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Treating Merkel Cell Skin Cancer

If you've been diagnosed with Merkel cell skin cancer (also known as Merkel cell carcinoma, or MCC), your cancer care team will discuss your treatment options with you. It's important to weigh the benefits of each treatment option against the possible risks and side effects.

How is Merkel cell skin cancer treated?

Based on the stage of the cancer and other factors, your treatment options might

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.

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 to relieve symptoms or treat your cancer that your doctors haven't mentioned. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

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 Cancer Knowledge Hub at 1-800-227-2345 and speak with one of our caring, trained cancer helpline specialists. Or, if you prefer, you can use our chat feature on cancer.org to connect with one of our specialists.

- [Palliative Care](#)
- [Programs & Services](#)

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 as 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.

Surgery for Merkel Cell Carcinoma

of surgery might be done, depending on each person's situation.

- [Surgery to diagnose or help stage the cancer](#)
- [Surgery to treat the cancer](#)
- [More information about Surgery](#)

Surgery to diagnose or help stage the cancer

Some sort of surgery is often needed to diagnose MCC or find out if it has spread.

In many cases, a **skin biopsy** is done to remove a suspicious spot even before the doctor suspects it might be MCC (see [Tests for Merkel cell carcinoma¹](#)). This can be thought of as a type of surgery, but it's not enough by itself to treat MCC. If MCC is diagnosed from a biopsy, a wide excision (described below) is used to remove more skin and other nearby tissues.

Wide excision

When a diagnosis of MCC is made by skin biopsy, more of the tumor site will most likely need to be cut out (excised) to help make sure the cancer has been removed completely. This surgery might cure MCC if it hasn't spread beyond the skin.

First, drugs to numb the area (local anesthesia) are put into the skin with a small needle (injected) before the excision. The surgeon then cuts out the tumor, along with some of the normal skin at the edges (including below the tumor). This normal, healthy skin around the edges of the tumor is called the **margin**. The skin is stitched back together afterward. This will leave a scar.

The removed tissue sample is then sent to a lab, where it's tested and checked with a microscope to make sure that no cancer cells are at the edges of the skin that was removed.

Wide excision differs from an [excisional biopsy](#)⁵ used to diagnose MCC. The margins are wider. This is because the diagnosis is already known, and the doctor is trying to be sure all of the cancer cells are removed.

The margins can also vary based on where the cancer is and other factors. For instance, if MCC is on the face, the margins may be smaller to avoid large scars or other problems. Smaller margins may increase the risk of the cancer coming back, so be sure to discuss the options with your doctor.

Amputation

In rare cases where the cancer is on a finger or toe and has grown deep into the skin, part or all of that digit might need to be removed (amputated).

Mohs micrographic surgery (MMS) and related techniques

Mohs surgery is sometimes used when the goal is to save as much healthy skin as possible, such as with cancers on the face or ears. It's done by a doctor with special training.

Using the [Mohs technique](#)⁶, the skin (including the tumor) is removed in very thin layers. Each layer is then quickly frozen and looked at with a microscope. If cancer cells are seen, another layer of skin is removed and examined. This is repeated until a layer shows no signs of cancer. This process is slow, often taking several hours, but it allows the doctor to save the normal skin near the tumor.

Mohs surgery is the most common type of **micrographic technique** (sometimes called **peripheral and deep en face margin assessment or PDEMA**), but there are others. Other techniques might differ slightly in how the surgery is done, how the tumor samples are processed, or how long the procedure might take. But they all allow the doctor to check the edges (margins) of the removed tumor sample and then remove more layers of tissue if needed.

Lymph node dissection

MCC often spreads to nearby lymph nodes. If cancer is found in the nearby lymph nodes (on a sentinel lymph node biopsy or any other type of biopsy), a lymph node dissection is often done.

In this operation, the surgeon removes all of the lymph nodes near the primary tumor. For instance, if the MCC is found on an arm, the surgeon would remove the underarm (axillary) lymph nodes on that side of the body. These nodes are where cancer cells would be most likely to travel first.

This type of surgery is done in an operating room, where medicines are used to put you into a deep sleep (general anesthesia). As with any major operation, complications can include reactions to anesthesia, bleeding, blood clots, and infections. Most people will have soreness or pain for some time after surgery. This can be helped with medicines, if needed.

