TIP SHEET

Brain Tumors

About Brain Tumors

Brain tumors can be either *malignant* (cancerous) or *benign* (not cancerous).

A *malignant* brain tumor is likely to grow rapidly and invade healthy brain tissue nearby; it can be life-threatening. Many malignant brain tumors are treatable, and new therapies are enabling patients to live longer while preserving their quality of life.

A *benign* brain tumor does *not* contain cancer cells. It rarely invades nearby tissue or spreads to other parts of the body, and usually does not grow back after it is removed. However, even a benign brain tumor can be lethal if it is not treated, because it is growing inside a closed space (the skull) and can press on the brain. Many benign brain tumors are curable.

How Common Are Brain Tumors in the U.S.?

Brain tumors are relatively rare. They can occur at any age, but are most common in children and older adults. Men have about a one in 140 lifetime chance of developing a brain tumor; for women, chances are about one in 180.

In 2012, **63%** of newly diagnosed primary brain tumors were benign, and **37%** were malignant.

(Source: National Brain Tumor Society)

What Are the Risk Factors for Brain Cancer?

- Some brain tumors have been linked to radiation treatments for other medical conditions (such as leukemia). These types of tumors are rare.
- About 5% of brain tumors are linked to a family history of:
  - Neurofibromatosis type 1 and type 2 (NF1 & NF2)
  - Tuberous sclerosis
  - Von Hippel-Lindau disease
  - Li-Fraumeni syndrome.

STROKE OR BRAIN TUMOR?

Seizures that occur for the first time in young people or middle-aged adults are more likely to be caused by a brain tumor than a stroke.

WHAT CAUSES BRAIN TUMORS?

We are not certain what causes most brain tumors.

Symptoms of a Brain Tumor

- Persistent daily headaches
- Changes in speech, vision, or hearing
- Problems in balancing or walking
- Changes in mood, personality, or ability to concentrate
- Problems with memory or confusion
- Seizures or convulsions
- Numbness, weakness, or tingling in the arms or legs

Brain Tumor Diagnosis?

We recommend a second opinion BEFORE you start treatment.

If you are diagnosed with a brain tumor, it is often helpful to get a second opinion to confirm the diagnosis and understand all the treatment options. In some cases, advanced techniques that are not available everywhere can be used successfully to treat brain tumors that were considered inoperable or untreatable in the past.

Why RPCI?

- We specialize in cancer and have experience with rare cancers that other teams may see rarely or never. We use the same expertise and advanced technology to treat patients with benign brain tumors.
- Our One-Day Clinic enables patients to see several specialists in one day, in one location.
- Our operating room is equipped with MRI, to increase safety and help surgeons confirm, *during surgery*, that the entire tumor has been removed. This reduces the chance that tumor tissue will be left behind.
- Some tumors are treated with Gamma Knife radiosurgery, which destroys them with 192 intersecting gamma ray beams, without the need for open surgery.
- BlueCross BlueShield has identified RPCI as a Blue Distinction Center for Complex & Rare Cancers, including primary brain tumors.
- We're at the forefront in research: eligible RPCI patients have access to clinical trials of promising new treatments that are not available at many other centers.

Meet the Doctors

Neurosurgery
1) Andrew J. Fabiano, MD, FAANS
2) Robert Fenstermaker, MD, FACS, FAANS

Radiation Medicine
3) Dheerendra Prasad, MD, MCh, FACRO

Neuro-Oncology
4) Ajay P. Abad, MD
5) Laszlo L. Mechtler, MD, FAAN

Neuroradiology
6) Ronald Alberico, MD
7) Ahmed Belal, MD

Pediatrics
8) Lorna Fitzpatrick, MD

Head & Neck / Plastic & Reconstructive Surgery
9) Hassan Arshad, MD

Neuropathology
10) Jingxin Qiu, MD, PhD

RPCI researchers developed SurVaxM, a vaccine to treat a type of malignant brain tumor called a *glioma*. The vaccine is currently being studied in clinical trials at RPCI.

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Before you make any surgery or treatment decisions, please spend Just One Day With Us. Call 1-877-ASK-RPCI (1-877-275-7724) or visit JustOneDayWithUs.org.