

---

## About Merkel Cell Skin Cancer

Get an overview of Merkel cell carcinoma and the latest key statistics in the US.

### Overview

If you've been diagnosed with Merkel cell carcinoma or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start.

- [What Is Merkel Cell Carcinoma \(MCC\)?](#)

### Research and Statistics

See the latest estimates for new cases of Merkel cell carcinoma in the US and what research is currently being done.

- [Key Statistics for Merkel Cell Carcinoma](#)
- [What's New in Merkel Cell Carcinoma \(MCC\) Research?](#)

---

## What Is Merkel Cell Carcinoma (MCC)?

Merkel cell carcinoma (MCC) is a rare type of skin cancer. Merkel cells are thought to be a type of skin **neuroendocrine cell**, because they share some features with nerve cells and hormone-making cells. Merkel cells are very close to nerve endings in the skin. They help us sense light touch, which lets us do things like feel the fine details on an object's surface.

- [Merkel cell carcinoma \(MCC\)](#)
- [Other types of skin cancer](#)

### [What Is Cancer?](#) <sup>1</sup>

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer cells. Learn more here.

### [Anatomy Gallery: Skin](#) <sup>2</sup>

Explore our 3D interactive tour of the skin system.

## **Merkel cell carcinoma (MCC)**

Merkel cell skin cancer (carcinoma) starts when the Merkel cells in the skin start to grow out of control. It tends to grow quickly and can spread to other parts of the body.

Merkel cell carcinoma is also sometimes called **neuroendocrine carcinoma of the skin**. Another name for MCC is **trabecular carcinoma** (or trabecular cancer).

MCC is much less common than most other types of skin cancer, but it's one of the most dangerous types. It's much more likely than common skin cancers (squamous and basal cell skin cancers) to spread to other parts of the body, and it can be hard to treat if it has spread.

Merkel cell carcinomas can start anywhere on the skin, but most often they start on skin that's exposed to the sun, like the face (the most common site), neck, and arms. A very small portion start in other parts of the body, such as inside the nose or esophagus.

Merkel cell tumors often look like firm, pink, red, or purple lumps or bumps on the skin. They usually don't hurt, but they tend to grow quickly and can sometimes open up as ulcers or sores (see [Signs and Symptoms of Merkel Cell Carcinoma](#)<sup>3</sup>).

## **Other types of skin cancer**

There are other, more common skin cancers. For more on these types of cancers, see [Basal and Squamous Cell Skin Cancer](#)<sup>4</sup> and [Melanoma Skin Cancer](#)<sup>5</sup>.

## **Less common types of skin cancer**

Other, much less common types of skin cancer include:

- [Kaposi sarcoma](#)<sup>6</sup>
- [Lymphoma of the skin](#)<sup>7</sup>
- Skin adnexal tumors (tumors that start in the hair follicles or glands on the skin, such as sweat glands)
- Various types of [sarcomas](#)<sup>8</sup>

## Hyperlinks

1. [www.cancer.org/cancer/understanding-cancer/what-is-cancer.html](http://www.cancer.org/cancer/understanding-cancer/what-is-cancer.html)
2. [www.cancer.org/cancer/understanding-cancer/anatomy-gallery/skin.html](http://www.cancer.org/cancer/understanding-cancer/anatomy-gallery/skin.html)
3. [www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/signs-and-symptoms.html](http://www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/signs-and-symptoms.html)
4. [www.cancer.org/cancer/types/basal-and-squamous-cell-skin-cancer.html](http://www.cancer.org/cancer/types/basal-and-squamous-cell-skin-cancer.html)
5. [www.cancer.org/cancer/types/melanoma-skin-cancer.html](http://www.cancer.org/cancer/types/melanoma-skin-cancer.html)
6. [www.cancer.org/cancer/types/kaposi-sarcoma.html](http://www.cancer.org/cancer/types/kaposi-sarcoma.html)
7. [www.cancer.org/cancer/types/skin-lymphoma.html](http://www.cancer.org/cancer/types/skin-lymphoma.html)
8. [www.cancer.org/cancer/types/soft-tissue-sarcoma.html](http://www.cancer.org/cancer/types/soft-tissue-sarcoma.html)

## References

National Cancer Institute. Merkel Cell Carcinoma Treatment (PDQ®)—Patient Version. 2021. Accessed at <https://www.cancer.gov/types/skin/patient/merkel-cell-treatment-pdq> on November 18, 2024.

National Comprehensive Cancer Network, Clinical Practice Guidelines in Oncology (NCCN Guidelines®): Merkel Cell Carcinoma. Version 1. 2024. Accessed at [www.nccn.org](http://www.nccn.org) on November 18, 2024.

Tai P, Nghiem PT, Park SY. Pathogenesis, clinical features, and diagnosis of Merkel cell (neuroendocrine) carcinoma. UpToDate. 2024. Accessed at <https://www.uptodate.com/contents/pathogenesis-clinical-features-and-diagnosis-of-merkel-cell-neuroendocrine-carcinoma> on November 18, 2024.

