closer look at promising new treatments or procedures. Clinical trials are one way to get state-of-the-art cancer treatment. In some cases they may be the only way to get access to newer treatments. They are also the best way for doctors to learn better methods to treat cancer. Still, they're not right for everyone.

If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital conducts clinical trials.

- [Clinical Trials](#)

Considering complementary and alternative methods

You may hear about alternative or complementary methods that your doctor hasn't mentioned to treat your cancer or relieve symptoms. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods refer to treatments that are used along with your regular medical care. Alternative treatments are used instead of a doctor's medical treatment. Although some of these methods might be helpful in relieving symptoms or helping you feel better, many have not been proven to work. Some might even be harmful.

Be sure to talk to your cancer care team about any method you are thinking about using. They can help you learn what is known (or not known) about the method, which can help you make an informed decision.

- [Complementary and Alternative Medicine](#)

Help getting through cancer treatment

People with cancer need support and information, no matter what stage of illness they may be in. Knowing all of your options and finding the resources you need will help you make informed decisions about your care.

Whether you are thinking about treatment, getting treatment, or not being treated at all, you can still get supportive care to help with pain or other symptoms. Communicating with your cancer care team is important so you understand your diagnosis, what treatment is recommended, and ways to maintain or improve your quality of life.

Different types of programs and support services may be helpful, and can be an important part of your care. These might include nursing or social work services, financial aid, nutritional advice, rehab, or spiritual help.

The American Cancer Society also has programs and services – including rides to treatment, lodging, and more – to help you get through treatment. Call our National Cancer Information Center at 1-800-227-2345 and speak with one of our trained specialists.

- [Palliative Care](#)
- [Find Support Programs and Services in Your Area](#)

Choosing to stop treatment or choosing no treatment at all

For some people, when treatments have been tried and are no longer controlling the cancer, it could be time to weigh the benefits and risks of continuing to try new treatments. Whether or not you continue treatment, there are still things you can do to help maintain or improve your quality of life.

Some people, especially if the cancer is advanced, might not want to be treated at all. There are many reasons you might decide not to get cancer treatment, but it's important to talk to your doctors and you make that decision. Remember that even if you choose not to treat the cancer, you can still get supportive care to help with pain or other symptoms.

- [If Cancer Treatments Stop Working](#)

The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is intended to help you and your family make informed decisions, together with your doctor. Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don't hesitate to ask him

or her questions about your treatment options.

Surgery for Basal and Squamous Cell Skin Cancers

Surgery is a common treatment for basal cell and squamous cell skin cancers. Different surgical techniques can be used. The options depend on the type of skin cancer, how large the cancer is, where it is on the body, and other factors. Most often the surgery can be done in a doctor's office or hospital clinic using a local anesthetic (numbing medicine). For skin cancers with a high risk of spreading, surgery sometimes will be followed by other treatments, such as [radiation](#) or [chemotherapy](#).

Excision

This is similar to an excisional biopsy (see [Tests for Basal and Squamous Cell Skin Cancer](#)¹), but in this case the diagnosis is already known. For this procedure, the skin is first numbed with a local anesthetic. The tumor is then cut out with a surgical knife, along with some surrounding normal skin. Most often, the remaining skin is then carefully stitched back together. This type of surgery will leave a scar.

Curettage and electrodesiccation

In this treatment, the doctor removes the cancer by scraping it with a long, thin instrument with a sharp looped edge on one end (called a *curette*). The area is then treated with an electric needle (electrode) to destroy any remaining cancer cells. This process is often repeated once or twice during the same office visit. [Curettage and electrodesiccation](#)² is a good treatment for superficial (confined to the top layer of skin) basal cell and squamous cell cancers. It will leave a scar.

Mohs surgery

[Mohs surgery](#)³ (also known as **Mohs micrographic surgery**, or MMS) is sometimes used when there is a high risk the skin cancer will come back after treatment, when the extent of the skin cancer is not known, or when the goal is to save as much healthy skin

as possible, such as with cancers near the eye or other critical areas such as the central part of the face, the ears, or fingers.