A full lymph node dissection can cause some long-term side effects. One of the most troublesome is called **lymphedema**. Lymph nodes in the groin or under the arm normally help drain fluid from the limbs. If they are removed, fluid could build up. This can cause limb swelling, which may or may not go away. If it's severe enough, it can cause skin problems and an increased risk of infections in the limb. (A sentinel lymph node biopsy is less likely to cause this problem.) 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.

For more on this, see [Lymphedema](#)⁷.

Skin grafting and reconstructive surgery

After removing large skin tumors, it may not be possible to stretch the nearby skin enough to stitch the edges of the wound together. In these cases, healthy skin may be taken from another part of the body and grafted over the wound to help it heal and look better after surgery. Other reconstructive surgical procedures can also be helpful in

some cases.

More information about Surgery

For more general information about surgery as a treatment for cancer, see [Cancer Surgery](#)⁸.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)⁹.

Hyperlinks

1. www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/how-diagnosed.html
2. www.cancer.org/cancer/diagnosis-staging/lymph-nodes-and-cancer.html
3. www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/how-diagnosed.html
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8. www.cancer.org/cancer/managing-cancer/treatment-types/surgery.html
9. www.cancer.org/cancer/managing-cancer/side-effects.html

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Tai P, Nghiem PT, Park SY. Pathogenesis, clinical features, and diagnosis of Merkel

Radiation Therapy for Merkel Cell Carcinoma

other type of biopsy) found cancer in the lymph nodes, if the results of the biopsy were not clear, or if a biopsy wasn't done, radiation therapy is often given to the lymph nodes in the area. This might be done after a [lymph node dissection](#), or it might even be done instead of a lymph node dissection.

- To help treat MCC that has come back (recurred) after surgery, either in the skin or lymph nodes.
- To help treat MCC that has spread to distant parts of the body, often along with other treatments. In this case, the radiation is used to help shrink or slow the growth of the cancer and/or to help ease symptoms caused by its spread, but it's not expected to cure the cancer.

How is radiation therapy given for Merkel cell cancer (MCC)?

When used to treat MCC, radiation is usually given 5 days a week for many weeks. The length of treatment might be shorter if the radiation is being used to relieve symptoms caused by cancer spread.

Before treatments start, your radiation team will take careful measurements to decide the proper dose of radiation and know exactly where to aim. In this case, the radiation is used to help shrink or slow the growth of the cancer and/or to help ease symptoms caused by its spread, but it's not expected to cure the cancer.

More information about radiation therapy

To learn more about how radiation is used to treat cancer, see [Radiation Therapy](#)⁵.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)⁶.

Hyperlinks

1. www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/how-diagnosed.html
2. www.cancer.org/cancer/managing-cancer/side-effects/hair-skin-nails/hair-loss.html
3. www.cancer.org/cancer/managing-cancer/side-effects/fatigue.html
4. www.cancer.org/cancer/managing-cancer/side-effects/eating-problems/nausea-and-vomiting.html
5. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
6. www.cancer.org/cancer/managing-cancer/side-effects.html

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Chemotherapy for Merkel Cell Carcinoma

Chemotherapy (chemo) uses anti-cancer drugs that are most commonly given into a vein (IV) or given by mouth. These drugs travel through the bloodstream to all parts of the body. This makes chemo useful for treating cancers that have spread to other organs.

- [When is chemotherapy used for Merkel cell cancer \(MCC\)?](#)
- [Which chemo drugs are used to treat Merkel cell cancer \(MCC\)?](#)
- [Possible side effects of chemotherapy for Merkel cell cancer \(MCC\)](#)
- [More information about chemotherapy](#)

When is chemotherapy used for Merkel cell cancer (MCC)?

Chemo is most likely to be helpful for MCC that has spread to other organs. In the past, chemo was often the main treatment for MCC that had spread. But newer [immunotherapy](#) drugs tend to work better, so they are now more likely to be the first treatment for advanced cancers.

Chemo might still be used in some situations to treat advanced MCC, such as:

- If a person can't get immunotherapy for some reason.
- If the cancer is no longer responding to immunotherapy.

Which chemo drugs are used to treat Merkel cell cancer (MCC)?

Merkel cell carcinoma (MCC) is rare, so it's been hard to study the use of chemotherapy for MCC in clinical trials. Because of this, doctors often use chemo drugs that have been helpful in treating other types of fast-growing neuroendocrine tumors. The most commonly used drugs for MCCs that have spread include:

- Cisplatin

- Carboplatin
- Etoposide
- Topotecan

Most often, either cisplatin or carboplatin is used, often along with etoposide. Topotecan by itself tends to have fewer serious side effects, so it might be a better option for some people who are older or have serious health problems.

