At Sylvester, we strive to be at the cutting edge of precision radiotherapy technology. That’s why we acquired a MRIdian® by ViewRay,® which combines magnetic resonance imaging and external beam radiation therapy to image and treat cancer patients.

Synchronizing Motion and Radiation Therapy

Many of the body’s functions—such as breathing, cardiac motion, and gastro-intestinal contractions—experience significant motion during radiation therapy, making accurate targeting of tumors challenging. However, with the MRIdian®, in real time, we can achieve high-contrast soft tissue images that more clearly delineate tumors from surrounding sensitive organs before and during radiation treatment. This allows us to target tumors and to calibrate radiation doses with more precision, helping us to minimize irradiation of nearby normal tissues, and, potentially, to improve tumor cure.
MRI-Guided Radiation Therapy with the MRIdian® at Sylvester

Cancers that we treat include:
- Brain
- Breast
- Eye
- Gastrointestinal
- Gynecological
- Head and Neck
- Lung
- Lymphoma
- Prostate

Adapting Radiation to Changes in Patients’ Daily Anatomy

Equipped with a 0.35T magnet, the MRIdian® system provides high resolution images that help our clinicians determine the daily position of tumors and adjacent sensitive organs with better accuracy in real time. In some areas of the body, for example, the abdomen, the daily position of a tumor can vary significantly. During a patient’s treatment session, the MRIdian® can recalibrate the daily dose delivery in accordance with these positional changes.