Our Brain and Central Nervous System Cancer Specialists

Jason K. Rockhill, PhD, MD
“Being diagnosed with a brain tumor strikes at the very core of an individual. My role is to provide the best possible support so they do not have to journey alone.”

Lia Moriguchi Halasz, MD
“To me, being a physician means not only treating the disease, but supporting the patients’ strength, hope, and recovery.”

Yolanda Tseng, MD
“I feel privileged to be part of a team that provides the best care for our patients. I’m always impressed by my patients’ strength during a stressful and uncertain period of their lives. The care we provide - clinical, emotional, and personal - is one of the most gratifying aspects of being an oncologist.”

All our radiation oncologists are faculty at the University of Washington School of Medicine and all are board certified. All our physicians are experts in proton therapy and other forms of radiation, so they will provide you with an expert recommendation for your consideration.

Please contact us at info@seattleprotons.org or call 877-897-7628.

Brain and Central Nervous System Tumors appropriate for proton therapy include:

- Low grade gliomas and grade III gliomas
- Meningiomas
- Acoustic neuromas and vestibular schwannomas
- Ependymomas
- Medulloblastomas
- Pineoblastomas
- Supratentorial PNETs
- Germ cell tumors
- Craniopharyngiomas
- Pituitary adenomas
- Almost all pediatric brain tumors

Physicians: For further information, please contact our Medical Director, Dr. Ramesh Rengan at 206-306-2800.
Tumors of the brain may be benign (non-cancerous) or malignant (cancerous). Benign brain tumors may need to be treated because they can cause serious health problems by pressing on sensitive areas of the brain. Some benign tumors can become malignant over time. Malignant tumors are classified as brain cancers whether they originate in the brain or have spread to the brain from cancers in other parts of the body. Because the brain is so complex, treatment to this area might have long-term implications to the nervous system or other organs. If you or someone you love has been diagnosed with a brain tumor, we recommend learning about all your treatment options before making a decision.

Proton therapy
Proton therapy is a non-invasive treatment that uses proton radiation to kill cancer cells by preventing them from dividing and growing.

Considerations: Proton therapy delivers less radiation to the non-target healthy brain than X-ray radiation. This decrease in dose to normal brain tissues reduces the likelihood of secondary cancers and damage to the pituitary gland, and allows the patient to retain better overall brain function.

Standard X-ray radiation
Standard radiation is a commonly used treatment to kill cancer cells by preventing them from dividing and growing. Options include intensity-modulated radiation therapy (IMRT) and 3D conformal therapy.

Considerations: Standard radiation is often appropriate for metastatic tumors or when there are multiple tumors in the brain.

Surgery
The surgeon will remove the tumor and affected cells.

Considerations: Radiation may still be needed to make sure all cancerous cells have been eliminated.

Chemotherapy
Chemotherapy is the use of drugs to kill or alter the cancer cells in the brain, often used in combination with other therapies.

Considerations: Chemotherapy drugs have limited effectiveness in treating brain tumors. However, when used in conjunction with other therapies, their effectiveness increases.

Advantages of Proton Therapy
Too much radiation to the brain has been known to cause neurological dysfunction. Compared with X-ray (conventional) radiation therapy, proton therapy results in less exposure to the normal brain tissues, the eyes and optic nerves. This is because protons precisely target the tumor and do not travel beyond in the way X-rays do. Because less healthy brain tissue is exposed to radiation, patients experience fewer side effects.

"I wanted to be able to continue to live a life of normalcy, despite what was going on in my body. I lost a bit of hair, but I felt strong throughout the entire 6 weeks of proton therapy, and my blood work verified that I stayed healthy. I was able to go back to work and carry on with a regular life the entire time."

- Rachel, Brain Cancer Survivor