The Mohs procedure is done by a surgeon with special training. First, the surgeon removes a very thin layer of the skin (including the tumor) and then checks the removed sample under a microscope. If cancer cells are seen, another layer is removed and examined. This is repeated until the skin samples are free of cancer cells. This is a slow process, often taking several hours, but it means that more normal skin near the tumor can be saved. This can help the area look better after surgery.

Mohs often results in better outcomes than some other forms of surgery and other treatments. But it's also usually more complex and time-consuming than other methods. In recent years, skin cancer experts have developed guidelines for when it's best to use this technique based on the type and size of skin cancer, where it is on the body, and other important features.

Lymph node surgery

If lymph nodes near a squamous or basal cell skin cancer are enlarged, the doctor might biopsy them to check for cancer cells (see [Tests for Basal and Squamous Cell Skin Cancer⁴](#)).

Sometimes, many nodes might be removed in a more extensive operation called a **lymph node dissection**. The nodes are then looked at under a microscope for signs of cancer. This type of operation is more extensive than surgery on the skin and is usually done while you are under general anesthesia (in a deep sleep).

[Lymphedema⁵](#), a condition in which excess fluid collects in the legs or arms, is a possible long-term side effect of a lymph node dissection. If it's severe enough, it can cause skin problems and an increased risk of infections in the limb. Talk to your doctor about your risk of lymphedema. It's important to know what to watch for, and to take the steps to help reduce your risk.

Skin grafting and reconstructive surgery

After surgery to remove a large basal or squamous cell skin cancer, it may not be possible to stretch the nearby skin enough to stitch the edges of the wound together. In these cases, healthy skin can be taken from another part of the body and grafted over the wound to help it heal and to restore the appearance of the affected area. Other reconstructive surgical procedures, such as moving 'flaps' of nearby skin over the wound, can also be helpful in some cases.

Hyperlinks

1. www.cancer.org/cancer/basal-and-squamous-cell-skin-cancer/detection-diagnosis-staging/how-diagnosed.html
2. www.cancer.org/cancer/skin-cancer/skin-biopsy-treatment-procedures/curettage-electrodesiccation.html
3. www.cancer.org/cancer/skin-cancer/skin-biopsy-treatment-procedures/mohs-surgery.html
4. www.cancer.org/cancer/basal-and-squamous-cell-skin-cancer/detection-diagnosis-staging/how-diagnosed.html
5. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/lymphedema.html

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Local Treatments Other than Surgery for

Basal and Squamous Cell Skin Cancers

Several techniques other than [surgery](#) can be used to treat basal and squamous cell skin cancers (or pre-cancers) that haven't spread beyond the skin. These include:

- Cryotherapy
- Photodynamic therapy (PDT)
- Topical chemotherapy
- Immune response modifiers
- Laser surgery
- Chemical peeling

These are called *local treatments*, and some are even described as types of surgery, because they destroy a targeted area of body tissue. But these techniques are different from surgery because they don't use scalpels or cut into the skin. ([Radiation therapy](#) is also a type of local treatment.)

Cryotherapy (cryosurgery)

Cryotherapy is used most often for pre-cancerous conditions such as actinic keratosis and for small basal cell and squamous cell carcinomas.

For this treatment, the doctor applies liquid nitrogen to the tumor to **freeze and kill** the cells. This is often repeated a couple of times in the same office visit. After the dead area of skin thaws, it will swell, blister and crust over.

The wound may have fluid draining from it for a while and take a month or two to heal. It will leave a scar, and the treated area may have less color after treatment.

Photodynamic therapy (PDT)

PDT can be used to treat actinic keratoses. But its exact role in treating basal and squamous cell skin cancers still needs to be determined.

This treatment uses a drug that is applied to the skin as a gel or liquid. The drug collects in the tumor cells over several hours or days, where it is converted to a different chemical that makes the cells very sensitive to certain types of light. A special light source is then focused on the tumor(s), which kills the cells. Another option to activate the drug, especially when large areas need to be treated, is to have the person go out

into the sunlight for a specific amount of time (known as **daylight PDT**).

