Transforming Cancer Care
with Proton Therapy.
Is Proton Therapy Right for You?

PATIENT’S GUIDE
“Whatever time I have left to live is there because of proton therapy. And I am eternally grateful and I thank God every night.”

– Bill Taylor, Bile Duct Tumor Survivor

Seattle Cancer Care Alliance
Fred Hutch • Seattle Children’s • UW Medicine
Proton Therapy Center
Welcome. An introduction to the benefits of proton therapy.

When you or a family member is diagnosed with cancer, you will probably have many questions and difficult decisions to make about treatment.

But there is good news. Many medical and technological advances and improvements have been made, which means more and better treatment options for you.

One of these advances is proton therapy. It is a very precise and effective kind of radiation treatment that, compared to standard X-ray radiation, reduces radiation to healthy tissue. It may be a good option for many patients whose doctors have recommended radiation therapy.

This brochure will walk you through the benefits of proton therapy and help you make important decisions about your treatment options.

Each person’s experience is unique. As you begin your own fight against cancer, we hope you find this brochure helpful.
At the Seattle Cancer Care Alliance (SCCA) Proton Therapy Center, you’ll benefit from innovative technologies designed to deliver proton therapy, a passion for creating a healing environment, and the experienced doctors’ and highly-skilled medical professionals’ exceptional care every step of the way. We are committed to providing patients with the best treatment possible to help them live healthy, fulfilling lives. Our Care Team focuses not only on treatment, but also on patients’ overall well-being.

To get started, please contact us at 877-897-7628 to request a consultation. Our team will help you gather the medical information needed and our physicians and other UW Medical or Seattle Children’s Hospital specialists will evaluate your case to determine if proton therapy is right for you.

Seattle Cancer Care Alliance
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Proton Therapy Center
Proton therapy: Precise radiation. Reduced side effects. More life.

X-ray vs. proton therapy.
Proton therapy and X-ray therapy both kill cancer cells by preventing them from dividing and growing. The difference between these therapies is that protons can be better controlled, depositing the greatest amount of radiation right into the tumor and then stopping, allowing patients to receive higher doses while reducing radiation to healthy tissue.

This is an especially important benefit when the tumor is located near critical organs or structures such as the brain, heart or spinal cord.

Effective therapy. Few side effects.
The proton radiation dose is designed to peak at the back of the tumor so that when it leaves the tumor, the dose falls essentially to zero. This means that, compared to X-ray therapy, excess radiation to healthy tissue is reduced, resulting in a lower risk of side effects in many cases.

Particularly effective for children.
Proton therapy can be especially beneficial for children, who can have more serious short- and long-term side effects from X-ray radiation. Since their bodies are still growing, children are more sensitive to healthy tissue damage caused by X-rays. Clinical studies suggest that proton therapy reduces the risk of growth and developmental problems, as well as secondary tumors.

For patients who require more complex treatment, our Center also offers innovative pencil-beam scanning (PBS) to deliver proton therapy. PBS “paints” a tumor with a very thin, very precise beam of protons that’s accurate within millimeters, reducing even further the amount of radiation to healthy tissue. PBS sends rapid pulses of protons to each planned spot within the tumor until the whole tumor is treated.
Is proton therapy right for you?

Proton therapy is effective in treating certain types of cancers, as well as some non-cancerous tumors and arteriovenous malformations (AVMs), which are tangles of blood vessels that sometimes occur in the brain or spinal cord. Many tumors, including those listed below, benefit from proton therapy. Other tumors may also be treated with proton therapy. Only a doctor can help you determine the best treatment approach for you.

- Brain tumors
- Prostate cancer
- Certain pediatric cancers
- Head and neck, and base-of-skull tumors
- Lung cancer
- Tumors near the spine
- Breast cancer

Proton therapy can often be used in combination with chemotherapy, as a follow-up treatment to surgery and in combination with standard X-ray radiation. You should discuss combination therapy with a radiation and a medical oncologist to decide the best treatment option.

