The **GOLD STANDARD** for radiosurgery treatment of the brain

Exclusively At **KETTERING MEDICAL CENTER**
The Wallace-Kettering Neuroscience Institute at Kettering Medical Center is one of the first hospitals in the world to use the most advanced radiosurgery treatment for brain disorders. Gamma Knife Perfexion™ radiosurgery is actually not a knife but uses highly focused gamma radiation beams to treat brain tumors and other brain abnormalities. This one session treatment is delivered with the highest level of accuracy, precision, and unmatched computerized planning. It reduces risks associated with conventional surgery and minimizes harm to nearby healthy brain tissue.

Gamma Knife radiosurgery was developed to treat brain abnormalities and is recognized as the gold standard for brain radiosurgery treatment with over 500,000 patients treated worldwide. Kettering Medical Center has offered this world class technology since 1999. Our experienced Gamma Knife Perfexion team is available to treat you right here in Dayton.

### Conditions Treated by Gamma Knife

You may be a candidate for Gamma Knife treatment with our experienced team if you have any of the following conditions:

- **Metastatic Tumors** – Tumors that have spread to the brain from cancers in other parts of the body
- **Benign Brain Tumors** – Acoustic Neuromas, Meningiomas and Pituitary
- **Other Malignant Brain Tumors**
- **Trigeminal Neuralgia** – Excruciating facial pain
- **Arteriovenous Malformations**
- **Inoperable Brain Abnormalities** – Brain conditions where traditional surgery is not an option

### Benefits of Gamma Knife Perfexion

- **One treatment session**
- **Outpatient treatment** – No hospital stay!
- **Greater patient comfort** - You can lie down, listen to music and relax during treatment
- **Shorter treatment times**
- **No surgical incision**
- **No general anesthesia**
- **Unmatched accuracy** for brain abnormalities
- **Multiple brain tumors can be treated in one session**
- **Return to normal activities by the next day**
Neurosurgeons
Jamal Taha, M.D., Medical Director of Gamma Knife, is board certified in both neurosurgery and pain medicine and serves as Medical Director of the Office of Technology Development at Kettering Medical Center.

Raymond J. Poelstra, M.D., graduated from Baylor College of Medicine in 1977 where he was a Presidential Scholar. Dr. Poelstra is Medical Director of Neurosurgery at Kettering Medical Center.

Phillip Porcelli, D.O., attained his medical degree in southern California at Western University of Health Sciences/College of Osteopathic Medicine.

Jonathan Borden, M.D., is a board-certified Neurosurgeon of the brain and spine. Dr. Borden completed his training at Tufts-New England Medical Center in Boston and attended Yale University School of Medicine.

Radiation Oncologists
Douglas Einstein, M.D., PhD, is the Co-Medical Director of Gamma Knife and Medical Director of Radiation Oncology at Kettering Medical Center. He earned his MD and PhD degrees from the Albert Einstein College of Medicine in New York.

Louis C. Keiler III, M.D., board-certified Radiation Oncologist earned an MD from University of Illinois at Chicago College of Medicine, Chicago, IL, and a BS in Biomedical Engineering from Johns Hopkins University, Baltimore, MD.

Aimee G. Russell, M.D., earned her MD degree at the University of Minnesota. She was an intern at the Mayo Clinic in Rochester, MN, after which she returned to the University of Minnesota to complete her training in Radiation Oncology.

Gamma Knife Coordinator
Diane Kessack, R.N., B.S.N., is a graduate of the Registered Nurse program at St. Joseph Infirmary, Louisville, Kentucky.
What to Expect on Treatment Day

**Frame placement** – We place a frame on your head using local anesthesia and mild sedation. This keeps your head still during treatment. It makes the Gamma Knife treatment very precise.

**Imaging** – You will have an MRI or other tests. These images help your doctor plan your gamma knife treatment.

**Planning** – Our experienced staff uses the MRI or other tests to determine how to plan the most accurate treatment for you, and the right radiation dose.

**Treatment** – You will simply lie on the bed, listen to music, and receive your treatment. You won’t hear, see or feel the treatment. The Gamma Knife Perfexion will be treating your condition with world class precision. The treatment time varies from a few minutes to a couple of hours.

Frequently Asked Questions

**What is radiosurgery?**

Instead of a surgical incision, radiosurgery delivers **highly focused** radiation beams to an abnormality in the brain. **Precision and accuracy** in the brain is important to make sure only the abnormality is treated and healthy tissue is not disturbed.

**Why do doctors and patients prefer Gamma Knife?**

- Patient-centered, science-driven
- Gamma Knife is the **gold standard**. All other radiosurgery treatments are compared to the Gamma Knife.
- Gamma Knife was developed to treat brain abnormalities and offers the **most accurate**, pin-point radiosurgery treatment.
- No interruption of other treatments, like chemotherapy
- **Proven treatment** with over 500,000 cases treated worldwide
- Gamma Knife Perfexion can reach all brain abnormalities during the same treatment session.