PDT can cause redness and swelling on the skin where it is used. Another possible side effect of PDT is that it can make a person's skin very sensitive to sunlight for some time, so precautions may be needed to avoid severe burns.

To learn more about this technique, see [Photodynamic Therapy](#)¹.

Topical chemotherapy

Chemotherapy uses drugs that kill cancer cells. Topical chemotherapy means that **an anti-cancer medicine is put directly on the skin** (usually in a cream or ointment) rather than being given by mouth or injected into a vein.

5-fluorouracil (5-FU): The drug most often used in topical treatment of actinic keratoses, as well as some basal and squamous cell skin cancers, is 5-FU (with brand names such as Efudex, Carac, and Fluoroplex). It is typically applied to the skin once or twice a day for several weeks.

When put directly on the skin, 5-FU kills tumor cells on or near the skin's surface, but it can't reach cancer cells deeper in the skin or those that have spread to other organs. For this reason, 5-FU is generally used only for pre-cancerous conditions such as actinic keratosis and for some very superficial skin cancers.

Because the drug is only applied to the skin, it doesn't spread throughout the body, so it doesn't cause the same side effects as [systemic chemotherapy](#) (treatment that affects the whole body). But it does make the treated skin red and very sensitive for a few weeks. Other topical medicines can be used to help relieve this, if needed. 5-FU can also make the skin more sensitive to sunlight, so treated areas must be protected from the sun to prevent sunburn for a few weeks after use of this cream.

A very small portion of people have a condition called *DPD deficiency*, which makes it hard for their bodies to break down and get rid of 5-FU. This can result in serious or even life-threatening side effects. If you are applying 5-FU and have any reactions beyond those you were told to expect on your skin, call your doctor or nurse right away.

Diclofenac (Solaraze): A gel containing the drug diclofenac is sometimes used to treat actinic keratoses. This drug is part of a group of drugs called nonsteroidal anti-inflammatory drugs (NSAIDs), which includes aspirin and ibuprofen. The gel is usually applied twice daily for 2 or 3 months. It may cause less severe skin reactions than 5-FU, but it can also take longer to work.

Immune response modifiers

Certain drugs can **boost the body's immune response** against the cancer, causing it to shrink and go away.

Imiquimod (Zyclara) is a cream that can be applied to actinic keratoses and some very early basal cell cancers. It causes the immune system to react to the skin lesion and destroy it. It's typically applied at least a few times a week for several weeks, although schedules can vary. Like other topical products, it can cause severe skin reactions in some people. It can also cause flu-like symptoms.

Interferon is a man-made version of an immune system protein. It can be injected directly into the tumor to boost the immune response against it. It might be an option when surgery isn't possible, but it may not be as effective as other treatments.

Laser surgery

This approach uses a **beam of laser light to vaporize** cancer cells. It's sometimes used for actinic keratosis, squamous cell carcinoma in situ (Bowen disease), and for very superficial basal cell carcinomas (those only on the surface of the skin). It's not yet known if this type of treatment is as effective as standard methods of treatment, and it's not widely used.

Chemical peeling

For this technique, the doctor **applies a chemical** such as trichloroacetic acid (TCA) to the skin tumor, killing the tumor cells over the course of several days. This approach is sometimes used to treat actinic keratosis.

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation/photodynamic-therapy.html

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Radiation Therapy for Basal and Squamous Cell Skin Cancers

Radiation therapy uses high-energy rays (such as x-rays) or particles (such as photons, electrons, or protons) to kill cancer cells.

When is radiation therapy used?

If a tumor is very large or is on an area of the skin that makes it hard to remove with [surgery](#), radiation therapy may be used as the main treatment. Radiation therapy can also be useful for some patients who, for other health reasons, can't have surgery. Radiation therapy can often cure small basal or squamous cell skin cancers and can delay the growth of more advanced cancers.