Xu YG, Aylward JL, Swanson AM, et al. Chapter 67: Nonmelanoma Skin Cancers. In: Niederhuber JE, Armitage JO, Doroshow JH, Kastan MB, Tepper JE, eds. *Abeloff's Clinical Oncology*. 6th ed. Philadelphia, Pa. Elsevier: 2019.  
Last Revised: January 10, 2025

# Key Statistics for Merkel Cell Carcinoma

Skin cancer is by far the most common type of cancer in the United States. [Merkel cell carcinoma](#) (MCC) is a type of skin cancer, but it's not common. About 3,000 people are diagnosed with Merkel cell carcinoma in the United States each year.

The number of people diagnosed with Merkel cell carcinoma each year has been rising quickly over the past few decades. This is in part because of an increased awareness of this cancer, but it might also be due to an increase in risk factors. For instance, people are living longer, and more people are living with weakened immune systems (from previous treatment for cancer or other medical conditions).

- Most Americans diagnosed with Merkel cell carcinoma are older than age 70.
- Men are more likely to have MCC than women.
- More than 9 out of 10 Americans diagnosed with Merkel cell carcinoma are White people.

For survival statistics, see [Survival Rates for Merkel Cell Carcinoma](#)<sup>1</sup>.

Visit the American Cancer Society's [Cancer Statistics Center](#)<sup>2</sup> for more key statistics.

## Hyperlinks

1. [www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/survival-rates.html](http://www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/survival-rates.html)
2. [cancerstatisticscenter.cancer.org/](http://cancerstatisticscenter.cancer.org/)

## References

**National Cancer Institute. Merkel Cell Carcinoma Treatment (PDQ)—Health Professional Version. 2024. Accessed at <https://www.cancer.gov/types/skin/hp/merkel-cell-treatment-pdq> on May 28, 2024.**

Paulson KG, Park SY, Vandeven NA, Lachance K, et al. Merkel cell carcinoma: Current US incidence and projected increases based on changing demographics. *J Am Acad Dermatol*. 2018;78(3):457.

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

cell (neuroendocrine) carcinoma. UpToDate. 2024. Accessed at <https://www.uptodate.com/contents/pathogenesis-clinical-features-and-diagnosis-of-merkel-cell-neuroendocrine-carcinoma> on November 18, 2024.

Last Revised: January 10, 2025

## What's New in Merkel Cell Carcinoma (MCC) Research?

Because Merkel cell carcinoma (MCC) isn't common, it's been hard to study. But research into the causes, prevention, diagnosis, and treatment of Merkel cell carcinoma (MCC) is being done in medical centers throughout the world.

- [Research into what causes Merkel cell carcinoma](#)
- [Research into the prevention and early detection of Merkel cell carcinoma](#)
- [Research into the treatment of Merkel cell carcinoma](#)

### Research into what causes Merkel cell carcinoma

Researchers are learning more about the Merkel cell polyomavirus (MCV), which is found in most Merkel cell tumors. They are studying the link between this common virus and this uncommon type of tumor, including whether the presence or absence of this virus should result in different treatments.

It's not yet clear exactly how damage from UV light, infection with MCV, and changes in the body's immune system might interact to cause this type of skin cancer, but this is an active area of research.

### Research into the prevention and early detection of Merkel cell carcinoma

Most skin cancers, including many Merkel cell carcinomas, can be [prevented](#)<sup>1</sup> if people limit their exposure to ultraviolet (UV) rays.

The best way to lower the number of skin cancers is to educate the public about [skin](#)

[cancer risk factors](#)<sup>2</sup> and [warning signs](#)<sup>3</sup>. It's important for health care professionals and skin cancer survivors to remind others about the dangers of too much UV exposure (both from the sun and from man-made sources like tanning beds) and about how easy it can be to protect your skin from UV rays.

[MCC can often be found early](#)<sup>4</sup>, when it is small and hasn't spread, and when treatment is most likely to be effective. Monthly skin self-exams and awareness of the warning signs of Merkel cell carcinomas and other skin cancers can be helpful in finding them early.

The American Academy of Dermatology (AAD) sponsors annual free skin cancer screenings throughout the country. Many local American Cancer Society offices work closely with AAD to provide volunteers for registration, coordination, and education efforts related to these free screenings. Look for information in your area about these screenings or call the [American Academy of Dermatology](#)<sup>5</sup> for more information.

## Research into the treatment of Merkel cell carcinoma

Early-stage MCCs often can be cured, but more advanced MCCs tend to be much harder to treat. It's also been hard to study the best way to treat these cancers because they're not common. But in recent years, doctors have begun to look at newer types of treatment.

### Immunotherapy

This type of treatment helps a person's immune system attack cancer cells more effectively. It has been hoped that this approach might be useful against MCC, especially because some of these cancers appear to be linked to infection with the Merkel cell polyomavirus (MCV).

**Immune checkpoint inhibitors:** In recent years, immunotherapy drugs known as [checkpoint inhibitors](#)<sup>6</sup>, such as pembrolizumab, retifanlimab, avelumab, and nivolumab, have been approved for treating advanced MCC.

