



# PROTON THERAPY: FIGHTING CANCER WITH MINIMAL SIDE EFFECTS.

(855) MY-PROTON | [mclaren.org/protontherapy](https://mclaren.org/protontherapy)

 **McLaren**  
PROTON THERAPY CENTER

 **Karmanos**  
CANCER INSTITUTE



## **WORLD-CLASS CANCER TECHNOLOGY. WORLD-CLASS PATIENT EXPERIENCE.**

If you or a loved one has cancer, the McLaren Proton Therapy Center, part of the Karmanos Cancer Network, offers the most powerful and precise radiation oncology treatment available. Our highly skilled and experienced team of cancer specialists work collaboratively to provide an individualized treatment plan for each person's unique cancer and situation.

Located in Flint, Michigan, the McLaren Proton Therapy Center features leading treatment technology and expertise to deliver proton therapy with unmatched precision. This advanced technology delivers precise doses of radiation to cancer cells while sparing healthy tissue and reducing side effects. As a result, patients experience successful outcomes and a better quality of life during and after the treatment.



## WHAT IS PROTON THERAPY?

Proton therapy is the most advanced radiation cancer treatment available. When treated with proton therapy, patients may experience minimal side effects and complications compared to traditional radiation. This is due to the physical nature of protons that allows precise delivery of radiation to the tumor target, while limiting radiation exposure to the surrounding healthy tissues.

## PROTON THERAPY IS NON-INVASIVE.

Proton therapy does not require surgery to deliver the treatment. As the patient lays on the table, radiation is delivered through protons that are directed to travel in the body, no further than the depth of the targeted tumor.

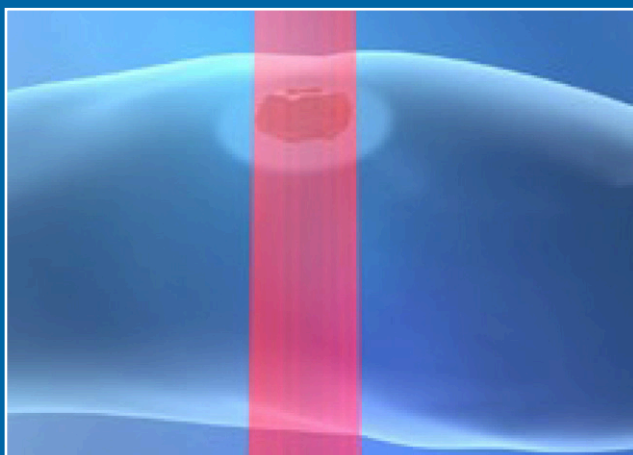
## PATIENTS EXPERIENCE MINIMAL SIDE EFFECTS WITH PROTON THERAPY.

With the advanced treatment at McLaren Proton Therapy Center, experts can deliver protons to the target tumor, while sparing healthy tissue. This is not the case with traditional X-ray radiation. During X-ray treatments, radiation is delivered to the target tumor and continues to travel through the other side of the body. This is called an exit dose. There is no exit dose with proton therapy.

We can precisely deliver proton radiation doses that stop at the depth of the tumor. This spares nearby organs from unnecessary radiation. By not delivering radiation to those organs, many patients experience minimal side effects and complications. This also means less trips to the hospital during and after proton therapy treatment.

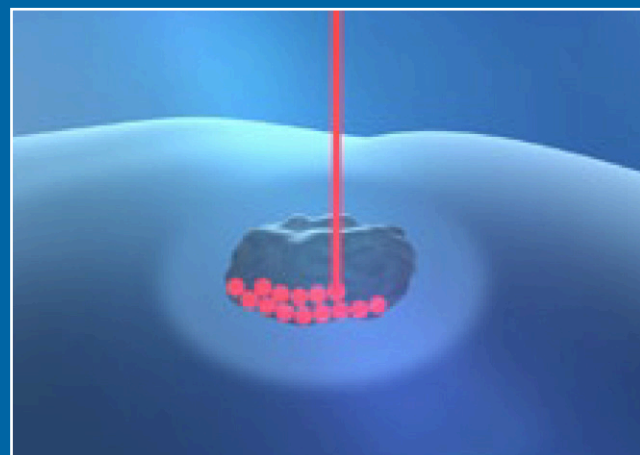
## PROTON THERAPY RESULTS IN A BETTER QUALITY OF LIFE DURING AND AFTER TREATMENT.