Radiation is also useful when combined with other treatments. For example, radiation

can be used after surgery as an adjuvant (additional) treatment to kill any small areas of remaining cancer cells that may not have been visible during surgery. This lowers the risk of cancer coming back after surgery. Radiation may also be used to help treat skin cancer that has spread to lymph nodes or other organs.

How is radiation therapy given?

When radiation therapy is used to treat skin cancers, the radiation is focused from outside the body onto the tumor. This is often done using a beam of low-energy x-rays (**superficial radiation therapy**) or electrons (**electron beam radiation**). These types of radiation don't go any deeper than the skin. This helps limit the side effects to other organs and body tissues.

Getting radiation treatment is much like getting an x-ray, but the radiation is stronger and aimed more precisely at the cancer. The procedure itself is painless. Each treatment lasts only a few minutes, although the setup time – getting you into place for treatment – takes longer.

Possible side effects of radiation

Side effects of radiation are usually limited to the area getting radiation, and can include:

- Skin irritation, ranging from redness to blistering and peeling
- Changes in skin color
- Hair loss in the area being treated
- Damage to saliva-making glands and teeth when treating cancers near these structures

With longer treatment, these side effects may get worse.

After many years, **new skin cancers** sometimes develop in areas previously treated by radiation. For this reason, radiation usually is not used to treat skin cancer in young people. Radiation is also not recommended for people with certain [inherited conditions](#)¹ (such as basal cell nevus syndrome or xeroderma pigmentosum), who may be at higher risk for new cancers, or for people with connective tissue diseases (such as lupus or scleroderma), which radiation might make worse.

More information about radiation therapy

To learn more about how radiation is used to treat cancer, see [Radiation Therapy](#)².

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)³.

Hyperlinks

1. www.cancer.org/cancer/basal-and-squamous-cell-skin-cancer/causes-risks-prevention/risk-factors.html
2. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html
3. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html

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Systemic Chemotherapy for Basal and Squamous Cell Skin Cancers

Systemic chemotherapy (chemo) uses anti-cancer drugs that are injected into a vein or given by mouth. These drugs travel through the bloodstream to all parts of the body. Unlike [topical chemotherapy](#), which is applied to the skin, systemic chemotherapy can attack cancer cells that have spread to lymph nodes and other organs.

If **squamous cell carcinoma** has spread, chemo might be an option, although an [immunotherapy](#) drug might be used first.

If chemo is used, drugs such as cisplatin and 5-fluorouracil (5-FU) might be options. These drugs are given into a vein (intravenously, or IV), usually once every few weeks. They can often slow the spread of these cancers and relieve some symptoms. In some cases, they might shrink tumors enough so that other treatments such as [surgery](#) or [radiation therapy](#) can be used.

Basal cell carcinoma very rarely reaches an advanced stage, so systemic chemotherapy is not typically used to treat these cancers. Advanced basal cell cancers are more likely to be treated with [targeted therapy](#).

Possible side effects of chemotherapy

Chemo drugs can cause side effects. These depend on the type and dose of drugs given and how long they are used. The side effects of chemo can include:

- Hair loss
- Mouth sores
- Loss of appetite
- Nausea and vomiting
- Diarrhea or constipation
- Increased risk of infection (from having too few white blood cells)
- Easy bruising or bleeding (from having too few blood platelets)
- Fatigue (from having too few red blood cells)

These side effects usually go away once treatment is finished. Some drugs can have specific effects that are not listed above, so be sure to talk with your cancer care team about what you might expect.

There are often ways to lessen these side effects. For example, drugs can help prevent or reduce nausea and vomiting. Tell your medical team about any side effects or changes you notice while getting chemo so that they can be treated promptly.

More information about chemotherapy

For more general information about how chemotherapy is used to treat cancer, see [Chemotherapy](#)¹.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)².

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html
2. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html

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Targeted Therapy for Basal and Squamous Cell Skin Cancers

These drugs target parts of skin cancer cells that make them different from normal skin cells. Targeted drugs work differently from standard [chemotherapy](#) drugs. They may work sometimes when chemotherapy drugs don't. They can also have different (and sometimes less severe) side effects. Doctors are still learning the best way to use these drugs to treat skin cancers.

