



Merkel Cell Carcinoma(MCC)

**MEDICAL INFORMATION FOR
PATIENTS AND CAREGIVERS**

To learn more about MCC, visit our
US Patient & Caregiver Medical
Website by scanning this QR code
with your phone or tablet



Merkel Cell Carcinoma Topics



What is Merkel Cell Carcinoma?

Merkel cell carcinoma (MCC) is a rare, aggressive form of skin cancer with a high risk for returning and spreading, often within two to three years after initial diagnosis.^{1,2}



How to Spot MCC?

MCCs can progress rapidly¹ and become more difficult to treat; it's crucial to understand your risks and warning signs.



Stages and Survival

Determining the size of the tumor and whether it has spread (the stage) is crucial to predicting a patient's potential outcome and the most appropriate treatment options.



Causes and Prevention

MCC doesn't appear to be inherited, and the DNA changes that cause it are sometimes due to factors like sun exposure and Merkel cell polyomavirus (**MCPyV**) infection among others.³



Diagnostic Tests

MCC is identified due to visible signs or symptoms. If there is an area of concern, the doctor will conduct tests to determine if it's cancer or another skin issue.



Treatment Options

A patient's treatment options are largely dependent on whether the cancer has spread to other parts of the body.





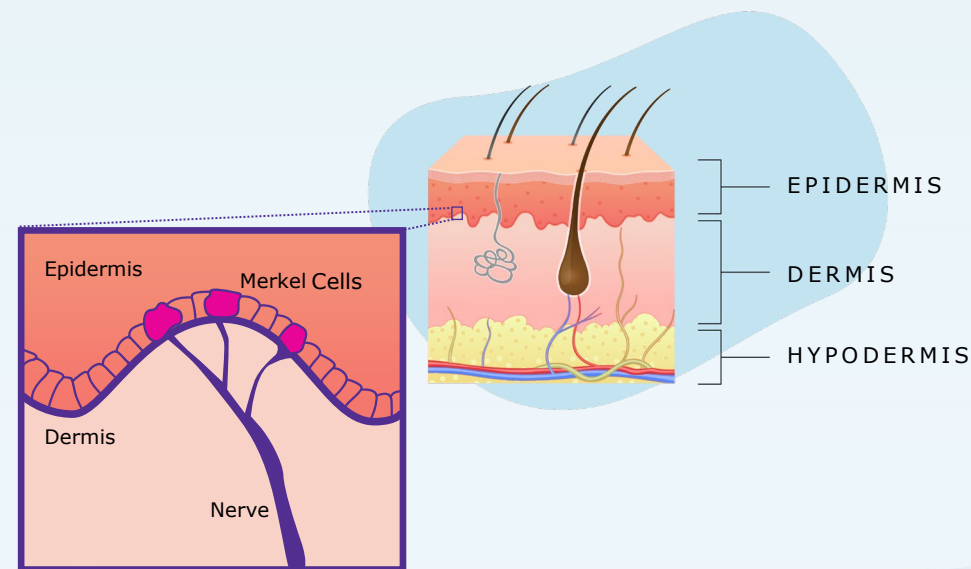
What are Merkel Cells and MCC?

Merkel cells

Merkel cells are in the top part of your skin, called the epidermis. These cells are very close to the nerve endings that help you feel touch.¹

Merkel cell carcinoma

- Merkel cell carcinoma (MCC) is a very rare type of skin cancer, in which the Merkel cells grow out of control and form a tumor.¹
- MCC is different from more common skin cancers, such as melanoma, squamous cell carcinoma, and basal cell carcinoma, which arise from other types of cells in the skin.²
- Merkel cell carcinoma usually starts in skin areas that get a lot of sun, particularly the head and neck, as well as the arms, legs, and trunk.¹



**People Diagnosed
with MCC in the U.S**

3000
in **2020**

3200
in **2025.**³

Distribution of MCC +

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CARCINOMA**

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1. PDQ® Adult Treatment Editorial Board. PDQ Merkel Cell Carcinoma Treatment. Bethesda, MD: National Cancer Institute. Updated June 25, 2021. <https://www.cancer.gov/types/skin/patient/merkel-cell-treatment-pdq> Accessed March 3, 2025. 2. Roky AH, et al. *Cancer Pathog Ther*. 2024;3(2):89-100. 3. Singh N, et al. *Curr Treat Options Oncol*. 2023;24(9):1231-1258.