Patients that go through proton therapy treatment often can maintain a healthy and productive life. Many patients continue the activities they love daily during treatment. Proton therapy also reduces the probability of the return of cancer due to the ability to spare healthy tissue. This is especially important when treating pediatric cancer patients.



**TRADITIONAL X-RAY (PRODUCES EXIT DOSE)**

VS



**PROTON THERAPY (PRODUCES NO EXIT DOSE)**

The above images illustrate the radiation benefits of proton therapy (right) in sparing healthy tissues compared to traditional X-ray (photon) therapy (left). Proton therapy deposits a high dose of radiation at the tumor and stops; this eliminates any "exit dose" of radiation, therefore reducing the risk of side effects in patients.



## IS PROTON THERAPY RIGHT FOR ME?

Every person's cancer is unique. That is why, after your diagnosis, our specialists at McLaren provide you with all of the necessary information to help you decide if proton therapy is appropriate for your treatment.

Standard cancer treatment options for patients include surgery, chemotherapy and radiation therapy. While all of these options may offer varying levels of benefit for a cancer patient, proton therapy is often considered more effective against localized cancers.

Proton therapy most often treats solid tumors in sensitive areas where conventional therapy may not be considered the best option. This includes tumors that are close to critical structures, difficult to treat cancers and cancer that have returned after receiving previous radiation.

## CANCERS TREATED BY PROTON THERAPY.

Proton therapy is not appropriate for all cancers, but is particularly applicable to treat certain cancers, including:

- Bladder Cancer
- Brain and Central Nervous System Cancer
- Breast Cancer
- Esophageal Cancer
- Gynecological and Gastrointestinal Cancer (select cases)
- Head, Neck, and Skull Base Cancer
- Kidney Cancer
- Lymphoma
- Liver Cancer
- Lung and Thorax Cancer
- Pancreatic Cancer
- Pediatric, Adolescent and Young Adult Cancer
- Prostate Cancer
- Sarcoma
- Spine and Chest Wall Cancer

Proton therapy is also beneficial for pediatric, adolescent and young adult patients. The ability to spare healthy organs and tissue surrounding the cancer site reduces the chances of developmental problems and recurrent cancer later in life.

## WHAT TO EXPECT.

When you are ready to decide, give us a call to start the process of finding out if proton therapy is the best treatment option for you. Our team works to streamline your care and make the treatment process as convenient and relaxed as possible.

### YOU CAN EXPECT TREATMENT TO INVOLVE THE FOLLOWING STEPS:

- Pre-appointment case review
- Consultation: Meet your radiation oncologists and our proton patient navigator
- Simulation
- A collaborative team of physicians, physicists, dosimetrists and other experts design and optimize your treatment plan
- Treatment
- Coordination of follow-up care

## TREATMENT.

The beam of protons is delivered for several minutes per session. You will typically spend less than an hour at the Proton Center, from when you walk through the door until the completion of your treatment session. Proton therapy patients receive daily outpatient treatments for a number of weeks, depending on their individual case (tumor type, location, size, etc.). With experiencing minimal side effects, most patients feel well enough to continue with their normal, daily activities during the treatment period.

## CARING FOR ALL YOUR NEEDS.

We understand the importance of addressing the nonphysical challenges that can often accompany a cancer diagnosis. We are here to help with the support services:

- Our intake specialist coordinates and streamlines the intake process. This professional is specially trained to address the unique needs of cancer patients and serve as a resource for all your questions and concerns.
- A registered dietitian is available to provide nutritional counseling, plan an optimal diet during treatment and help patients cope with any side effects.
- A certified art therapist is available to help patients and families cope with a cancer diagnosis, treatment and other related issues through the creative process of art.
- A number of support groups are offered for patients and anyone who is touched by cancer. These support groups may take place on the McLaren Proton Therapy Center and the Karmanos Cancer Institute campus at McLaren Flint, or online.
- Spiritual support is available to patients and their families, with chaplain representation across many faiths.
- Yoga, Tai Chi, Zumba and other wellness classes are available.
- Financial counseling and assistance is available. Our team advocates on behalf of patients to define benefits with insurance providers.
- Assistance for families who are interested in paying directly for care is also available.