Hedgehog pathway inhibitors

Vismodegib (Erivedge) and **sonidegib (Odomzo)** are targeted drugs that can be used to treat some advanced or recurrent basal cell skin cancers.

It's very rare for basal cell cancers to reach an advanced stage, but if they do, these cancers can be hard to treat. Most basal cell cancers have mutations (changes) in genes that are part of a cell signaling pathway called *hedgehog*. (Cell signaling pathways are how a cell gives instructions from one part of the cell to another, or to other cells.) The hedgehog pathway is crucial for the development of the embryo and fetus and is important in some adult cells, but it can be overactive in basal cell cancer cells, helping them grow. These drugs target a protein in this pathway.

These drugs are capsules taken once a day. For basal cell cancers that have spread or come back after [surgery](#) or [other local treatments](#), these drugs have been shown to help shrink tumors in some people, although it's not yet clear if they help people live longer.

Side effects can include muscle spasms, joint pain, hair loss, fatigue, problems with taste, poor appetite and weight loss, nausea and vomiting, itchy skin, diarrhea, and constipation. These drugs can also cause women to stop having their periods.

Because the hedgehog pathway affects fetal development, these drugs should not be taken by women who are pregnant or could become pregnant. It is not known if they could harm the fetus if taken by a male partner. Anyone taking these drugs should use reliable birth control during and for some time after treatment.

EGFR inhibitors

Squamous cell skin cancer cells often have too much of a protein called EGFR on their surfaces, which can help them grow. Drugs that target this protein, such **cetuximab**

(Erbix), have been shown to shrink some of these cancers in early studies. Although the evidence for their use so far is limited, they might be helpful for some people.

Side effects of EGFR inhibitors can include:

- Skin problems
- Diarrhea
- Mouth sores
- Loss of appetite

Skin problems can include an acne-like rash on the face and chest, which in some cases can lead to skin infections.

More information about targeted therapy

To learn more about how targeted drugs are used to treat cancer, see [Targeted Cancer Therapy](#)¹.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)².

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy.html
2. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html

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Immunotherapy for Advanced Basal or Squamous Cell Skin Cancers

The immune system normally helps protect the body against germs, and it can also help destroy cancer cells. Immunotherapy is the use of medicines to stimulate a person's own immune system to recognize and destroy cancer cells more effectively. It can be used to treat some people with advanced basal or squamous cell skin cancer.

Immune checkpoint inhibitors

An important part of the immune system is its ability to keep itself from attacking normal cells. To do this, it uses “checkpoints”, which are proteins on immune cells that need to be turned on (or off) to start an immune response.

Cancer cells sometimes use these checkpoints to avoid being attacked by the immune system. But drugs that target checkpoint proteins, called **checkpoint inhibitors**, can help restore the immune response against cancer cells.

PD-1 inhibitors

Cemiplimab (Libtayo) and **pembrolizumab (Keytruda)** are drugs that target PD-1, a

checkpoint protein on T cells (a type of immune system cell) that normally helps keep these cells from attacking other cells in the body. By blocking PD-1, these drugs can boost the immune response against cancer cells.

These drugs are given as an intravenous (IV) infusion. Cemiplimab is typically given once every 3 weeks, while pembrolizumab can be given every 3 weeks or every 6 weeks.

These drugs haven't been studied in people with weakened immune systems, such as people who take medicines for autoimmune diseases or who have had an organ transplant, so the balance between benefits and risks in these people isn't clear.

For squamous cell skin cancer

Cemiplimab or pembrolizumab can be used to treat people with advanced squamous cell skin cancer that cannot be cured with [surgery](#) or [radiation therapy](#).

For basal cell skin cancer

Cemiplimab can be used to treat advanced basal cell skin cancer in people who are no longer being helped by (or cannot take) the [targeted drugs](#) called hedgehog pathway inhibitors.