Who benefits most from proton therapy?

Proton therapy is used for many patients, including children. The precision of protons may be particularly beneficial for patients whose tumors are near critical organs or structures (such as the brain, bladder, rectum, heart or spinal cord), patients whose cancers have recurred, and patients who cannot tolerate further X-ray radiation therapy.

Brain images comparing the amount of radiation to the tumor and healthy tissue.

Below are examples of brain tumors treated with proton therapy (below left) and standard X-rays (below right). In both therapies, the tumor is treated with radiation. However, with proton therapy, more of the healthy brain tissue surrounding the tumor and the nearby critical structures is spared. With standard X-rays, the healthy brain tissue surrounding the tumor and the nearby critical organs receive more radiation than if protons were used.
Proton therapy—technology with many significant advantages.

Benefits At A Glance

• Few short- and long-term side effects
• Effective in adults, and especially in children who are more sensitive to the effects of radiation
• Targeted, precise radiation delivery is especially important for patients with tumors near vital organs
• Improves quality of life during and after treatment

“When you get diagnosed with cancer, there are so many steps to figure out. I researched anything and everything, and all signs pointed to proton therapy.”

— Aimee Huff, Breast Cancer Survivor
Leaders in radiation oncology.

The radiation oncologists who provide clinical care at the SCCA Proton Therapy Center are all faculty of the University of Washington Department of Radiation Oncology. They will plan your course of therapy, manage your clinical care and conduct weekly check-ups to ensure that your treatment is on track.

Having trained at some of the best cancer centers in the country, including UW Medicine, Harvard, MD Anderson, University of Pennsylvania, Stanford, Georgetown, Johns Hopkins and Memorial Sloan-Kettering Cancer Center, the radiation oncologists at the UW Department of Radiation Oncology are leaders in the field and are known for clinical excellence, as well as research in cancer care.

With specializations in brain, head and neck, breast, lung, gastrointestinal, genitourinary, prostate and pediatric cancers, our physicians have the expertise to provide the highest level of medical care to patients.
What to expect.

Proton therapy is given in proton therapy centers that feature specialized, state-of-the-art medical equipment. The treatment and care is provided by doctors, medical physicists, nurses and radiation therapists who are specially trained experts. The doctor who plans proton therapy and manages your medical care is a radiation oncologist.

Most patients do not feel pain or discomfort during treatment sessions. Proton therapy is a non-invasive and painless treatment that can be performed in a proton therapy center without an overnight stay in the hospital. The time spent actually delivering the protons to the tumor is about one minute, but a treatment session can range from 15 to 60 minutes due to time spent making sure you’re in just the right position for this precise treatment. After your treatment session, you can leave and go on with your normal, daily routine.

Treatments are generally given five days a week for four to nine weeks, depending on the tumor and its location.

Few side effects.

As with all radiation therapy, there is the chance of side effects. However, most people report no or limited side effects with proton therapy. If they do occur, side effects may vary depending on the tumor location, any concurrent treatments, your general health, other current medical conditions, age and medical history. Some people experience tiredness or skin irritation. Your doctor will talk with you about the specific side effects you may experience based on your tumor’s location and your treatment plan.
Getting started.

We’ll take great care of you.

If you are a good candidate for proton therapy, we will contact you to schedule a consultation with one of the radiation oncologists at the Center. Next, we will develop a personalized and comprehensive treatment plan for you. Once the plan is finished, we will work with you to begin your treatment. If you are not a candidate for proton therapy, we will work with you and your doctor to identify other treatment options, if desired.

Comprehensive cancer care.

While you are receiving proton therapy, you may need additional medical care. The Center is affiliated with Seattle Cancer Care Alliance (SCCA) to provide these medical services, especially for patients who do not have a local doctor or hospital. SCCA is a cancer treatment center with over 300 oncologists, surgeons, radiation oncologists, and other clinicians who treat thousands of patients for many types of cancers, including brain, leukemia, lymphoma, breast, prostate, lung, and colon cancer. These services will be provided with the same dedication to excellent medical care and in the same compassionate, healing environment you will find at the Center.

