

Stereotactic Radiation Therapy

What is stereotactic radiation therapy?

Radiation therapy is a treatment for multiple tumor types that is non-surgical and non-invasive. Stereotactic radiation therapy (SRT) specifically is a way to deliver high doses of radiation therapy to tumors with extreme precision, allowing for increased effectiveness and efficiency. This approach maximizes the impact on the tumor while sparing the nearby healthy tissue. It can be delivered in 1-5 sessions, making it more convenient than typical intent-to-treat radiation therapy.

What kind of tumors can be treated with SRT?

- Head and Neck Tumors
- Oral melanomas, oral fibrosarcomas, nasal tumors, squamous cell carcinomas
- Brain Tumors
- Meningiomas, pituitary tumors
- Thyroid Tumors
- Spinal Tumors
- Osteosarcomas
- Pelvic Canal Tumors
- Liver Tumors
- Pancreatic Tumors
- Lung Tumors
- Kidney Tumors

Note: SRT needs to be delivered **IN LIEU OF** or **PRIOR** to surgery. If you have a tumor that will be difficult to remove surgically, please contact us to discuss radiation therapy treatment options.

How does SRT work at ISU?

Using live phone and video conferencing, our medical oncologists consult with our radiation oncologist, Dr. Mike Nolan, to determine a treatment plan for each patient's tumor. The following steps outline this process:

- A CT scan is obtained at ISU to determine the extent and borders of the tumor; during this "planning CT" the patient will be placed in devices to position them exactly the same way during subsequent treatments. This may include shaving fur and placing markers in key positions.
- This CT scan is loaded into treatment planning software and a 3D model is created.
- Dr. Nolan then evaluates this 3D model to plan the best radiation approach to treat the tumor while sparing the surrounding normal tissue.
- This plan is then uploaded into the linear accelerator located at ISU.
- The plan is delivered over 1-5 treatments, each under a short general anesthetic episode

What Other Tumors Can be Treated with Definitive Radiation Therapy?

- Feline Nasal Lymphoma
- Incompletely Excised Mast Cell Tumors
- Incompletely Excised Soft Tissue Sarcomas