WHAT ARE CNS TUMORS?
The central nervous system (CNS) is made up of the brain and spinal cord. Tumors located in these areas of the body are referred to as CNS tumors.

CNS tumors are rare. Of the 1.7 million new cases of cancer diagnosed each year in the United States, just 308,000 (27%) are in the brain or spine3.

SECOND MOST COMMON CHILDHOOD CANCER

In children younger than 15, CNS tumors are the second most common form of cancer. They may be benign (not cancer) or malignant (cancer) and are divided into primary (tumors that originate in the brain or spinal cord) and metastatic (tumors that start in other parts of the body and spread to these areas of the body). Some studies suggest a link between a family history of cancer and an increased risk of developing CNS tumors.

KNOW YOUR RISK

Learn more about how Accuray is redefining what’s possible in the treatment of CNS cancers.

A SIMPLE GUIDE TO CENTRAL NERVOUS SYSTEM (BRAIN & SPINE) TUMORS

HOW ARE CNS TUMORS DIAGNOSED?

Tumors are often detected during routine medical exams or when symptoms result from the tumor. In order to confirm the presence of a tumor, a patient may be referred to a neurologist for a more thorough exam — and may undergo one or more of the following tests:

• Imaging (X-ray, CT, PET, MRI or fMRI)
• Blood & urine analysis
• Spinal tap
• Medical history and physical exam

Using these and other techniques, a healthcare professional can often confirm the diagnosis and stage the tumor. Stage is based on factors such as size, location, and whether the tumor has spread.⁴

WHAT ARE THE TREATMENT OPTIONS?

Today there are more options than ever for effectively treating CNS tumors. The choice of treatment will depend on the type of tumor, how it grew, where it began, where the tumor is located and the stage or grade of the tumor. Some primary (tumors that originate in the brain or spinal cord) and metastatic (tumors that start in other parts of the body and spread to these areas of the body) CNS tumors can be surgically removed.

Unfortunately, not all tumors can be surgically removed. Surgery may not be an option for some tumors, but modern approaches are offering promising treatment options with proven outcomes for a wide range of CNS tumors. Some forms of radiation therapy are offering promising treatment options with proven outcomes for a wide range of CNS tumors.

RADIATION THERAPY IMPROVES OUTCOMES FOR CNS TUMOR TREATMENT

The precision of surgical intervention can improve outcomes for many brain and spinal tumors, but there are many cases where radiation therapy is a better option. Radiation is highly targeted and is designed to destroy tumors while minimizing damage to healthy tissue. As a result, radiation therapy is often recommended as a first-line treatment option for many brain and spinal tumors. It can also be helpful as an adjuvant treatment to surgeries to help remove or destroy any residual tumors.

And today, radiation therapy is more advanced than ever. Advances in technology have made it possible to deliver highly focused, precise, and controlled radiation doses to tumors — and help minimize side effects. Radiation therapy treats CNS tumors in two basic ways:

• External beam radiation therapy — directed from outside the body
• Stereotactic body radiation therapy (SBRT) — directed from inside the body

The precision of modern radiation therapy can help improve outcomes for the treatment of CNS tumors. IMRT is a specialized form of external beam radiotherapy that modulate the intensity of the radiation beams to fit the contours and shape of the tumor.

IMRT is a specialized form of external beam radiotherapy that is designed to deliver highly focused, precise and controlled radiation doses to tumors — and help minimize side effects. IMRT is often recommended as a first-line treatment option for many brain and spinal tumors. It can also be helpful as an adjuvant treatment to surgeries to help remove or destroy any residual tumors.

ADVANTAGES OF MODERATION THERAPY

• Precision — Targeted high doses of radiation to destroy tumors.
• Flexible — Treats tumors no matter where they are located.
• Modern — Many patients receive treatment in one session.

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