What are

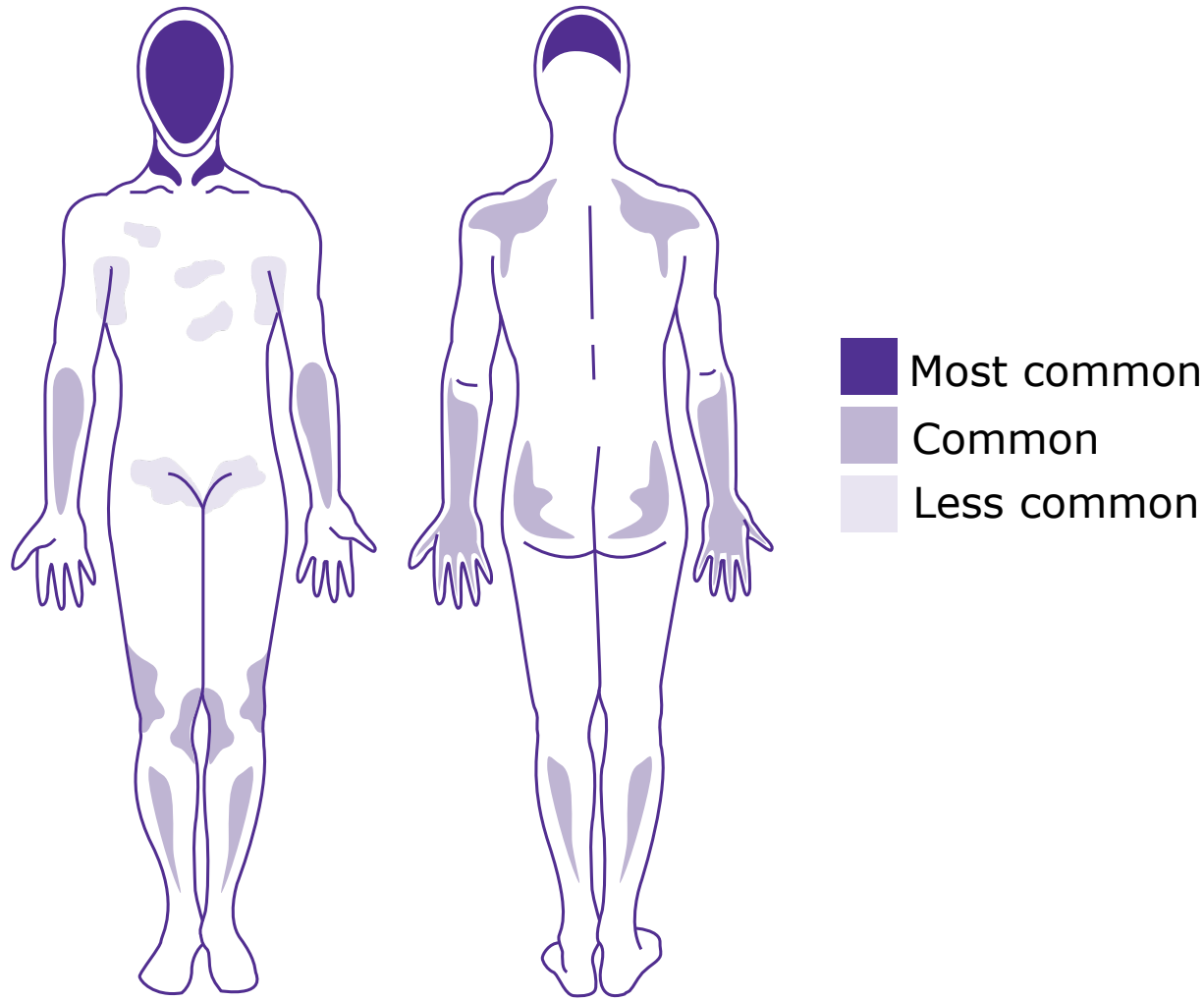
Merkel cell

Merkel cells are found in the epidermis. They have endings that

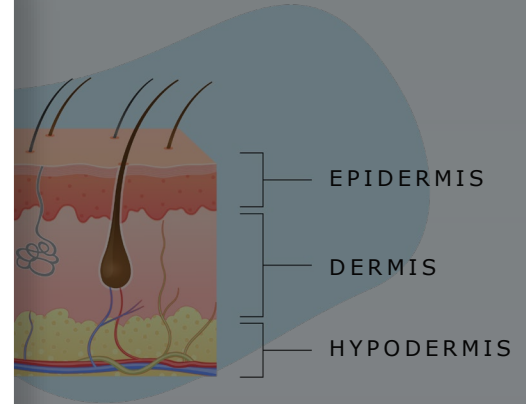
Merkel cell

- Merkel cell carcinoma is a type of skin cancer that is rare and can be difficult to control and treat.
- MCC is different from other types of skin cancer, such as melanoma and basal cell carcinoma. It is made up of cells in the epidermis that are responsible for touch.
- Merkel cell carcinoma often occurs on the head and neck, as well as on the arms and legs.

Distribution of MCC



Heath M, et al. *J Am Acad Dermatol.* 2008;58(3):375-381



Diagnosed
C in the U.S

3200
in 2025.³

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How to Spot Merkel Cell Carcinoma?

Location

Skin areas that get a lot of sun.
~50% on the head and neck, but can occur anywhere on the body^{1,2}

Size

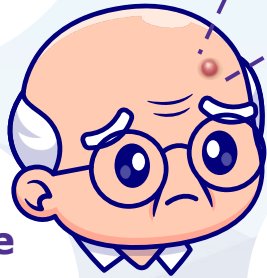
Dimensions vary, but the average size at detection is 3/4 inch¹

Appearance

Painless, firm, shiny or pearly bump^{1,3,4}

Color

Skin-colored, red, purple or bluish-red¹



Warning signs²:

The acronym **AEIOU** is often used to summarize the classical clinical characteristics of MCC:

