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Cancer Center

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Neurosurgeon Cameron Brennan is an expert in treating people with glioma.

A glioma (glee-OH-muh) is a type of brain tumor that starts in the glial cells. These cells surround and support the neurons in the brain and other parts of the nervous system.

Gliomas are one of the most common types of [primary brain tumors](#). They can be low grade (grow slowly) or high grade (grow fast). Sometimes low-grade gliomas change into high-grade gliomas over time. There are several types of gliomas.

A glioma in the brain

What are the symptoms of a glioma?

The symptoms of a glioma depend on the type of tumor and its location. These can include:

Confusion or memory loss

Problems with talking

Seizures, which can change how you feel, act, or sense things. Seizures are a sudden, uncontrolled change in your brain electrical activity. They often are an early sign of a glioma.

Nausea (feeling like throwing up)

Vomiting (throwing up)

Weakness and problems with walking and balance

Problems with vision

Learn more about the [symptoms of gliomas](#).

What are the types of gliomas?

The type of glioma is based on the kind of cells where they start.

Astrocytoma (AS-troh-sy-TOH-muh) tumors affect the glial cells called astrocytes. The most aggressive astrocytoma is a glioblastoma. Other names for glioblastoma are GBM or glioblastoma multiforme.

Oligodendroglioma (AH-lih-goh-DEN-droh-gee-OH-muh) affects the glial cells called oligodendrocytes. These cells cover and protect nerve cells in the brain and spinal cord. This is kind of glioma grows slowly.

Brain stem glioma is a tumor that starts in the part of the brain that connects to the spinal cord (the brain stem). It can grow quickly or slowly.

Ependymoma (eh-PEN-dih-MOH-muh) starts in ependymal cells. These cells line the hollow ventricles (cavities) in the brain and the central canal of the spinal cord.

Learn more about the [types of gliomas](#).

What are the grades of a glioma?

Each of these types can be broken into grades 1 through 4. Treatment depends on the glioma's type and grade. The lower the number, the more slowly the glioma grows.

Grades 1 and 2 are low-grade gliomas. Low-grade gliomas can still be a very serious kind of cancer. Although they grow slowly, they can grow into a healthy brain. This can cause symptoms.

How is a glioma diagnosed?

Doctors use imaging tests and a biopsy procedure to diagnose disease. MSK's [glioma experts](#) use a few methods to diagnose a glioma.

Imaging tests can include [CT, PET, or MRI scans](#).

A biopsy is a procedure done to take samples of tissue or cells to check for cancer. During a biopsy, your doctor removes a small amount of cells or tissue for a pathologist to examine.

In a biopsy procedure, we remove a small piece of tissue from the tumor. A [pathologist](#) is a doctor who uses a microscope to make a diagnosis. They will look for glioma cells.

Learn more about [how MSK diagnoses glioma](#).

What are the treatments for a glioma?

Low-grade glioma tumors often are treated first with surgery. We try to remove as much of the tumor as we can. Some people also may have radiation therapy, chemotherapy, or choose to join a research study, called a [clinical trial](#).

There has been promising research into [new treatments for lower grade gliomas](#).

High-grade glioma tumors hard to remove all the way with surgery. But new methods and clinical trials show promise. A high-grade tumor may take more time to grow back after surgery.

MSK uses only the latest treatment methods and technology

Neurosurgery: Our neurosurgeons use the latest surgery methods to help protect your vision and movement. Their goal is to keep your body working as it should.

Radiation therapy: MSK's radiation oncologists target tumors and areas where there's a risk the cancer can come back. At MSK, radiation treatment is guided by very advanced imaging methods that are not available at most hospitals.

Chemotherapy (chemo): Our experts carefully design chemotherapy treatments to work as well as possible, with fewer side effects.

Learn more about [glioma treatment](#).



Brain Tumor Remote Second Opinions from Neurosurgeons at MSK

Learn how to get a remote second opinion about your brain cancer or benign tumor diagnosis from MSK neurosurgeons.

[Learn more](#)

Why should I choose Memorial Sloan Kettering for glioma treatment?

MSK's team of glioma experts

MSK's glioma experts are [specialists](#) who work closely with one another to choose the best treatment for you. You will have many people on [your cancer care team](#), and they each have an important role in your treatment.

Your care team includes doctors with special training in:

Neurosurgery. A neurosurgeon is a doctor with special training in surgery on the central nervous system. They treat conditions that affect the brain, spinal cord, and nerves.

Neuro-oncology. A neuro-oncologist is a doctor with special training in cancers that affect the brain, spinal cord, peripheral nerves, and muscles. This includes brain tumors and central nervous system tumors.

Neurology. A neurologist is a doctor with special training in conditions that affect the brain, spinal cord, nerves, and muscles.

Radiation oncology. A radiation oncologist is a cancer doctor with special training in using radiation therapy to treat cancer with radiation.

The MSK difference for treating glioma

Brain tumor experts: There are more than 125 kinds of brain cancer. MSK's [brain tumor experts](#) know how to treat both common and rare brain tumors. They're very experienced in standard of care treatments such as surgery, radiation, and chemotherapy. They also use newer treatments, such as targeted therapies and immunotherapies. MSK doctors and scientists are researching new ways to treat brain tumors.

Our [care teams](#) include doctors, nurses, nurse practitioners, pharmacists, and cancer rehabilitation therapists. This team comes together to meet your medical, physical, emotional, and spiritual needs. Everything we do is focused on helping you through treatment for brain tumors.

Advanced genetic testing: A DNA sequencing test called [MSK-IMPACT](#) is only available at MSK. It can identify genetic changes (mutations or variants) that drive a tumor's growth. MSK-IMPACT is a test that can predict which treatments are most likely to shrink or control the glioma.

MSK offers personal, molecular medicine as a routine part of our care for people with brain tumors. We're one of very few centers in the world to use this approach.

Remote second opinions: Our expert neurosurgeons can review your health records without you having to travel to MSK. We will get your [second opinion](#) written report back to you in 48 hours. Our neurosurgeons will not examine you or talk to you in person.

You are still under the care of your local doctor. Talk to them about which brain cancer or tumor treatment is best for you.

Learn how to [become a patient](#) at MSK.

Research: MSK patients have access to research studies, also known as [clinical trials](#), that explore new and better treatments for gliomas. Sometimes these studies offer therapies years before they're available anywhere else. This includes new immunotherapy methods that in the future may help some people with gliomas.

Support: During and after treatment, MSK supports the physical, emotional, and spiritual needs of people with gliomas. We know you may need help even after you finished your cancer treatments. We're here to support your body, mind, and spirit for as long as you need us. You can learn more about all [MSK Living Beyond Cancer resources](#).

Convenient locations: You can visit MSK specialists closer to home, not just in Manhattan. We offer treatment at our regional locations in New Jersey, Westchester County, and on Long Island. You can get the same expert care from MSK doctors at these sites, closer to home. [See all MSK locations](#).

Request an Appointment

Call [212-639-6767](tel:212-639-6767)
Available Monday through Friday, 8 a.m. to 6 p.m. (Eastern time)

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