**Find out if proton therapy is right for you.  
Call our Proton Patient Navigator today: (855) MY-PROTON.**

**YOUR  
ACCESS  
TO AN  
A-TEAM.**

## **A TEAM OF RECOGNIZED EXPERTS.**

The cancer-fighting technology at the McLaren Proton Therapy Center is truly revolutionary, and the team of experts behind it is just as impressive. We're very proud of our highly accomplished and experienced staff that includes leading radiation oncologists and physicists, as well as other key medical professionals.

These experts are constantly pushing the frontiers of this technology, conducting critical research that will help to further advance this cutting-edge therapy, while keeping their primary focus on destroying the cancer and providing patients with the best possible quality of life. This focus on medical expertise is blended with an emphasis on providing emotional, social and spiritual support for patients and their families.



**Dr. Hesham Gayar**  
Medical Director



**Dr. Omar Gayar**  
Radiation Oncologist



**Dr. Christian Hyde**  
Radiation Oncologist

## **PART OF THE KARMANOS CANCER NETWORK**

The McLaren Proton Therapy Center is part of the Karmanos Cancer Network, the largest cancer research and provider network in Michigan with 16 treatment locations throughout the state. Karmanos Cancer Institute, headquartered in Detroit, is a McLaren Health Care subsidiary, and one of two National Cancer Institute-designated comprehensive cancer centers in Michigan. It is one of just 50 cancer centers of its kind in the United States. McLaren Proton Therapy Center radiation oncologists work closely with Karmanos physicians to find the best treatment options for each patient.

## **CLINICAL TRIALS**

Patients at the McLaren Proton Therapy Center have access to treatments exclusive to Karmanos Cancer Institute, as well as clinical trials, cancer prevention programs and multidisciplinary teams of cancer specialists. Karmanos is recognized as a national leader in research, advanced treatments and the latest types of therapy.

Proton therapy patients at McLaren Proton Therapy Center may also participate in national clinical trials through the Proton Collaborative Group (PCG). PCG's primary mission is to improve the survival outcomes of cancer patients and their quality of life.



## A HOME-AWAY-FROM-HOME. THE HOSPITALITY HOUSE AT McLAREN.

Located adjacent to McLaren Proton Therapy Center, the Hospitality House at McLaren provides comfortable, extended-stay housing at minimal to no cost for patients and their families. This home-away-from-home creates a healing, caring and comfortable environment for patients and their caregivers who are traveling long distances for treatment. The House offers activities, programs, quiet spaces and an array of amenities.



Patients receiving proton therapy require treatment daily for a number of weeks. The Hospitality House at McLaren is designed with this in mind and provides easy access to treatment, support services and care for other medical needs.

**THE HOSPITALITY HOUSE AT McLAREN**  
G-3170 Beecher Rd. | Flint, MI 48532  
[mclaren.org/hospitalityhouse](http://mclaren.org/hospitalityhouse)  
To make a reservation, call (810) 820-9800.



**FREQUENTLY ASKED QUESTIONS:**

**DO I HAVE TO HAVE A DOCTOR'S REFERRAL?**

You do not have to have a doctor's referral to receive treatment at the Proton Center.

**DOES INSURANCE COVER PROTON THERAPY?**

Medicare and most major insurance carriers in the U.S. cover proton therapy. Our team advocates on behalf of patients to define benefits of proton therapy with insurance providers. We also offer financial counseling and assistance.

**CAN YOU WORK WITH MY MEDICAL ONCOLOGIST? WHAT RELATIONSHIP DO YOU HAVE WITH MY OTHER HEALTH PROVIDERS?**

We work closely with your medical oncologist and other healthcare providers to coordinate your overall care. When your treatment is complete, you may return to your local physician for most follow-up care.

**PATIENTS LOVE TELLING THEIR STORIES.**

View their journeys with cancer and proton therapy treatments at [mclaren.org/protontherapy](https://mclaren.org/protontherapy).

**TALK TO OUR PROTON PATIENT NAVIGATOR.**

If you are ready to explore the option of proton therapy at the McLaren Proton Therapy Center, give our Proton Patient Navigator a call today at (855) MY-PROTON.

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**YOUR BEST CHANCE.**