Asymptomatic

Expanding rapidly (≤ 3 months)

Immune suppression

Older than 50 years of age

UV exposure on fair skin



Stages and Survival^{1,2}

Localized



Commonly known as Stage I and II

Stage I: The cancer is smaller than 2 cm and has not spread to nearby areas

Stage II: Cancer is more than 2 cm and has spread into nearby tissues

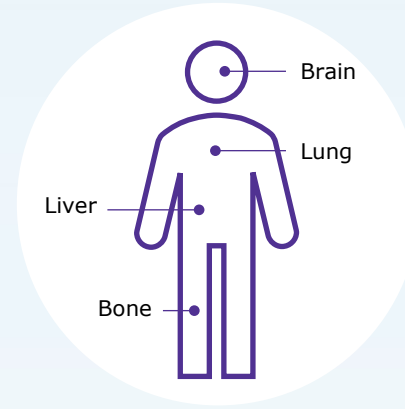
Regional



Commonly known as Stage III

Cancer can be of any size and has spread into nearby tissues and near or distant lymph node.

Distant



Commonly known as Stage IV

Cancer can be of any size and have spread into tissues, distant lymph nodes or organs, such as the liver, lung, bone, or brain.

5-year relative survival +

1. PDQ® Adult Treatment Editorial Board. PDQ Merkel Cell Carcinoma Treatment. Bethesda, MD: National Cancer Institute. Updated June 25, 2021. <https://www.cancer.gov/types/skin/patient/merkel-cell-treatment-pdq> Accessed March 3, 2025 2. ACS. Survival Rates for Merkel Cell Carcinoma. Updated, January 10, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/survival-rates.html> Accessed March 3, 2025.



