

Laser interstitial thermal therapy (LITT) is an established technique and tool in the surgical treatment of patients with medication-resistant epilepsy.

LITT is not experimental. The US FDA approved the use of MRI guided LITT system for ablation in neurosurgery in 2007. The FDA approval of LITT noted that this technology was well-established in the treatment of soft tissue lesions in other parts of the body. There is a long history of treating epilepsy by ablating brain tissue, and the guidance of LITT with magnetic resonance thermography (MRT) was a significant advance. LITT is also widely used for brain tumor ablation, and considered by many to be the standard of care in appropriately selected patients with epilepsy and/or brain tumors.

MRT-guided LITT and open surgery should both be considered therapeutic options for patients with medial temporal lobe epilepsy and other localization-related epilepsies. The treatment is selected by a multidisciplinary epilepsy team based on clinical factors and the risks, benefits, and tolerability of each approach in a patient-centered approach.

Abundant scientific literature is available on this subject and provided below in the list of references. [1-7]

For these reasons, LITT should be covered by insurance carriers and other third-party payors as a viable alternative to traditional surgical treatment for epilepsy.

## References

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2. Kang, J.Y. and M.R. Sperling, *Epileptologist's view: Laser interstitial thermal ablation for treatment of temporal lobe epilepsy*. Epilepsy Res, 2018. **142**: p. 149-152.
3. Kang, J.Y. and M.R. Sperling, *Magnetic Resonance Imaging-Guided Laser Interstitial Thermal Therapy for Treatment of Drug-Resistant Epilepsy*. Neurotherapeutics, 2017. **14**(1): p. 176-181.
4. Kang, J.Y., et al., *Laser interstitial thermal therapy for medically intractable mesial temporal lobe epilepsy*. Epilepsia, 2016. **57**(2): p. 325-34.
5. Drane, D.L., *MRI-Guided stereotactic laser ablation for epilepsy surgery: Promising preliminary results for cognitive outcome*. Epilepsy Res, 2018. **142**: p. 170-175.
6. Youngerman, B.E., et al., *Laser ablation is effective for temporal lobe epilepsy with and without mesial temporal sclerosis if hippocampal seizure onsets are localized by stereoelectroencephalography*. Epilepsia, 2018. **59**(3): p. 595-606.
7. Drane, D.L., et al., *Better object recognition and naming outcome with MRI-guided stereotactic laser amygdalohippocampotomy for temporal lobe epilepsy*. Epilepsia, 2015. **56**(1): p. 101-13.