



[cancer.org](https://www.cancer.org) | 1.800.227.2345

---

# About Merkel Cell Skin Cancer

## 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?](#)

## 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 Research?](#)
- 

# What Is Merkel Cell Carcinoma?

Cancer starts when cells begin to grow out of control. Cells in nearly any part of the body can become cancer, and can then spread to other parts of the body. To learn more see [What Is Cancer?](#)<sup>1</sup>

Merkel cell carcinoma (MCC) is a rare type of skin cancer. It starts when cells in the skin called Merkel cells start to grow out of control. MCC tends to grow quickly and can be hard to treat if it spreads beyond the skin.

## Merkel cells

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 found mainly at the base of the top layer of the skin (the epidermis). These 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 cells were first described in the late 1800s by a German doctor named Friedrich Merkel.

## Merkel cell carcinoma

Because Merkel cells are a type of neuroendocrine cell, Merkel cell carcinoma (MCC) 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 (see below), but it's one of the most dangerous types. (The other dangerous skin cancer is melanoma.) 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 very hard to treat if it has spread.

These cancers most often start on skin that's exposed to the sun, like the face (the most common site), neck, and arms. But MCC can start anywhere on the body. Merkel cell tumors often look like firm, pink, red, or purple lumps or bumps on the skin. They usually don't hurt, but they're fast-growing and can sometimes open up as ulcers or sores (see [Signs and Symptoms of Merkel Cell Carcinoma<sup>2</sup>](#)).

Nearly all MCCs start on the skin, but a very small portion start in other parts of the body, such as inside the nose or esophagus.

## 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>3</sup>](#) and [Melanoma Skin Cancer<sup>4</sup>](#).

## Less common types of skin cancer

Other, much less common types of skin cancer include:

- [Kaposi sarcoma](#)<sup>5</sup>
- [Lymphoma of the skin](#)<sup>6</sup>
- Skin adnexal tumors (tumors that start in the hair follicles or skin glands)
- Various types of [sarcomas](#)<sup>7</sup>

## Hyperlinks

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

## References

See all references for Merkel Cell Skin Cancer ([www.cancer.org/cancer/merkel-cell-skin-cancer/references.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/references.html))

Merkelcell.org. Seattle Multidisciplinary MCC Team, University of Washington MCC Research, Fred Hutchinson Cancer Research Center, and the Seattle Cancer Care Alliance/Skin Cancer. What is a Merkel cell? Accessed at [www.merkelcell.org/about-mcc/what-is-a-merkel-cell/](http://www.merkelcell.org/about-mcc/what-is-a-merkel-cell/) on July 28, 2018.

National Cancer Institute. Merkel Cell Carcinoma Treatment (PDQ®)—Patient Version. May 2, 2018. Accessed at [www.cancer.gov/types/skin/patient/merkel-cell-treatment-pdq](http://www.cancer.gov/types/skin/patient/merkel-cell-treatment-pdq) on July 23, 2018.

National Comprehensive Cancer Network, Clinical Practice Guidelines in Oncology (NCCN Guidelines®), Merkel Cell Carcinoma, Version 2.2018 -- June 15, 2018. Accessed at [www.nccn.org/professionals/physician\\_gls/pdf/mcc.pdf](http://www.nccn.org/professionals/physician_gls/pdf/mcc.pdf) on July 23, 2018.

Last Revised: October 9, 2018

# 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 2,000 cases of MCC are diagnosed in the United States each year.

But the number of people diagnosed with MCC each year has been rising quickly over the past few decades. Some of this is probably because lab tests to diagnose these cancers have become more accurate. But the rise in MCC might also be caused by increases in [risk factors](#)<sup>1</sup>. For instance, people are living longer, and more people are living with weakened immune systems.

More than 4 out of 5 Americans diagnosed with MCC are older than age 70. And men are nearly 2-times more likely to have it compared with women.

MCC is much more common in white people than in people of other races. More than 9 out of 10 cases of MCC in the United States are diagnosed in whites.

For survival statistics, see [Survival Rates for Merkel Cell Carcinoma](#)<sup>2</sup>.

Visit the American Cancer Society's [Cancer Statistics Center](#)<sup>3</sup> for more key statistics.

## Hyperlinks

1. [www.cancer.org/cancer/merkel-cell-skin-cancer/causes-risks-prevention/risk-factors.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/causes-risks-prevention/risk-factors.html)
2. [www.cancer.org/cancer/merkel-cell-skin-cancer/detection-diagnosis-staging/survival-rates.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/detection-diagnosis-staging/survival-rates.html)
3. [cancerstatisticscenter.cancer.org/](http://cancerstatisticscenter.cancer.org/)

## References

Brady M, Spiker AM. Cancer, Skin, Merkel Cell. [Updated 2017 Dec 22]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2018 Jan.

Merkelcell.org. Seattle Multidisciplinary MCC Team, University of Washington MCC Research, Fred Hutchinson Cancer Research Center, and the Seattle Cancer Care Alliance/Skin Cancer. What is Merkel cell carcinoma? Accessed at [www.merkelcell.org/about-mcc/what-is-merkel-cell-carcinoma/](http://www.merkelcell.org/about-mcc/what-is-merkel-cell-carcinoma/) on July 23, 2018.

Tetzlaff MT, Nagarajan P. Update on Merkel Cell Carcinoma. *Head Neck Pathol.* 2018;12(1):31-43.