Stages and Survival^{1,2}



5-year relative survival

The percentage of people who are alive five years after their diagnosis or start of treatment for their disease.¹

Stages	5-year relative survival rate ²
Localized (Stage 1 and 2)	75%
Regional (Stage 3)	61%
Distant (Stage 4)	24%
All stages combined	65%

1. NCI dictionaries. Dictionary of Cancer Terms. Five-year survival rate. Accessed April 4, 2025. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/five-year-survival-rate>
2. ACS. Survival Rates for Merkel Cell Carcinoma. Updated, January 10, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/survival-rates.html> Accessed March 3, 2025.

Stage I: Cancer is less than 1 centimeters (cm) and has not spread to nearby lymph nodes.

Stage II: Cancer is 1 to 2 centimeters (cm) and has spread into nearby tissue.

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1. PDQ® Adult Treatment Editorial Board. PDQ Merkel Cell Carcinoma Treatment. Bethesda, MD: National Cancer Institute. Updated June 25, 2021. <https://www.cancer.gov/types/skin/patient/merkel-cell-treatment-pdq> Accessed March 3, 2025 2. ACS. Survival Rates for Merkel Cell Carcinoma. Updated, January 10, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/survival-rates.html> Accessed March 3, 2025.



Causes and Prevention

Causes and risk factors^{1,2}



Age

Most Americans aged **≥50** are at risk with most diagnosed at **≥ 70 years**

Light skin

More than **9 of 10** Americans diagnosed with MCC are **white**

History of skin cancers

Previous melanoma **triples** the risk for MCC³



Sex

Likelihood of MCC is **~2X higher in men** than in women⁴



UV light exposure

- Naturally from the sun
- Artificial light sources like tanning beds

Weakened immune system

1. Medical conditions
2. Medications

Merkel cell polyomavirus (MCPyV) infection

+

Prevention¹

- Use sunscreen with SPF 60 every day, even when you're inside. Put on more sunscreen every two hours, especially when you're outside.
- Don't use tanning beds or sunlamps.
- Stay in the shade when you're outside.
- Wear tightly woven clothes with long sleeves, a wide hat and large sunglasses when outdoors.

UV: Ultraviolet; SPF: Sun Protection Factor

1. Cleveland clinic. Merkel cell carcinoma. Updated April 15, 2022. <https://my.clevelandclinic.org/health/diseases/17971-merkel-cell-carcinoma>. Accessed March 4 2025. 2. ACS. Key Statistics for Merkel Cell Carcinoma. Updated January 10, 2025. Accessed March 5, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/about/key-statistics.html> 3. Becker JC, et al. *Nat Rev Dis Primers*. 2017;3:17077. 4. ACS. Merkel Cell Carcinoma Risk Factors. Updated January 10, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/causes-risks-prevention/risk-factors.html> Accessed April 24, 2025.

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Causes and Prevention

Merkel cell polyomavirus (MCPyV) infection

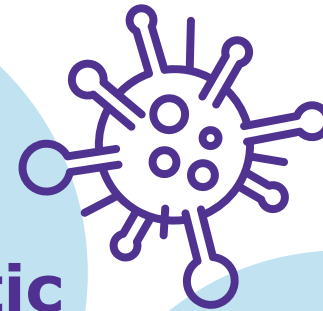


About
80%

of Merkel cell carcinoma cases in the U.S. are caused by MCPyV infection.¹

MCPyV is a common virus;
~67–90%
of healthy people have been infected by it.²

MCPyV infection is
commonly asymptomatic
in the general population.³



The virus often
infects the skin,
though it can also infect other organs.^{2,3}

1. Krump NA, *Front Microbiol.* 2021;12:739695. 2. Silling S, et al. *Cancers (Basel)*. 2022;14(24):6176. 3. Spurgeon ME, *Virology*. 2013;435(1):118-130.

