

Five facts you may not know about brain tumors

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Brain tumors scare most people, but there are still reasons to be hopeful if you learn you have an abnormal growth in your brain—even if it's cancer, says Sean Grimm, MD, chief of the Section of Medical Neuro-

Oncology at RUSH.

Here, Grimm shares five facts about [brain](#) tumors you may not know—and discusses why doctors are encouraged by advances that may help many people with brain tumors live longer, fuller lives.

Fact: Headaches are not always the main symptom of a brain tumor

Daily headaches that get worse over time can be a sign of a brain tumor, but "it's rare that headaches are the only symptom," Grimm says. Other warning signs include:

- Seizures
- Confusion
- Personality changes
- Weakness on one side of the body
- Difficulty walking
- Vomiting
- Trouble with speech, vision or hearing

People with brain tumors may have symptoms like seizures or confusion without having headaches at all. If you're concerned about any symptoms, Grimm recommends making an appointment with your primary care doctor or a general neurologist.

Fact: Cell phones aren't to blame for brain tumors, based on current evidence

Incidence—the number of cases diagnosed each year—of malignant (cancerous) brain tumors has [remained fairly stable](#) in recent years, [even dipping a bit in 2019](#). Although some have speculated that cell phones

could cause brain tumors, [research suggests](#) that's not likely.

"Cell phones have never been shown to truly be a risk, and we haven't seen a huge jump in numbers since the era of cell phone use," Grimm says. "If we do see the numbers go up at some point, it's probably because of our aging population."

Brain tumors affect people of all ages (including children), but they are most common in older adults. "The most aggressive brain tumors, glioblastomas, tend to affect people around age 65," he says. "However, some types of brain tumors, like low-grade gliomas, are more common in 20-year-olds and 30-year-olds."

Fact: More people are surviving brain tumors today, compared with just a few years ago

Five-year survival rates for patients with [cancerous tumors](#) originating in the brain have improved in recent years, Grimm says. He attributes this positive trend to team-based brain tumor care, rather than specific treatment advances.

Research shows that care from a team of specialists can prolong survival and maintain quality of life for many people with brain tumors, Grimm says. At RUSH, the brain tumor team includes neuro-oncologists like Grimm who specialize in treating cancerous brain tumors, as well as neuro-oncologic neurosurgeons who are skilled in minimally invasive techniques that allow some patients to avoid a craniotomy (surgery through the skull). Other [team members](#) include radiation oncologists, nurse coordinators, dietitians and counselors who work together to carry out the best care plan for the patient.

Fact: Survival rates for people with the same type of

brain tumor can vary

A patient diagnosed with glioblastoma may live for many years while another patient with the same diagnosis may survive less than 12 months. To understand why brain tumors can behave so differently, doctors at RUSH aim to decode the molecular makeup of each tumor. "Even if tumors look the same under the microscope, they may not be the same from a molecular basis," Grimm says.

That's why a tissue sample of each brain tumor treated at RUSH is sent for molecular analysis, or what's called next-generation molecular sequencing. "We look for hundreds of genes that can help us from a prognostic standpoint, meaning they will tell us which patients are likely to survive longer, and also from a therapeutic standpoint so we can choose the right therapy for that patient," Grimm says. For example, a hard-to-treat brain tumor that has a mutation found in melanoma may respond to a drug approved to treat that type of skin cancer. "This gives us some additional treatment options," he adds.

Having more potential therapies is important because, compared with other types of cancer, brain tumors are usually more resistant to chemotherapy. Partly to blame is the blood-brain barrier, a protective "shield" of tissue and [blood vessels](#) that's part of our central nervous system. "Normally, the [blood-brain barrier](#) is a good thing because it keeps toxic substances from entering our brain. But in the case of chemotherapy, it keeps many of these drugs out of the brain," Grimm says.

Immunotherapy, which uses the body's natural defenses to fight cancer, also doesn't seem to work as well against brain tumors, compared with tumors in other parts of the body, he adds.

Despite these challenges, he is optimistic about the future of brain tumor

treatment and new therapies that may be uncovered through clinical trials. "As our understanding of the [molecular basis](#) of brain tumors grows, we will be able to apply that knowledge and personalize care for brain [tumor](#) patients," Grimm says.

Fact: Support makes a big difference for many people with brain tumors

While treatment for cancerous brain tumors may involve surgery, radiation and some types of chemotherapy, supportive care aimed at reducing a patient's physical and emotional stress is also a critical part of the care plan, Grimm says.

At RUSH, patients with [brain tumors](#) can receive supportive care that includes psychotherapy, nutrition counseling, financial counseling and spiritual support in Chicago, Oak Park, Oak Brook, Lisle and Aurora/Fox Valley, and soon in Munster, Indiana. Patients can also see a provider within 48 hours of making an appointment.

"Giving patients the ability to see their care team close to home on a regular basis, whether that's weekly or monthly, and offering this type of supportive care is often what makes the difference for [patients](#) with [brain tumors](#)," Grimm says.

Provided by Rush University Medical Center

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