

# 25 FACTS

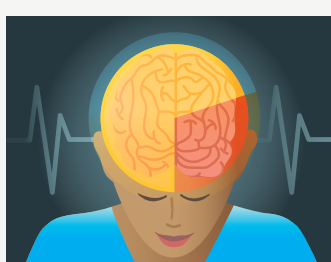
## ABOUT BRAIN TUMORS & NEUROLOGIC DISORDERS

Accuray is committed to expanding the powerful potential of radiation therapy to improve as many lives as possible.

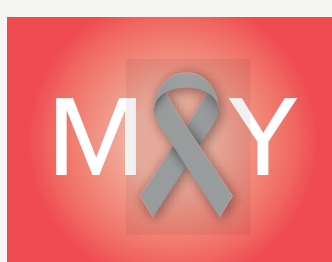
It has been more than 25 years since the first patient with a brain tumor was treated with the **Accuray CyberKnife® System** – the world’s only robotic radiosurgery system offering highly precise, non-surgical treatment for tumors and lesions anywhere in the body. This includes the brain, kidney, liver, lung, pancreas, prostate and spine.



Treating brain tumors can require an entire team including: neurosurgeon, neurologist, oncologist and radiation oncologist.



70% of brain tumors diagnosed are benign.



May is Brain Tumor Awareness Month.



There are 120 types of brain and central nervous system tumors.



The median age at diagnosis of a brain tumor is 60.

### ACOUSTIC NEUROMA

Did you know that symptoms of acoustic neuroma, a rare, non-cancerous tumor, may include ringing in the ear and issues with hearing on one side?

About **2,500 people are diagnosed with an acoustic neuroma each year in the US.**

Most cases of acoustic neuroma develop in people **between the ages of 30 and 60.** Women are affected more often than men.

### TRIGEMINAL NEURALGIA

Trigeminal neuralgia is a disease that **affects the 5<sup>th</sup> cranial nerve** and often requires long-term medical treatment to block the pain signals sent to the brain. In some cases, patients stop responding to medications or suffer from side effects. In these instances alternative treatments are explored.

While trigeminal neuralgia occurs most often in **people over age 50,** patients can be diagnosed at any age.

### MENINGIOMA

Meningiomas, which originate in the central nervous system, are the most common primary intracranial tumor.

Approximately **90% of all meningiomas are benign,** or non-cancerous. Most meningiomas occur in people **between the ages of 30 and 70** and women are more than twice as likely as men to develop a meningioma.

An estimated **87,240 people in the US** will receive a primary brain tumor diagnosis in 2020 and 37.6% of those tumors will be meningiomas.

Hyperostosis, or excessive growth of bone, is commonly produced by meningioma. Before doctors had the technology to identify a tumor’s location, these boney growths were used as markers for the tumor’s position prior to surgery. Hyperostosis has been found in Neolithic, Egyptian and South American skulls.

### TREATMENT & HISTORY

The first brain tumor was discovered in 1881 in Scotland and was resected surgically.

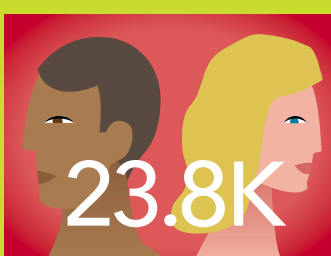
The first treatment with the **CyberKnife System** was delivered in 1994 to a person with a brain tumor.

**More than 350,000 people have been treated with the CyberKnife System for conditions within the brain.**

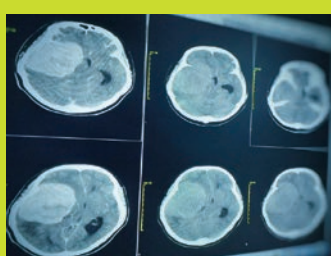
Brain tumors can be treated with stereotactic radiosurgery, chemotherapy, targeted therapy, whole brain radiotherapy and tumor treating fields.

Whole-brain radiotherapy delivers external radiation to the whole brain, usually over many weeks. Stereotactic radiosurgery (SRS) delivers precisely targeted doses of external radiation to the tumor with one high dose treatment or a few treatments.

The **CyberKnife System** can be used to treat cancerous and non-cancerous brain tumors with up to five precise high doses of SRS. This is an effective option for many people including those with recurrent tumors and young patients who can’t be treated with a fixed head frame.



An estimated 23,820 adults in the U.S. will be diagnosed with a primary cancerous tumor of the brain and spinal cord this year. Of that number, 13,410 will be men and 10,410 will be women.



Did you know that organizations such as the American Brain Tumor Association and Acoustic Neuroma Association provide support to patients with intracranial tumors?



The risk of developing a brain tumor may be increased by exposure to radiation. There are no known ways to prevent brain tumors.



Symptoms for brain tumors can include headaches, seizures, personality or memory changes, nausea, fatigue and sleep problems.



Well-known figures diagnosed with a brain tumor such as Mark Ruffalo, Kate Walsh, Lance Armstrong and John McCain have helped raise awareness about finding treatments for brain tumors.

**Safety Statement for Radiation Treatment:**

Most side effects of radiotherapy, including radiotherapy delivered with Accuray systems, are mild and temporary, often involving fatigue, nausea, and skin irritation. Side effects can be severe, however, leading to pain, alterations in normal body functions (for example, urinary or salivary function), deterioration of quality of life, permanent injury and even death. Side effects can occur during or shortly after radiation treatment or in the months and years following radiation. The nature and severity of side effects depend on many factors, including the size and location of the treated tumor, the treatment technique (for example, the radiation dose), the patient’s general medical condition, to name a few. For more details about the side effects of your radiation therapy, and if treatment with an Accuray product is right for you, ask your doctor.