UV: Ultraviolet

1. Cleveland clinic. Merkel cell carcinoma. Updated April 15, 2022. <https://my.clevelandclinic.org/health/diseases/17971-merkel-cell-carcinoma>. Accessed March 4 2025. 2. ACS. Key Statistics for Merkel Cell Carcinoma. Updated January 10, 2025. Accessed March 5, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/about/key-statistics.html> 3. Becker JC, et al. *Nat Rev Dis Primers*. 2017;3:17077.

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Diagnostic Test Options

For initial assessment

Physical examination¹



The area(s) in question will be checked. Nearby lymph nodes will be examined for swelling.

If cancer is suspected, a dermatologist will use a special magnifying lens and light to look more closely at the spots in a test called **dermoscopy**.

For diagnosis

Biopsies¹



Biopsies are surgical procedures that remove cell samples from a suspicious area of the **skin** (and sometimes nearby **lymph nodes**).

The samples are examined by pathologists using microscopes and special dyes. This helps identify the types of cells and whether they are cancerous.

For assessment of potential spread

Imaging tests¹



CT scan: Uses X-ray technology to create 3D views of organs.^{1,2}

MRI scan: Uses magnetic fields and radio waves to make detailed pictures of areas inside the body.^{1,2}

PET scan: Creates detailed 3D pictures of areas inside the body where a radioactive substance has been taken up.^{1,2}

More information on Biopsies +

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Diagnostic Test Options

Diagnostic Test Options: Biopsies



Skin biopsy

Incisional biopsy

Removal of portion of a tumor.

- **Deep shave (tangential) biopsy**
A surgical blade is used to scrape the top layers of the abnormal skin to test for cancer.
- **Punch biopsy**
A specialized tool is used to remove a deeper sample of skin, where all the skin layers are taken.

Excisional biopsy

Removal of entire tumor.

Sentinel lymph node biopsy (SLNB)

Procedure to test if cancer has spread beyond the original tumor by removing small lymph nodes that are nearby the tumor (sentinel nodes) and test them for cancer cells.

- **Needle biopsy**
In a **core biopsy**, a wide needle is used to remove a lymph node sample for examination under a microscope.
- **Fine needle aspiration (FNA) biopsy** uses a syringe with a very thin and hollow needle to remove cells.
- **Surgical (excisional) lymph node biopsy**
The doctor takes out the entire lymph node through a small cut (incision) in the skin.

1. ACS. Tests for Merkel Cell Carcinoma. Updated January 10, 2025. Accessed March 5, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/detection-diagnosis-staging/how-diagnosed.html>

More information on Biopsies +

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Treatment Options



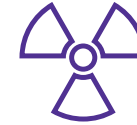
Surgery¹:

Wide excision: A surgery that involves removing the entire area that's suspected to be cancerous, along with some normal, healthy tissue (called margins) to be sure all the cancer is removed.

Amputation: In rare cases, if the cancer is on a finger or toe, part or all of that finger/toe might need to be removed depending on the tumor.

Mohs micrographic surgery: This is a special surgery that removes thin layers of the affected area to save as much healthy skin as possible. It's often done for cancers on the face or ears.

Lymph node dissection: A procedure in which the surgeon removes all the lymph nodes near the tumor.



Radiation therapy:

uses beams of intense energy to kill cancer cells^{2,3}



Systemic therapy:

uses drugs that circulate through the body to destroy cancer cells and prevent tumor growth³



Immunotherapy:

treatment of disease by using the immune system²

1. ACS. Surgery for Merkel Cell Carcinoma (MCC). Updated January 10, 2025. Accessed March 5, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/treating/surgery.html>
2. ACS. Treating Merkel Cell Skin Cancer. Accessed March 5, 2025. <https://www.cancer.org/cancer/types/merkel-cell-skin-cancer/treating.html> 3. ACS. How Radiation Therapy Is Used to Treat Cancer. Updated December 17, 2024. Accessed March 5, 2025. <https://www.cancer.org/cancer/managing-cancer/treatment-types/radiation/basics.html>