SAFE AND INNOVATIVE RADIATION THERAPY

Advanced treatment options including the CyberKnife® System

North Shore-LIJ Cancer Institute
North Shore Radiation Therapy, CyberKnife of Long Island
If you need treatment for cancer or non-cancerous tumors, surgery might not be necessary.

At North Shore Radiation Therapy / CyberKnife of Long Island, part of the North Shore-LIJ Cancer Institute, we offer non-invasive 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.

An Experienced and Trusted Team

North Shore Radiation Therapy is a leader in treating cancer.

- Cancers we treat include prostate, lung, brain, skin, breast, head and neck, spinal and rectal tumors.
- 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 exceed — 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.
Comprehensive Care at the North Shore-LIJ Cancer Institute

North Shore Radiation Therapy is part of the North Shore-LIJ 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 North Shore-LIJ Department of Radiation Medicine. As one of the most innovative radiation medicine groups in the area, the Department of Radiation Medicine:

- Provides a wide range of services to adult and pediatric patients
- Uses state-of-the-art technology
- Ensures quality care through evidence-based treatment and one-of-a-kind patient safety programs
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 delivers 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 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
CyberKnife: Painless and Precise Treatments without Surgery

The CyberKnife System is not actually a knife — it’s a computer-controlled, robotic radiation delivery system. CyberKnife boasts cutting-edge technology.

- CyberKnife continuously and automatically tracks the tumor and patient’s position, including the movement that occurs while breathing.
- This information guides and positions the radiation beams to precisely target the tumor, while carefully sparing the surrounding healthy tissue.
- Radiation can be targeted with pinpoint accuracy, from virtually any direction or angle.

CyberKnife is a stereotactic radiosurgery procedure, which is becoming the standard of care for many kinds of tumors.

- No incisions, cutting or anesthesia are required.
- Radiosurgery is used to treat a wide range of tumors and cancers.

- Radiosurgery does not remove the tumor or lesions; instead, it uses high doses of focused radiation to destroy tumor cells and stop the growth of cancer cells.

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).
The Advantages of CyberKnife

- 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, not 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, feel a burning sensation or 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 1-877-LICYBER. Next-day consultations are available.

For more information about our services, please visit www.nslij.com/cyberknife.
About the North Shore-LIJ Cancer Institute

North Shore-LIJ Cancer Institute is one of the largest cancer programs in the New York metropolitan area. Our multidisciplinary teams develop individualized treatment plans that address patients’ physical and emotional needs. As the most important member of our team, patients receive personal attention and unsurpassed compassion. We seek newer, better and more effective ways to treat cancer through our robust clinical trials and research programs. Our patients benefit from state-of-the-art technologies, highly specialized diagnostic and surgical techniques and the newest, most promising treatments.

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