4 Most Common Types of Brain Cancer

by PAULA CLARK

What Are the Different Brain Cancer Types?

When you hear the words “brain cancer” it is normal to get worried. What could be scarier than having a mass of cells growing uncontrollably inside your head? Especially since brain cancer can take its time getting your attention and has usually progressed by the time it is diagnosed. There are also different brain cancer types to know about.

For the host of the Brain Cancer Podcast, the first signs of his brain tumor were headaches that would not respond to painkillers. Next, he had to leave the subway to vomit in a garbage can. And most painfully, some not-so-nice personality changes arrived and nearly got him fired.

It was not until his legs buckled underneath him and caused him to collapse that he was taken to the hospital for a brain scan. It revealed the tumor growing inside his head: glioblastoma. John's Hopkin's Medicine calls it the most feared of all brain tumors.

Common Symptoms of Brain Cancer

Diagnosing brain cancer takes some detective work because symptoms could be caused by many different health conditions. To unravel a health mystery like this, it helps to know the symptoms:

- Headaches that become more frequent and severe over time
- Unexplained nausea or vomiting
- Issues with vision, such as blurred or double vision
- Slow loss of sensation or movement in arms or legs
- Difficulty with balance
- Speech difficulties
- Confusion in everyday matters
- Personality or behavior changes
- Seizures, especially if you do not have a history of them
- Hearing problems

Types of Brain Cancer

Like other cancers, brain tumors start when a healthy cell acquires a genetic mutation that instructs cells to grow uncontrollably. There are 120 types of brain cancers, but I will highlight a few common ones.

Glioma

Glioma literally means “glue tumor” from the Greek word glia meaning glue. The American Brain Tumor Association explains that “glia” is gluey tissue in the brain that helps keep neurons in place and functioning well.

Three types of glial tissue can turn into a brain tumor: astrocytes, oligodendrocytes and ependymal cells. When more than one tissue type combines into a tumor, it is called a mixed-cell glioma or oligoastrocytoma.

There are different types of glioma:

- **Astrocytoma:** This is born out of star-shaped cells called astrocytes. There are four types of astrocytoma graded from I to IV according to their severity. Some types of astrocytoma are more common in children and young adults, while others occur more often in men over 45.
- **Ependyoma:** This type occurs in “ependymal cells that line the ventricles of the brain and the center of the spinal cord”. They can occur in four types ranging from grade I to III. These are rare tumors, accounting for 2% to 3% of all brain tumors. They are more common in children, with 30% being diagnosed in children younger than 3 years of age.
- **Oligodendrogliomas:** Coming from oligodendrocytes, this is another type of gluey tissue in the brain. They can be grade II or grade III. These tumors can take years to detect because of their slow growth. They are also less common, accounting for 4% of all brain tumors.

Two additional types of gliomas are named for their location. Optic glioma is found in any part of the optic pathway. Gliomatosis cerebri are scattered across the brain but are not malignant.

Meningioma

These brain cancer types are slow-growing tumors are often benign and occur in the meninges, the three thin layers of tissue covering the brain and spinal cord. That means they are not strictly a brain tumor. When they grow these tumors put pressure on the brain by growing inward, but they can also grow outward toward the skull.

John Hopkins Medicine explains that meningiomas are often discovered when your doctor is looking for something completely different. They account for 36.1% of all brain tumors which makes it the most common brain cancer.

Medullablastoma

Medullablastoma is a fast-growing tumor that occurs most commonly in children. This makes sense because these tumors arise from immature embryonal cells that are just starting to develop. These tumors are always located at the lower rear part of the brain called the cerebellum.

While these tumors account for 18% of all pediatric brain tumors, they only account for 2% of all brain tumors and are therefore considered rare.

Glioblastoma

Glioblastoma may arrive as a grade IV level malignant tumor from the start. A grade II or III astrocytoma may also develop into a grade IV glioblastoma over time. Symptoms tend to escalate more quickly because of their fast-growing nature.

Testing and Diagnosis for Brain Cancer

Brain tumors can be difficult to diagnose. Their symptoms could arise from several different health problems. Fortunately, there are a number of tests your doctor can perform to get to the bottom of any symptoms:

- Neurological tests
- Brain scans
- Lab tests
- Pathology reports
- Brain biopsy
- Genetic testing

Treatment Options for Brain Cancer

Brain cancer treatments are designed to treat the specific tumor it needs to attack.

Common treatments:

- Steroids
- Surgery
- Chemotherapy
- Radiation
- Stereotactic radiosurgery (targeted radiation)
- Proton surgery (radiosurgery using protons)

Newer treatments:

- **Tumor treating fields (TTF):** This is a new treatment approach for glioblastoma using electromagnetic energy to destroy cancer cells.
- **Complementary medicine:** This is often used to help the body recover and heal from traditional therapies; be wary of practitioners who advise you to give up your traditional therapy entirely.
- **Clinical trials:** These may be offered to some patients who are eligible to try an experimental therapy. The Brain Cancer Podcast host is taking part in a clinical trial because he had a non-methylated IDH mutated glioblastoma, meaning certain drugs will not be as effective for him. It made him eligible for an immunotherapy clinical trial.

Like any other cancer treatment, side effects are to be expected:

- Fatigue
- Memory and cognitive changes
- Neuropsychiatric side effects
- Depression
- Infertility
- Late effects
- Seizures

To help cope with the side effects, many patients seek physical, speech and occupational therapy to help adjust to changes, and learn how to manage daily tasks in a new way.

Brain Cancer: A Survival Story

On August 7, 2020 our intrepid host of the Brain Cancer Podcast host gave his listeners an update on his progress. With the fourth anniversary of his diagnosis on the horizon, he received a healthy MRI scan that showed his condition remains stable. You can follow him on Twitter and listen to his podcast.