Possible side effects

Common side effects of these drugs can include:

- Feeling tired
- Diarrhea
- Skin rash
- Nausea
- Constipation
- Bone or joint pain
- Loss of appetite

Other, more serious side effects occur less often:

Infusion reactions: Some people might have an infusion reaction while getting one of these drugs. This is like an allergic reaction, and can include fever, chills, flushing of the face, rash, itchy skin, wheezing, and trouble breathing.

Autoimmune reactions: These drugs work by basically removing one of the safeguards that keeps the immune system from attacking other parts of the body. This can sometimes lead to serious or even life-threatening problems in the lungs, intestines, liver, hormone-making glands, kidneys, or other organs.

It's very important to report any new side effects to your health care team right away. If serious side effects do occur, treatment may need to be stopped and you may get high doses of corticosteroids to suppress your immune system.

To learn more about this type of treatment, see [Immune Checkpoint Inhibitors to Treat Cancer](#)¹.

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/immunotherapy/immune-checkpoint-inhibitors.html

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Treating Basal Cell Carcinoma

Several types of treatment can be used to remove or destroy basal cell skin cancers. The options depend on factors such as the tumor size and location, and a person's age, general health, and preferences. These cancers very rarely spread to other parts of the body, although they can grow into nearby tissues if not treated.

All of the treatments listed here can be effective when used in appropriate situations. The chance of the cancer coming back (recurring) ranges from less than 5% after Mohs surgery to up to 15% or higher after some of the others, but this depends on the size of the tumor. Small tumors are less likely to recur than larger ones. Even if a tumor does recur, it can often still be treated effectively.

Surgery

Different types of [surgery](#) can be used to treat basal cell cancers.

Curettage and electrodesiccation: This is a common treatment for small basal cell carcinomas. It might need to be repeated to help make sure all of the cancer has been removed.

Excision: Excision (cutting the tumor out) is often used to remove basal cell carcinomas, along with a margin of normal skin.

Mohs surgery: Mohs surgery is especially useful in treating cancers that are at higher risk for coming back, such as large tumors, tumors where the edges are not well-defined, tumors in certain locations (such as on or near the nose, eyes, ears, forehead, scalp, fingers, and genital area), and those that have come back after other treatments. However, it's also usually more complex and time-consuming than other methods.

Radiation therapy

[Radiation therapy](#) is often a good option for treating patients who aren't able to have surgery and for treating tumors on the eyelids, nose, or ears – areas that can be hard to treat surgically – especially in older patients where cure may not be as important as control over the long term. Radiation is also sometimes used after surgery if it's not clear that all of the cancer has been removed.

Immune response modifiers, photodynamic therapy, or topical

chemotherapy

[These treatments](#) are sometimes options for treating very superficial tumors (tumors that have not grown too deeply into the skin). Close follow-up is needed because these treatments do not destroy any cancer cells that have grown deep below the surface.

Cryotherapy

[Cryotherapy](#) (cryosurgery) can be used for some small basal cell carcinomas, but it's not usually recommended for larger tumors or those on certain parts of the nose, ears, eyelids, scalp, or legs.

Cryotherapy can also be used to treat large tumors in one treatment session to relieve symptoms from the cancer. The site of treatment often takes a month or two to heal.

Targeted therapy or immunotherapy for advanced basal cell cancers

In rare cases where basal cell cancer spreads to other parts of the body or can't be cured with surgery or radiation therapy, a [targeted drug](#) such as vismodegib (Erivedge) or sonidegib (Odomzo) can often shrink or slow its growth.

If these drugs are no longer working (or if they can't be taken for some reason), the [immunotherapy](#) drug cemiplimab (Libtayo) can sometimes be helpful.

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Treating Squamous Cell Carcinoma of the Skin

Treatment options for squamous cell skin cancer depend on the risk of the cancer coming back, which is based on factors like the size and location of the tumor and how the cancer cells look under a microscope, as well as if a person has a weakened immune system.

Most squamous cell skin cancers are found and treated at an early stage, when they can be removed or destroyed with local treatment methods. Small squamous cell cancers can usually be cured with these treatments. Larger squamous cell cancers are harder to treat, and fast-growing cancers have a higher risk of coming back.

