

LSU Health Sciences Center-Shreveport
Gamma Knife
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Gamma Knife
Department of Neurosurgery
Scope of Service

Louisiana State University Health Sciences-Shreveport obtained the first Gamma Knife in Louisiana and treated its first patient in January of 2000. In conjunction with the department Radiation Oncology, the Department of Neurosurgery offers patients technology previously unavailable in Louisiana. This technology is offered to patients with a variety of indications including benign and malignant brain tumors, arteriovenous malformations, trigeminal neuralgia, and movement disorders.

Patients are initially evaluated in a clinic setting by the neurosurgeon. Once the Neurosurgeon determines that the patient is a candidate for gamma knife radiosurgery, scheduling of their procedure is done by the Gamma Knife nurse. Each patient is scheduled for a preoperative visit where all necessary lab work and tests are obtained, a history and physical is performed by a physician assistant, and patient films and history are reviewed by all members of the Gamma Knife Team including the Radiation Oncologist and Radiation Physicist.

The Gamma Knife treatment is administered on an outpatient basis, but in-patient services are available if needed. Patient education and one-on-one care is provided by a certified Gamma Knife Neurosurgery nurse. Each procedure is performed by the Gamma Knife team including the attending neurosurgeon, radiation oncologist, and radiation physicist.

Following each procedure, patients are meticulously followed. Each patient will be seen by the neurosurgeon in a clinic setting at varying intervals determined by their diagnosis. Malignant tumors are followed with new MRI at three months, and every three months thereafter by Neurosurgery or by the patient's original Hematology/Oncology physician. Benign tumors and arteriovenous malformations are followed by MRI and clinic appointments at six months, one year, two, and three years. At the time that the AVM is no longer visible by MRI, each AVM patient will undergo cerebral arteriogram to determine that the AVM is obliterated. Trigeminal neuralgia patients are clinically followed at two months post procedure and then on an as needed basis.

Written: 2007

Reviewed:

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