The future of radiation therapy
Safe and innovative options, including the CyberKnife® System
Could a nonsurgical treatment be right for you?

When you’ve been diagnosed with a cancerous or noncancerous tumor, it’s natural to have questions and concerns about your treatment options. While surgery is sometimes the recommended treatment, in many cases, there are nonsurgical options. At CyberKnife® of Long Island, we offer noninvasive radiation therapy treatments that provide benefits over traditional surgery, including:

- More comfort
- Better accuracy
- Fewer side effects
- Quicker recovery times

With two locations in western Suffolk, our services are also close to home.
You have an experienced and trusted team dedicated to your treatment

At CyberKnife of Long Island, you can be confident that you’re being treated by experts in cancer care.

- For almost two decades (originally as North Shore Radiation Therapy), we have been using innovative technology to treat a wide variety of cancers, including prostate, lung, brain, skin, breast, head and neck, spinal and rectal tumors.

- We are the first in Suffolk County to use CyberKnife and have been treating patients with the technology since 2008. CyberKnife is a precise, painless procedure that delivers higher doses of radiation because there’s less of a chance of healthy tissue being damaged.

- Our focus on patient- and family-centered care means that you and your family members play a key role in developing treatment plans based on your unique needs.

- We meet — and in many cases, go beyond — industry standards for radiation oncology.

- Our radiation oncologists have decades of experience caring for patients in your community, hold additional certification in the use of the CyberKnife System, speak at international meetings and publish in medical journals worldwide.

Gain the advantage of comprehensive, innovative care

CyberKnife of Long Island is part of the Northwell Health Cancer Institute, one of the largest cancer programs in the New York metropolitan area.

We work with a wide range of cancer specialists (nearly 200 members in over 25 different specialties).

Patients have access to a robust research and clinical trials program and an array of cancer support services — as well as a vast range of primary care physicians, specialists, emergency rooms, imaging centers, laboratories, home care and hospice.

We are a member of the Northwell Health Department of Radiation Medicine. As one of the most innovative radiation medicine groups in the area, we provide services for both adult and pediatric patients, state-of-the-art technology and quality care through evidence-based treatment and one-of-a-kind patient safety programs.
Get to know your nonsurgical treatment options

We offer a range of radiosurgery and radiation therapy options. Our experienced radiation oncologists have the training and experience to choose the most appropriate treatment option for each patient.

Our solutions include:

– **Stereotactic radiosurgery/body radiation therapy (SRS/SBRT)** — A specialized type of external beam radiation therapy that uses focused radiation beams, targeting a well-defined tumor, to deliver the highest possible radiation dose with pinpoint accuracy. The benefits of SRS/SBRT are fewer treatments, fewer side effects and enhanced comfort.

– **3-dimensional conformal radiotherapy (3D-CRT)** — Combines multiple radiation treatment fields to deliver precise doses of radiation. It sends a high dose of radiation to tumors but attempts to avoid healthy tissue.

– **Intensity-modulated radiation therapy (IMRT)** — One of the recent advances in the delivery of radiation. IMRT differs from 3D-CRT by modifying the intensity of the radiation within each of the radiation beams and allows delivery of higher doses of radiation to tumors, especially those near vital areas, while lowering doses to nearby healthy tissue.

– **Rapid arc radiation therapy** — Radiotherapy technology that provides a treatment in two minutes or less by delivering a dose in a single arc around the patient. This allows us to target the entire tumor while sparing normal, healthy tissue.

– **Image-guided radiation therapy (IGRT)** — Uses X-ray imaging during treatments to locate and focus radiation beams more precisely on tumors. IGRT enables doctors to make real-time adaptations to the treatment plan.

– **4-dimensional simulation** — Used for simulation of respiratory gating procedures to monitor the tumor’s movement as the patient breathes. This allows treatment with a high dose of radiation to cancerous tumors while sparing a larger volume of healthy tissue.

– **Brachytherapy and high dose rate (HDR) brachytherapy** — Radioactive material, sealed in needles, seeds, wires or catheters, or in unsealed sources, is placed directly into or near a tumor. Brachytherapy is used for treating breast, skin and gynecological malignancies with highly targeted doses of radiation over a short period of time.

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**State-of-the-art technology**

– CyberKnife Robotic Radiosurgery System

– Varian Real-Time Position Management™ (RPM) System, GE Advantage 4D

– Varian RapidArc® Radiotherapy Technology

– MammoSite® Radiation Therapy System

– Contura® MLB Catheter
Learn the advantages of CyberKnife

The CyberKnife System is actually not a knife at all. It’s a computer-controlled, robotic radiation delivery system that is on the leading edge of technology.

CyberKnife is a stereotactic radiosurgery procedure, which is becoming the standard of care for many kinds of tumors that involves no incisions, cutting or anesthesia. It is used to treat a wide range of tumors and cancers. Radiosurgery does not remove the tumor lesions. Instead, it uses high doses of focused radiation to destroy tumor cells and stop the growth of cancer cells.

How it works

CyberKnife continuously and automatically tracks the tumor and patient’s position, including movement that occurs while breathing. This information guides and positions radiation beams to precisely target the tumor, while carefully sparing the surrounding healthy tissue.

Radiation can then be targeted with pinpoint accuracy, from virtually any direction or angle. CyberKnife treatments require no recovery time and have fewer complications than traditional surgery. Patients can go home or back to normal activities the very same day. Treatment is usually completed in under a week (one to five office visits).

What you need to know

– CyberKnife is so precise that higher doses of radiation can be delivered because there’s less of a chance of healthy tissue being damaged. This reduces the duration and number of treatments.

– CyberKnife is an outpatient procedure, so you come to our office and not to a hospital.

– There’s no sedation and no incisions. In some cases, we may need to place tiny pellets (called fiducial markers) into the tumors so they’re easier to spot, but that’s a minor procedure.

– Each treatment, which can take as little as 30 to 45 minutes, feels like an X-ray. There’s no pain or sensation.

– Side effects are minimal. You won’t feel sick or a burning sensation, and you won’t lose your hair.

– Stereotactic radiation procedures such as CyberKnife are covered by many insurance companies.

– If you’ve already received radiation therapy, you might still be a candidate for CyberKnife for future treatment.
Learn more or make an appointment
If you have questions about a cancer diagnosis, CyberKnife or one of our other treatment options, schedule an appointment with one of our experts by calling us at (877) LICYBER (542-9237). Next-day appointments are available.

For more information about our services, please visit Northwell.edu/cyberknifeofli.
About Northwell Health Cancer Institute

Northwell Health Cancer Institute is one of the largest cancer programs in the New York metropolitan area.

Our multidisciplinary team is made up of expert physicians, experienced support staff and caring social workers — all dedicated to giving each one of our patients revolutionary care. And we’re constantly working on advanced treatments and cutting-edge procedures through our extensive clinical trials and research programs.

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