Another combination of drugs that may be used is called CAV, which includes cyclophosphamide, doxorubicin (Adriamycin), and vincristine.

These drugs are given intravenously (IV or into a vein), usually once every few weeks. They can often shrink MCC tumors for a time (or at least slow their growth and spread) and help relieve some symptoms. But after a while the cancer tends to start growing

More information about chemotherapy

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Immunotherapy for Merkel Cell Carcinoma

Immunotherapy is the use of medicines that help a person's own immune system find and destroy cancer cells. This is often a useful form of treatment for Merkel cell carcinoma (MCC), especially if it has spread to other parts of the body.

- [Immune checkpoint inhibitors](#)
- [Possible side effects of immunotherapy for Merkel cell cancer \(MCC\)](#)
- [More information about immunotherapy](#)

Immune checkpoint inhibitors

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

Cancer cells sometimes use these checkpoints to keep the immune system from attacking them. But drugs that target checkpoint proteins, called **checkpoint inhibitors**, can help the immune system find and attack cancer cells.

PD-1 and PD-L1 inhibitors

PD-1 is a checkpoint protein on immune cells called **T cells**. It normally helps keep the T cells from attacking other cells in the body. When it attaches to PD-L1, a protein on some normal (and cancer) cells, it basically tells the T cell to leave the other cell alone. Some cancer cells have large amounts of PD-L1, which helps keep the immune system from attacking them.

Drugs that block either PD-1 or PD-L1 can stop this binding and boost the body's immune response against cancer cells. Examples of checkpoint inhibitors that can be used to treat MCC include:

- **Avelumab (Bavencio)**, which targets PD-L1
- **Pembrolizumab (Keytruda), retifanlimab (Zynyz), and nivolumab (Opdivo)**, which block PD-1

These drugs are given as an infusion into a vein (IV), usually every 2 to 6 weeks, depending on the drug.

These drugs can often shrink or slow the growth of advanced MCC tumors. Doctors are now studying the use of these drugs for some earlier-stage MCCs as well. For example, they are testing to see if these drugs might be useful after, or even before, surgery in some people.

Other immune checkpoint inhibitors are being studied for use against MCC as well.

Possible side effects of immunotherapy for Merkel cell cancer (MCC)

Side effects of these types of drugs can include:

- Fatigue
- Cough
- Nausea
- Rash or itchy skin
- Joint pain
- Loss of appetite
- Diarrhea
- Constipation

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. It can include fever, chills, flushing of the face, rash, itchy skin, wheezing, and trouble breathing. It's important to tell your doctor or nurse right away if you have any of these symptoms while getting these drugs.

Autoimmune reactions: These drugs work by removing one of the safeguards that helps keep the body's immune system in check. Sometimes this can lead to the immune system attacking other parts of the body, which can cause 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 changes or new side effects to your health care team right away. If serious side effects do occur, you might need to stop treatment.

More information about immunotherapy

To learn more about how drugs that work on the immune system are used to treat cancer, see [Cancer Immunotherapy](#)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/cancer/managing-cancer/treatment-types/immunotherapy.html
2. www.cancer.org/cancer/managing-cancer/side-effects.html

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Treating Merkel Cell Carcinoma Based on the Extent of the Cancer

Treatment depends mainly on how far the cancer has spread, so having the right tests done to determine the extent of the cancer (such as a sentinel lymph node biopsy or imaging tests like CT, MRI, or PET/CT scans) is very important.

Other factors, such as the location of the tumor and your age and overall health, might also affect your treatment options.

- [Merkel cell cancer \(MCC\) with no obvious spread to the lymph nodes \(or elsewhere\)](#)
- [Merkel cell cancer \(MCC\) that has spread to nearby lymph nodes](#)
- [Merkel cell cancer \(MCC\) that has spread to other parts of the body](#)
- [Merkel cell cancer \(MCC\) that comes back \(recurs\) after initial treatment](#)

Merkel cell carcinoma (MCC) isn't common, so it has been hard for doctors to study how best to treat this cancer. This is why it's important to have a team of doctors, who can discuss which treatment options are likely to be best for you.

Merkel cell cancer (MCC) with no obvious spread to the lymph nodes (or elsewhere)

These cancers are thought to be confined to the skin, based on physical exams and imaging tests. Once MCC has been diagnosed, a [sentinel lymph biopsy \(SLNB\)](#)¹ is usually done first to see if small amounts of cancer have reached the nodes.