In rare cases, squamous cell cancers can spread to lymph nodes or distant parts of the body. If this happens, treatments such as radiation therapy, immunotherapy, and/or chemotherapy may be needed.

Surgery

Different types of [surgery](#) can be used to treat squamous cell skin cancers.

Excision: Cutting out the tumor, along with a small margin of normal skin, is often used to treat squamous cell cancers.

Curettage and electrodesiccation: This approach is sometimes useful in treating small (less than 1 cm across), thin squamous cell cancers, but it's not recommended for larger tumors.

Mohs surgery: Mohs surgery is especially useful for squamous cell cancers that pose a higher risk for coming back, such as tumors larger than 2 cm (about 4/5 inch) across or with poorly defined edges, cancers that have come back after other treatments, cancers that are spreading along nerves under the skin, and cancers on certain areas of the face or genital area. Mohs surgery might also be done after an excision if it didn't remove all of the cancer (if the surgical margins were positive). This approach is typically more complex and time-consuming than other types of surgery.

Radiation therapy

[Radiation therapy](#) is often a good option for patients with large cancers, especially in areas where surgery would be hard to do (such as the eyelids, ears, or nose), or for patients who can't have surgery. It's not often used as the first treatment for younger patients because of the possible risk of long-term problems.

Radiation is sometimes used after surgery (simple excision or lymph node dissection) if all of the cancer was not removed (if the surgical margins were positive), if nerves are involved, or if there is a chance that some cancer may still be left.

Radiation can also be used to treat cancers that have come back after surgery and have become too large or deep to be removed surgically.

Cryotherapy

[Cryotherapy](#) (cryosurgery) is used for some early squamous cell cancers, especially in people who can't have surgery, but is not recommended for larger invasive tumors or those on certain parts of the nose, ears, eyelids, scalp, or legs.

Treating advanced squamous cell cancers

Lymph node dissection: [Removing regional \(nearby\) lymph nodes](#) might be recommended for some squamous cell cancers that are very large or have grown deeply into the skin, as well as if the lymph nodes feel enlarged and/or hard. The

removed lymph nodes are looked at under a microscope to see if they contain cancer cells. Sometimes, radiation therapy might be recommended after surgery.

Immunotherapy: For advanced squamous cell cancers that can't be cured with surgery or radiation therapy, one option might be using an [immunotherapy](#) drug such as cemiplimab (Libtayo) or pembrolizumab (Keytruda). However, these drugs haven't been studied in people with weakened immune systems, such as people who take medicines for autoimmune diseases or who have had an organ transplant, so the balance between benefits and risks for these people isn't clear.

Systemic chemotherapy and/or targeted therapy: [Chemotherapy](#) and [targeted therapy drugs](#) (EGFR inhibitors) might be other options for patients with squamous cell cancer that has spread to lymph nodes or distant organs. These types of treatment might be combined or used separately.

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Treating Actinic Keratosis and Bowen Disease

Actinic keratosis

Actinic keratosis is usually considered to be a pre-cancer. It is often treated because it might turn into squamous cell skin cancer. But because this risk is low, treatments are generally aimed at avoiding scars or other disfiguring marks as much as possible.

Actinic keratosis is often treated with either [cryotherapy or topical creams or gels](#) such as fluorouracil (5-FU), imiquimod, or diclofenac. These treatments destroy the affected area of the epidermis, the outermost layer of the skin, which usually cures actinic keratosis.

[Other localized treatments](#) (photodynamic therapy, laser surgery, chemical peeling) or types of [surgery](#) (shave excision, curettage and electrodesiccation) are also sometimes used.

Bowen disease

Bowen disease (squamous cell carcinoma in situ) is usually treated by [excision](#) (cutting out the tumor). [Mohs surgery, curettage and electrodesiccation, radiation therapy, topical fluorouracil \(5-FU\)](#), and [cryosurgery](#) are other options. Laser surgery or other topical therapies may be considered in special situations.

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