

Brain Tumors: Symptoms, Treatment, and Outcomes

A brain tumor diagnosis can be life-altering, sparking fear and uncertainty in patients and families alike. Whether benign or malignant, brain tumors affect one of the most complex and vital organs in the human body, requiring timely diagnosis, specialized treatment and a comprehensive care plan. As medical science advances, so too does our understanding of how to detect, treat, and manage brain tumors—offering new hope and improved outcomes for many patients.

Gurvinder Kaur, MD, a neurosurgeon with Salinas Valley Health, provides helpful information surrounding brain tumors, including symptoms, treatment and what patients can expect regarding outcomes.

Why Do Brain Tumors Develop?

Brain tumors, while less common than conditions like heart disease, cause significant illness and death due to their impact on the central nervous system. They are generally categorized into two types: primary brain tumors, which originate in the brain, and metastatic brain tumors, which are more common and result from cancers that spread to the brain from other parts of the body, such as the lungs, breasts, or skin (melanoma). Metastatic tumors account for about 80% of brain tumors and often grow in the brain because many chemotherapy drugs cannot effectively cross the blood-brain barrier.

Primary brain tumors can arise from supportive brain cells (gliomas) or the protective layers around the brain (meningiomas). These tumors range from benign, meaning “non-cancerous,” to malignant, with treatment depending on their growth and location. The most severe effects are usually caused by metastatic disease and more aggressive forms of brain cancer.

Brain Tumor Symptoms and Diagnosis

The most common symptoms of brain tumors include morning headaches, nausea, vomiting, seizures, speech difficulties, vision changes and personality changes. These symptoms can sometimes resemble those of a stroke. Imaging studies help differentiate between a stroke and a brain tumor.

“If something is malignant or cancerous, it tends to grow faster. So, those symptoms usually present much quicker and are much more aggressive versus something that is slow-growing-like benign brain tumors,” states Dr. Kaur. “Those can stay dormant at a smaller size for a long time before they grow.”

While headaches are common, persistent morning headaches that don’t respond to over-the-counter medications like acetaminophen or ibuprofen should prompt medical attention. More urgent symptoms—such as seizures, weakness, numbness or difficulty speaking—require immediate emergency care. However, it’s often the milder, ongoing symptoms that lead to delays in diagnosis and treatment.

“Your first way to access diagnostic care is through your primary care doctor; talking with them and discussing the persistency of your symptoms,” explains Dr. Kaur. “If they’re not going away, consider imaging modalities because MRIs of the brain are standard in diagnosing any type of brain tumor.”

How Are Brain Tumors Treated?

Surgery remains the primary treatment for brain tumors, aiming to safely reduce tumor burden. However, a multidisciplinary approach—involving neurosurgeons, neurologists, oncologists, radiation

oncologists and primary care physicians—is essential for comprehensive care. When surgery is feasible, it's often followed by chemotherapy and radiation. Treatment plans are increasingly personalized using molecular markers to guide targeted therapies, especially for metastatic tumors.

Surgical strategy depends heavily on the tumor's location—particularly in "eloquent" brain areas (like those controlling speech or movement), which may require awake surgeries to monitor and preserve key functions during tumor removal.

Post-surgery, patients typically recover for a few weeks before starting additional treatments. These may include oral chemotherapy, IV infusions or clinical trial participation, with Salinas Valley Health partnering with institutions like Stanford and UCSF for advanced options.

Emerging technologies include LITT (laser interstitial thermal therapy), used for deep-seated or recurrent tumors, which also helps disrupt the blood-brain barrier to enhance treatment effectiveness. Other promising innovations include ultrasound therapy and immunotherapies, currently in clinical trials, aimed at improving drug delivery and treatment outcomes for brain tumor patients.

Meeting Patients' Needs and Personal Desires

When a brain tumor is diagnosed, the next steps are crucial. While Dr. Kaur knows the initial conversations are difficult and complex, she approaches them with care and compassion to accompany her expertise. Her ultimate goal is to provide patients with all the options on the table and educate them about what their journey will look like with surgery or without it—so they can choose the path that works best for their needs.

“Sometimes it's very clear-cut, and sometimes it's very challenging. Given the most aggressive brain tumors, glioma, the median survival, even with surgery, is about fourteen to eighteen months with radiation and chemo. So, it's very tough,” she shares. “I think it truly comes down to a patient's personal values. How they want to spend their life plays a role in whether or not they want to pursue surgery. Yet, for most patients, surgery can make a significant benefit in terms of not just improving their lifespan, but also improving their quality of life.”

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