After the SLNB, [surgery](#) (usually wide local excision) is done on the skin to try to remove all of the cancer. If the cancer is in a place where it would be hard to remove it with a wide margin (edge) of normal skin, Mohs micrographic surgery might be used. [Radiation therapy](#) might be another option instead of surgery for some people.

If it's not clear that the main tumor can be removed completely, one option might be to get [immunotherapy](#) first to try to shrink the tumor and make surgery easier.

Within a few weeks after surgery, radiation might be given to the site where the tumor was removed. This is more likely if the doctor thinks there's a higher risk of the cancer

get [immunotherapy](#) first to try to shrink the tumor and make surgery easier.

Within a few weeks after surgery, [radiation therapy](#) is often given to the site where the tumor was removed, especially if there is a higher risk of the cancer coming back (such as if the main tumor was large or in the head and neck area, if a person has a suppressed immune system, or if the doctor is not sure if it was removed completely).

Lymph nodes that contain cancer cells need to be treated as well. Options might include [lymph node dissection](#) to remove them, radiation therapy, or lymph node dissection followed by radiation therapy. (If radiation therapy is being given to the main tumor, the radiation to the lymph nodes is typically given at the same time.)

Merkel cell cancer (MCC) that has spread to other parts of the body

If MCC has spread to other parts of the body, treatment can often help control the cancer and ease symptoms, but these cancers are very hard to get rid of completely. Not all doctors agree on the best way to treat these cancers, so if time permits it's often a good idea to get a [second opinion](#)² from a team of experts.

Treatment options might include [surgery](#), [radiation therapy](#), [immunotherapy](#), [chemotherapy](#), or some combination of these. The benefits of each treatment need to be weighed against the side effects they might cause. Be sure you understand the goal of each treatment and its possible downsides before starting treatment.

Treatment with one of the [immunotherapy](#) drugs known as checkpoint inhibitors can often shrink MCC tumors. These drugs also tend to have fewer side effects than standard chemo, although sometimes the side effects from these drugs can be serious.

[Chemotherapy](#) might be another option, especially if immunotherapy can't be used or is no longer working. MCC often shrinks in response to chemo at first, but it usually starts growing again at some point. Chemo can also have side effects that need to be taken into account.

Because these cancers can be very hard to treat with current therapies, people with MCC may want to think about taking part in a [clinical trial](#)³. Studies are now looking at new drugs and combinations of different types of treatments. (See [What's New in Merkel Cell Carcinoma Research?](#)⁴)

Merkel cell cancer (MCC) that comes back (recurs) after initial treatment

If MCC [comes back after treatment](#)⁵, further treatment depends on where it comes back and what types of treatment were used before.

If the cancer comes back on the skin where it first started, [surgery](#) (with wider margins) can often be done to try to remove it. This might be followed by [radiation therapy](#) to the area if it hasn't been given before. If surgery can't be done, radiation therapy might be an option. If the nearby lymph nodes haven't been treated, they might be removed and/or treated with radiation as well. Some doctors might consider giving [immunotherapy](#) as well, but it's not clear how helpful this might be.

If the cancer comes back in the nearby lymph nodes and they haven't been treated before, they might be removed and/or treated with radiation. Some doctors might consider giving immunotherapy too, but, again, it's not clear how helpful this is.

Cancers that come back in distant parts of the body can be hard to treat. Surgery and/or radiation therapy might be used, but the goal is usually to ease symptoms rather than try to cure the cancer. Treatment with an [immunotherapy](#) drug might be helpful against some advanced MCCs. Chemotherapy might be another option, especially if immunotherapy can't be used or isn't helpful. Chemo can often shrink or slow the growth of the cancer for a time and can help relieve symptoms. But chemo can also cause side effects that need to be taken into account.

The benefits of each treatment need to be weighed against the side effects they might cause. Be sure you understand the goal of each treatment and its possible downsides before starting treatment.

Because these cancers can be hard to treat, people with MCC might want to think about taking part in a [clinical trial](#)⁶. Studies are now looking at new drugs and combinations of different types of treatments (see [What's New in Merkel Cell Carcinoma Research?](#)⁷).

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4. www.cancer.org/cancer/types/merkel-cell-skin-cancer/about/research.html
5. www.cancer.org/cancer/survivorship/long-term-health-concerns/recurrence.html
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