What is Gamma Knife?

Not actually a knife, the Leksell Gamma Knife® Perfexion™ is a stereotactic radiosurgery device designed solely for the treatment of brain and head/neck diseases. This highly sophisticated technology precisely directs up to 192 beams of focused radiation to specific targets while sparing the healthy surrounding tissue from treatment.

Typically performed in a single outpatient treatment session without general anesthesia, this proven procedure helps patients avoid incisions, blood loss, scarring and long hospital stays while minimizing surgical complications.

Treatment with the Gamma Knife Perfexion is often the preferred method for patients who are not candidates for conventional neurosurgery or radiation therapy, or do not wish to undergo those treatment options. It is also recommended as an additional therapy for individuals who have already undergone surgery, chemotherapy or other forms of radiation therapy and still require further treatment.

Gamma Knife radiosurgery has been in use for over 40 years and has treated over 700,000 patients worldwide. The combination of this long history, the extreme accuracy of the system and over 3,000 peer-reviewed clinical articles supporting its use, makes Gamma Knife the ‘Gold Standard’ in intracranial radiosurgery to which all other stereotactic radiosurgery devices are measured.

The only Gamma Knife Perfexion system located in the state of Arkansas is located at UAMS in Little Rock.

uamshealth.com/gammaknifesurgery
Indications for Gamma Knife® Treatment:

The Leksell Gamma Knife Perfexion is a non-invasive radiosurgery tool dedicated to the treatment of brain tumors and disorders. It uses finely-focused beams of radiation to target abnormalities in the brain without open surgery. Gamma Knife Radiosurgery has been used around the world to treat the following indications:

**Malignant Brain Tumors:**
- Brain Metastasis (cancer spread to the brain)
- Malignant Glial Tumor (Grade III & IV)
- Malignant Glomus (Grade III & IV)
- Chondrosarcoma
- Nasopharyngeal Carcinoma
- Other Malignant Tumors

**Benign Brain Tumors:**
- Acoustic Neuroma (Vestibular Schwannoma)
- Trigeminal Schwannoma
- Other Schwannoma
- Benign Glial Tumors (Grade I & II)
- Meningioma
- Pituitary Adenoma (Secreting & Non-secretting)
- Pineal Region Tumor
- Hemangioblastoma
- Hemangiopericytoma
- Craniopharyngioma
- Chordoma
- Glomus Tumor (Grade I & II)
- Other Benign Tumors

**Functional Disorders:**
- Trigeminal Neuralgia (Tic Douloureux / Facial Pain)
- Cluster Headache (classic)

**Vascular Disorders:**
- Arteriovenous Malformations (AVMs)
- Cavernous Malformations

**Ocular Disorders:**
- Uveal Melanoma

**Current Research Indications:**
- Epilepsy
- Essential tremor
- Parkinson's Disease
- Glaucoma
- Intractable pain
- Obsessive Compulsive Disorder (OCD)

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**HOW TO REFER A CASE FOR CONSULTATION**

Our Gamma Knife Center welcomes referrals for review by our multidisciplinary treatment team through our Gamma Knife Case Conference, where we discuss each individual case’s appropriateness for Gamma Knife treatment.

To refer case for review, please contact our Gamma Knife Coordinator, Karen Baxter-Rhoades who will assist you with this process and gather the necessary information for a case review:

Phone: (501) 603-1800
Email: BaxterrhoadesKarenL@uams.edu

Once the case has been reviewed, we will communicate with the referring physician any necessary information. If the patient is appropriate, he or she will be scheduled for a treatment day. Notes on the treatment and follow up instructions will also be sent to referring physicians. As a team treatment technique, we understand the importance of collaboration for high quality patient care, and want each physician to feel as if he or she is an integral part of the treatment process.