

Radiation Therapy Options

All radiation therapies disrupt tumor cell replication and destroy tumor cells.¹ Treatment timing, the number of treatments required, and the potential for side effects may differ based on the therapy and the way the radiation is delivered (internal/external). It's important to understand the differences as you evaluate your options.

RADIATION THERAPIES AT A GLANCE



BRACHYTHERAPY

EXTERNAL BEAM RADIATION THERAPY (EBRT)

GAMMATILE THERAPY²⁻⁴

SURGICALLY TARGETED RADIATION THERAPY (STaRT)

PHOTON/IMRT RADIATION THERAPY⁵

PROTON BEAM THERAPY⁶⁻⁸

STEREOTACTIC RADIOSURGERY/RADIOTHERAPY^{5,6,9}

RADIATION SOURCE

INTERNAL

Collagen GammaTiles embedded with radiation sources are placed at the end of tumor brain removal surgery. Each tile is about the size of a postage stamp.

EXTERNAL

X-ray beams travel from a machine through the skin, skull, and brain tissue.

EXTERNAL

Proton beams travel from a machine through the skin, skull, and brain tissue, stopping after they reach the tumor.

EXTERNAL

X-ray beams travel from a machine through the skin, skull, and brain tissue.

DAILY OUTPATIENT TREATMENTS

NO

Outpatient treatments are not required.

YES

Up to 30 daily outpatient treatments over 6 weeks may be required.

YES

Up to 30 daily outpatient treatments over 6 weeks may be required.

YES

Up to 5 outpatient treatments may be required.

BRAIN TUMOR TYPES TREATED

Operable Gliomas
Recurrent meningiomas
Brain metastases
and more

Operable or inoperable Gliomas
Meningiomas
Brain metastases
and more

Operable or inoperable Gliomas
Meningiomas
Brain metastases
and more

Operable or inoperable Gliomas
Meningiomas
Brain metastases
and more

TREATMENT DELAY

NO

Treatment begins at the surgery and continues as you go about your daily life.

YES

Treatment may be delayed for weeks while the surgical wound heals and may be further delayed for rehab.

YES

Treatment may be delayed for weeks while the surgical wound heals and may be further delayed for rehab.

YES

Treatment may be delayed for weeks while the surgical wound heals and may be further delayed for rehab.

POTENTIAL FOR HAIR LOSS

UNLIKELY

GammaTile Therapy radiation does not travel from the outside through the scalp, like external radiation.⁴

YES

YES

YES

REFERENCES

1. How radiation therapy is used to treat cancer. American Cancer Society. <https://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation/basics.html>. Updated December 27, 2019. Accessed May 7, 2022. 2. GammaTile Therapy Instructions for Use. GT Medical Technologies; 2020. 3. Brachman D, Youssef E, Dardis C, Smith K, Pinnaduwage D, Nakaji P. Surgically targeted radiation therapy: safety profile of collagen tile brachytherapy in 79 recurrent, previously irradiated intracranial neoplasms on a prospective clinical trial. *Brachytherapy*. 2019;18(3):S35-S36. 4. Gessler DJ, Ferreira C, Dusenbery K, Chen CC. GammaTile®: surgically targeted radiation therapy for glioblastomas. *Future Oncol*. 2020;16(30):2445-2455. 5. Brain tumors: radiation therapy. Johns Hopkins Medicine. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/brain-tumor/brain-tumors-radiation-therapy>. Accessed September 26, 2022. 6. Radiation therapy side effects. American Cancer Society. <https://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation/effects-on-different-parts-of-body.html>. Updated December 10, 2022. Accessed May 7, 2022. 7. Proton beam therapy. Macmillan Cancer Support. <https://www.macmillan.org.uk/cancer-information-and-support/treatment/types-of-treatment/radiotherapy/external-beam-radiotherapy/proton-beam-therapy>. Accessed February 4, 2022. 8. Proton therapy. MedlinePlus: National Library of Medicine. <https://medlineplus.gov/ency/article/007281.html>. Updated May 27, 2020. Accessed May 7, 2022. 9. Stereotactic radiation therapy. RT Answers. <https://rtanswers.org/how-does-radiation-therapy-work/stereotactic-radiation-therapy>. Accessed May 7, 2022.

Indication: GammaTile is indicated as a treatment for patients with newly diagnosed malignant intracranial neoplasms and patients with recurrent intracranial neoplasms. Side effects related to GammaTile Therapy are rare, and may include radiation brain changes including necrosis. Refer to the GammaTile Instructions for Use for a complete description of all warnings, precautions, and contraindications.

©2023 GT Medical Technologies, Inc. | All rights reserved | MKT-245-1

Learn more about GammaTile Therapy | gammatile.com