See all references for Merkel Cell Skin Cancer ([www.cancer.org/cancer/merkel-cell-skin-cancer/references.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/references.html))

Last Revised: October 9, 2018

---

## What's New in Merkel Cell Carcinoma Research?

Because Merkel cell carcinoma (MCC) is very rare, it's been hard to study it well. Most experts agree that treatment in a clinical trial should be considered for any type or stage of MCC. This way people can get the best treatment available now and may also get the treatments that are thought to be even better. The new and promising treatments discussed here are only available in clinical trials.

### Causes of MCC

Researchers are learning more about the Merkel cell polyomavirus (MCV), which is found in most MCC tumors. 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 MCC, but this is an active area of research.

### Prevention and early detection of MCC

Most skin cancers, including many MCCs, can be [prevented](#)<sup>1</sup>. The best way to lower the number of skin cancers is to educate the public, especially parents, 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](#)<sup>4</sup> (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](#)<sup>5</sup>.

[MCC can often be found early](#)<sup>6</sup>, when small, hasn't spread, and is most likely to be cured. Monthly skin self-exams and awareness of the warning signs of MCCs 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>7</sup> for more information.

## Treatment

While early-stage MCCs often can be cured, more advanced MCCs tend to be much harder to treat. It's been hard to study the best way to treat these cancers because they're so rare. But in recent years, doctors have begun to look at newer types of treatment for this disease.

### Immunotherapy

This type of treatment helps the body's immune system attack cancer cells more effectively. Doctors have been hopeful that this approach might be useful against MCC, especially because this cancer appears to be linked to infection with a virus (MCV). And in recent years, certain immunotherapy drugs have been approved for treating MCC. Still, researchers are looking for other drugs that work with the immune system in different ways. They're also looking for better ways to use the immunotherapies available today.

**Autologous T cell therapy:** In this approach, immune cells called T cells are removed from a person's blood, taken to the lab, and exposed to parts of the Merkel cell polyomavirus and chemicals that help activate the T cells. The cells are then infused back into the person's body. The hope is that these reengineered cells will now seek out and attack MCC cells. This approach is still in early phases of testing.

### Hormone-like drugs

MCC is a type of neuroendocrine tumor, which means its cells share features with cells that normally make hormones in the body. Doctors are testing whether drugs that affect hormone-making cells might be helpful against MCC. One example is lanreotide which is part of a group of drugs known as somatostatin analogs. Research testing these types of drugs against MCC is still in very early phases.

### Targeted therapy

Newer drugs called targeted therapies may someday be shown to help treat MCC. Targeted therapies attack parts of cancer cells that make them different from normal cells. Each type of targeted therapy 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 that no longer responds to the usual treatments. New drug combos and new ways to use radiation with chemo and/or immunotherapy are active areas of research.

### ***[Skin Cancer ACS Research Highlights<sup>8</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/merkel-cell-skin-cancer/causes-risks-prevention/prevention.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/causes-risks-prevention/prevention.html)
2. [www.cancer.org/cancer/merkel-cell-skin-cancer/causes-risks-prevention/risk-factors.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/causes-risks-prevention/risk-factors.html)
3. [www.cancer.org/cancer/merkel-cell-skin-cancer/detection-diagnosis-staging/signs-and-symptoms.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/detection-diagnosis-staging/signs-and-symptoms.html)
4. [www.cancer.org/cancer/cancer-causes/radiation-exposure/uv-radiation.html](http://www.cancer.org/cancer/cancer-causes/radiation-exposure/uv-radiation.html)
5. [www.cancer.org/healthy/be-safe-in-sun.html](http://www.cancer.org/healthy/be-safe-in-sun.html)
6. [www.cancer.org/cancer/merkel-cell-skin-cancer/detection-diagnosis-staging/finding-merkel-cell-early.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/detection-diagnosis-staging/finding-merkel-cell-early.html)
7. [www.aad.org/](http://www.aad.org/)
8. [www.cancer.org/research/acs-research-highlights/skin-cancer-research-highlights.html](http://www.cancer.org/research/acs-research-highlights/skin-cancer-research-highlights.html)

### **References**

See all references for Merkel Cell Skin Cancer ([www.cancer.org/cancer/merkel-cell-skin-cancer/references.html](http://www.cancer.org/cancer/merkel-cell-skin-cancer/references.html))

American Society of Clinical Oncology. Neuroendocrine Tumor: Latest Research. 11/2016. Accessed at [www.cancer.net/cancer-types/neuroendocrine-tumor/latest-research](http://www.cancer.net/cancer-types/neuroendocrine-tumor/latest-research) on September 21, 2018.

Chan IS, Bhatia S, Kaufman HL, Lipson EJ. Immunotherapy for Merkel cell carcinoma: a turning point in patient care. *J Immunother Cancer*. 2018;6(1):23.

Tello TL, Coggshall K, Yom SS, Yu SS. Merkel cell carcinoma: An update and review: Current and future therapy. *J Am Acad Dermatol*. 2018;78(3):445-454.

Voelker R. Why Merkel Cell Cancer Is Garnering More Attention. *JAMA*. 2018;320(1):18-20.

Last Revised: October 9, 2018

### Written by

The American Cancer Society medical and editorial content team  
([www.cancer.org/cancer/acs-medical-content-and-news-staff.html](http://www.cancer.org/cancer/acs-medical-content-and-news-staff.html))

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

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**