Children receiving proton therapy will get special care and support from our partner, Seattle Children’s Hospital. Seattle Children’s has one of the nation’s top pediatric cancer programs. Radiation cancer doctors, along with an entire team of experts from Children’s, will work together to lead the treatment plan for your child.

“Everyone at the proton therapy center, from the front desk staff to my the nurses and doctors, always made me feel cared for.”

— Nicolle Mattingly, Brain Cancer Survivor
We care for and about you.

We understand how important it is to have a professional and personal relationship with us as you go through treatment. Your Care Team, which includes a radiation oncologist, nurse and radiation therapists, is dedicated to managing your therapy and will be there to support and guide you every step of the way. The Care Team nurse will help coordinate any other medical services you may need and will make sure your personal physician is updated regularly about your progress.

We take care of the day-to-day needs for you and your family.

We know how stressful it can be to manage life while you undergo treatment. Our Patient Services Team has extensive knowledge of local restaurants, recreational activities and spiritual places to help make Seattle feel like home for you and your family. Our team also hosts activities at the Center for patients and their families to share stories and offer each other support. If you are traveling from out of town, our team will help you find lodging and transportation during treatment.

We follow through. We follow up.

Our Intake Team will coordinate medical record exchanges and collect information needed to evaluate your individual treatment needs. Your Care Team nurse will set up consultations, appointments and follow-up care.

Our financial counselors help, too.

Our experienced counselors provide personalized help in understanding insurance coverage and payment.

We also offer:

- Convenient and flexible scheduling
- A playroom for children
- Social events for patients and families
Learn more about the support we offer.

**ONCOLOGY SOCIAL WORKER**

Our Oncology Social Worker is available to help you deal with many issues relating to cancer. Please call (206) 306-2816 or see the concierge.

- Referrals for resources
- Help in finding accommodations
- Emotional support
- Tools and therapies and for coping

**NATUROPATHIC CARE AND ACUPUNCTURE**

At SCCA Proton Therapy Center, we want you to feel as well as possible and offer holistic care by appointment. Please see the concierge or our social worker to learn how to make an appointment with our Naturopath.

- Acupuncture and Oriental Medicine
- Immune support
- Help with stress and anxiety
- Help in alleviating side effects

**SUPPORT GROUPS**

We offer support groups for patients who are interested. Free to join. Times vary. Please see the concierge for more information or call (206) 306-2028.

**CHILD LIFE SPECIALIST**

The skilled and caring expertise of a child life specialist - a pediatric health care professional who works with children and families in hospitals and other settings - can help you and your child understand what is happening.

- Explain a diagnosis or treatment in words your child or teen can understand
- Create a coping plan your child can use during the treatments
- Offer support during and after treatments
- Use play to help your child understand medical procedures and express feelings
- Work with medical staff to assess your child's unique needs
- Give you information about child development and the effects of health care
- Teach techniques to help your child cope and relax
- Offer support to help families cope with death or loss in partnership with the Journey Program

**Coming from out of town?**

If you are traveling to the Center for proton therapy, Patient Services can help you arrange for a place to stay while you receive treatment. If you need additional help or more information, Patient Services is available during regular Center hours at (206) 306-2028. You can also email us at concierge@seattleprotons.org.

Please note that the Center does not provide housing or transportation.

“I didn’t quite trust radiation. I wanted to find a treatment center that specialized in head and neck cancers, and it didn’t take me long to find SCCA Proton Therapy Center.”

— Rance Patterson, H&N Cancer Survivor
Answers to your questions.

Q: Is proton therapy experimental?
No, proton therapy is not experimental. Proton therapy was approved by the U.S. Food and Drug Administration (FDA) to treat patients in 1988. To date, more than 130,000 people worldwide have received proton therapy at centers in Europe, Asia and the United States.