Research is being done to see if these drugs might be helpful if given earlier in the course of the disease. For example, studies are looking at if giving one of these drugs after surgery and/or radiation (known as **adjuvant treatment**) might lower the risk of the cancer coming back. Doctors are also looking at giving them before surgery (known as **neoadjuvant treatment**) to try to shrink the cancer and make it easier to remove.

**Oncolytic virus therapy:** Viruses are a type of germ that can infect and kill cells. Some

viruses can be altered in the lab so that they infect and kill mainly cancer cells. These are known as **oncolytic viruses**. Along with killing the cells directly, the viruses can also alert the immune system to attack the cancer cells.

Talimogene laherparepvec (Imlygic), also known as T-VEC, is an oncolytic virus that can be injected directly into tumors. This treatment is already used to treat some melanomas of the skin, and it's now being studied for use against MCC as well.

### **Hormone-like drugs**

Merkel cell carcinoma is a type of neuroendocrine tumor, which means its cells share features with cells that normally make hormones in the body. Testing is being done to see if drugs that affect hormone-making cells might be helpful against MCC.

One example is a group of drugs known as **somatostatin analogs**, such as octreotide and lanreotide. These drugs have shrunk some MCC tumors in early clinical trials.

Another drug being studied is **lutetium Lu-177 dotatate (Lutathera)**. This is a drug linked to a radioactive element. It works by attaching to the somatostatin receptor on cancer cells, allowing radiation to enter the cells and cause damage.

Studies testing these types of drugs against MCC are now under way.

### **Targeted therapy drugs**

Drugs called **targeted therapies** are also being studied to see if they can help treat MCC. Targeted drugs attack parts of cancer cells that make them different from normal cells. Each type of targeted drug works differently, but they all alter the way a cancer cell grows, divides, repairs itself, or interacts with other cells.

Targeted drugs are already used to treat many types of cancer, and many are now being studied for use against MCC.

### **Combining treatments**

Studies are looking at treatment combinations that might work better against MCC, especially for cancers that no longer respond to the usual treatments. For example, several studies are looking at combining immunotherapy and chemotherapy drugs.

[Skin Cancer ACS Research Highlights](#) <sup>7</sup>

See latest examples of how the Society conducts & funds research to help prevent, find,

diagnose, treat, and live with skin cancers.

## Hyperlinks

1. [www.cancer.org/cancer/types/merkel-cell-skin-cancer/causes-risks-prevention/prevention.html](https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/causes-risks-prevention/prevention.html)
2. [www.cancer.org/cancer/types/merkel-cell-skin-cancer/causes-risks-prevention/risk-factors.html](https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/causes-risks-prevention/risk-factors.html)
3. [www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/signs-and-symptoms.html](https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/signs-and-symptoms.html)
4. [www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/finding-merkel-cell-early.html](https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/finding-merkel-cell-early.html)
5. [www.aad.org/](https://www.aad.org/)
6. [www.cancer.org/cancer/types/merkel-cell-skin-cancer/treating/immunotherapy.html](https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/treating/immunotherapy.html)
7. [www.cancer.org/research/acs-research-highlights/skin-cancer-research-highlights.html](https://www.cancer.org/research/acs-research-highlights/skin-cancer-research-highlights.html)

## References

National Cancer Institute. Merkel Cell Carcinoma Treatment (PDQ)—Health Professional Version. 2024. Accessed at <https://www.cancer.gov/types/skin/hp/merkel-cell-treatment-pdq> on November 18, 2024.

National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines): Merkel Cell Carcinoma. Version 1.2024. Accessed at <https://www.nccn.org> on November 18, 2024.

Park SY, Nghiem PT, Tai P, Silk AW. Treatment of recurrent and metastatic Merkel cell carcinoma. UpToDate. 2024. Accessed at <https://www.uptodate.com/contents/treatment-of-recurrent-and-metastatic-merkel-cell-carcinoma> on November 18, 2024.

Tai P, Nghiem PT, Park SY. Pathogenesis, clinical features, and diagnosis of Merkel cell (neuroendocrine) carcinoma. UpToDate. 2024. Accessed at <https://www.uptodate.com/contents/pathogenesis-clinical-features-and-diagnosis-of-merkel-cell-neuroendocrine-carcinoma> on November 18, 2024.

Tai P, Park SY, Nghiem PT, Silk AW. Staging, treatment, and surveillance of



locoregional Merkel cell carcinoma. UpToDate. 2024. Accessed at <https://www.uptodate.com/contents/staging-treatment-and-surveillance-of-locoregional-merkel-cell-carcinoma> on November 18, 2024.

Last Revised: January 10, 2025

### Written by

American Cancer Society medical and editorial content team  
(<https://www.cancer.org/cancer/acs-medical-content-and-news-staff.html>)

Developed by the with medical review and contribution by the American Society of Clinical Oncology (ASCO).

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy ([www.cancer.org/about-us/policies/content-usage.html](http://www.cancer.org/about-us/policies/content-usage.html)).

**cancer.org | 1.800.227.2345**