Q: What kinds of studies have been/are being done to prove the effectiveness of proton therapy?
The effectiveness of proton therapy has been studied by researchers around the world. More and more studies show excellent results treating tumors with protons compared with alternative treatments. The amount of research being conducted on proton therapy is rapidly increasing as more centers open and more patient experiences become available. Ask your Care Team about clinical studies at the Center.

Q: Will my insurance cover the cost of proton therapy?
In most cases, yes. Proton therapy is covered by many private insurance carriers, Medicare and many state Medicaid programs. Specific levels of reimbursement depend on the state and site of service and health insurer. Our financial coordinators can help you navigate the process.

Q: How can I find out if proton therapy is an option for me?
Only a specialist in radiation therapy—a radiation oncologist—can decide if proton therapy could be the best option for you. The medical team will assist you in collecting the information needed for a proton therapy evaluation at the Center.

To find out more, please visit us at www.SCCAprotontherapy.com or contact the SCCA Proton Therapy Center at 877-897-7628.
We are located on the campus of UW Medicine’s Northwest Hospital & Medical Center at 1570 N 115th St. Seattle, Wash. 98133.

**Directions to Center from I-5 Northbound:** Exit I-5 at exit 173 Northgate Way. Stay in the left-hand lane and turn left at the light. Turn left again onto Northgate Way. Pass under the freeway and turn right at Meridian Avenue. Head north and turn left onto 115th. The campus is located on the right side. Enter the campus at the Main Gate (Emergency). After passing through the gates, make an immediate left. You can drop off in front of the main lobby entrance or head to the SCCA Proton Therapy Center parking lot on the left.

**Directions to Center from I-5 Southbound:** Exit I-5 at exit 173 Northgate Way. At the light, turn right onto Northgate Way. Turn right again at Meridian Avenue. Head north and turn left onto 115th. The campus is located on the right side. Enter the campus at the Main Gate (Emergency). After passing through the gates, make an immediate left. You can drop off in front of the main lobby entrance or head to the SCCA Proton Therapy Center parking lot on the left.

**Parking:** You may park next to the Center in parking spots marked “Proton Parking Only.” If all the spots are occupied, you may drop off any passengers at the front driveway and park in the parking garage located at the southeast corner of the campus (please see map).
About the SCCA Proton Therapy Center

The Seattle Cancer Care Alliance (SCCA) Proton Therapy Center is a cancer treatment center that uses precisely targeted radiation to treat cancer while preserving surrounding healthy tissue. Proton therapy is an advanced form of treatment that allows doctors to focus radiation directly into the tumor, reducing the potential for side effects. Protons are beneficial in treating a broad range of tumors, including those of the brain, central nervous system, gastrointestinal tract, head and neck, breast, lung, and prostate, as well as sarcomas and certain pediatric cancers. The SCCA Proton Therapy Center unites top physician experts in cancer from UW Medicine and Seattle Children’s Hospital. The SCCA Proton Therapy Center is located on UW Medicine’s Northwest Hospital & Medical Center campus and is the only proton therapy center in a seven-state region. For more information about proton therapy, visit www.SCCAprotontherapy.com or follow the SCCA Proton Therapy Center on Twitter @SCCAProtons and on Facebook @SCCAProtonTherapyCenter.

About Seattle Cancer Care Alliance

SCCA is a cancer treatment center that unites doctors from Fred Hutchinson Cancer Research Center, UW Medicine and Seattle Children’s. Our goal, every day, is to turn cancer patients into cancer survivors. Our purpose is to lead the world in the prevention and treatment of cancer. SCCA has six clinical sites: outpatient clinics on the Hutchinson Center campus and at EvergreenHealth, a pediatric inpatient unit at Seattle Children’s, an adult inpatient unit at UW Medical Center, and an oncology clinic and proton therapy center on the campus of Northwest Hospital & Medical Center. For more information about SCCA, visit www.seattlecca.org.