

Neuravive™  
STEP BY STEP

How the  
treatment works



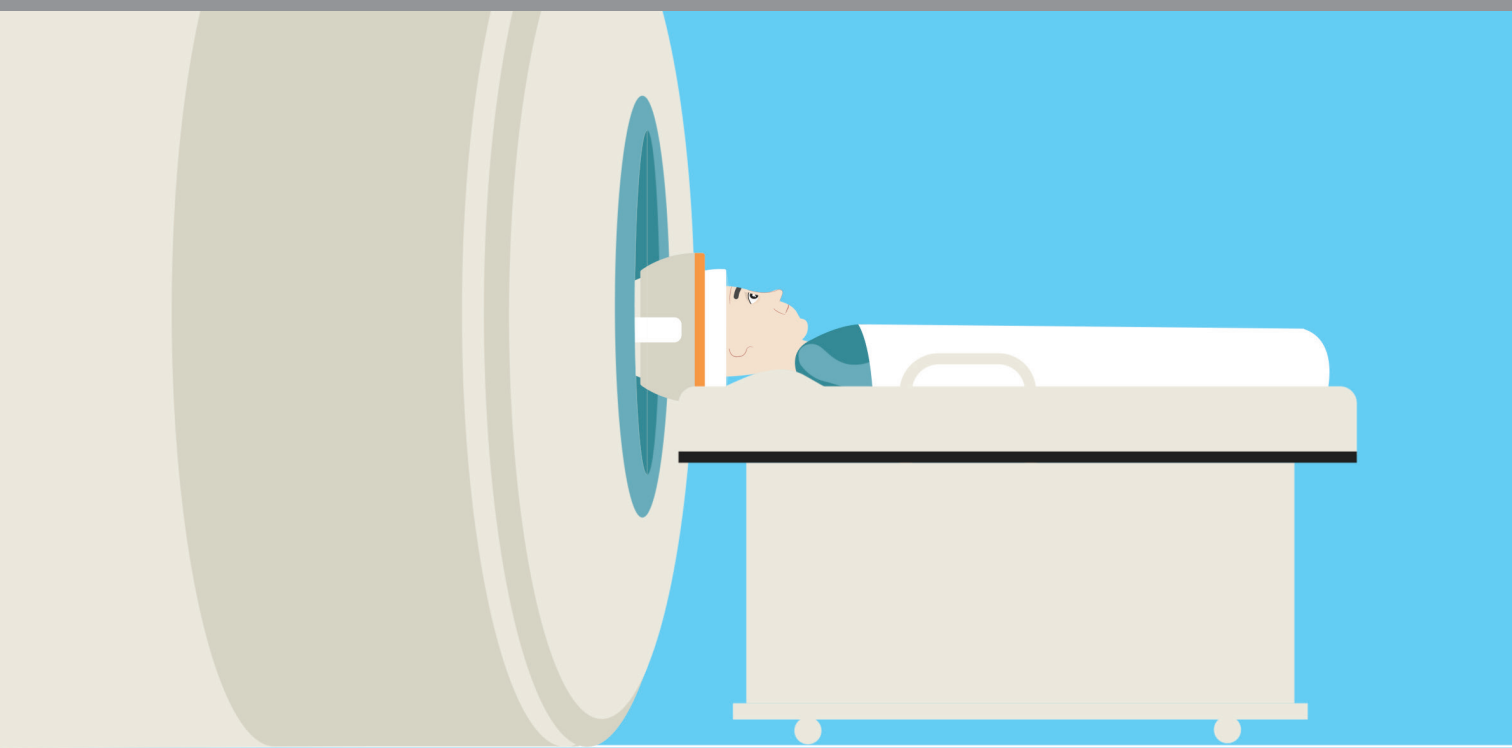
What is the  
Neuravive  
treatment?



Neuravive is a new treatment for essential tremor patients.



It is based on MR-guided focused ultrasound, where sound waves are used to treat instead of incisions, brain implants or radiation.

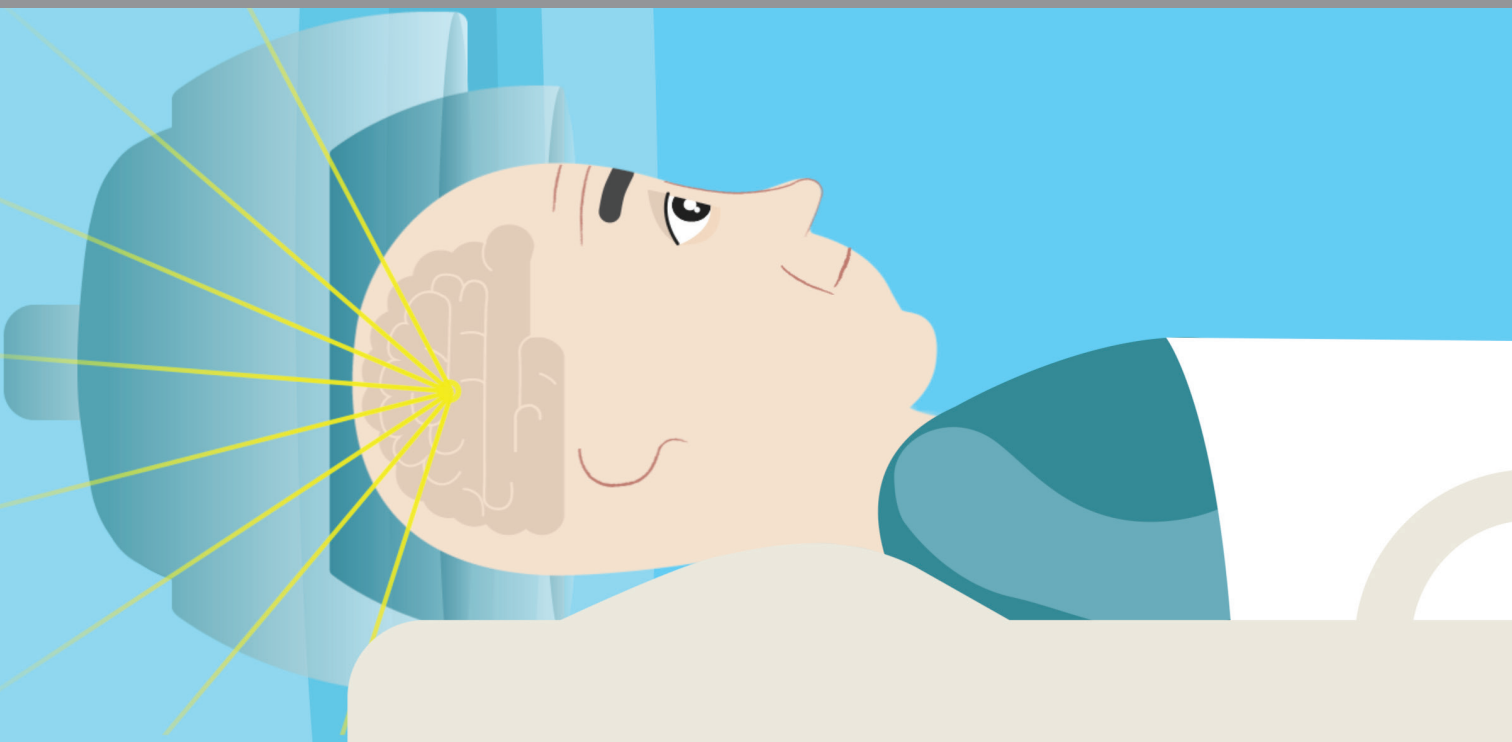




The ultrasound waves are focused through the skull to create a small ablation, or burn, which reduces the hand tremor.

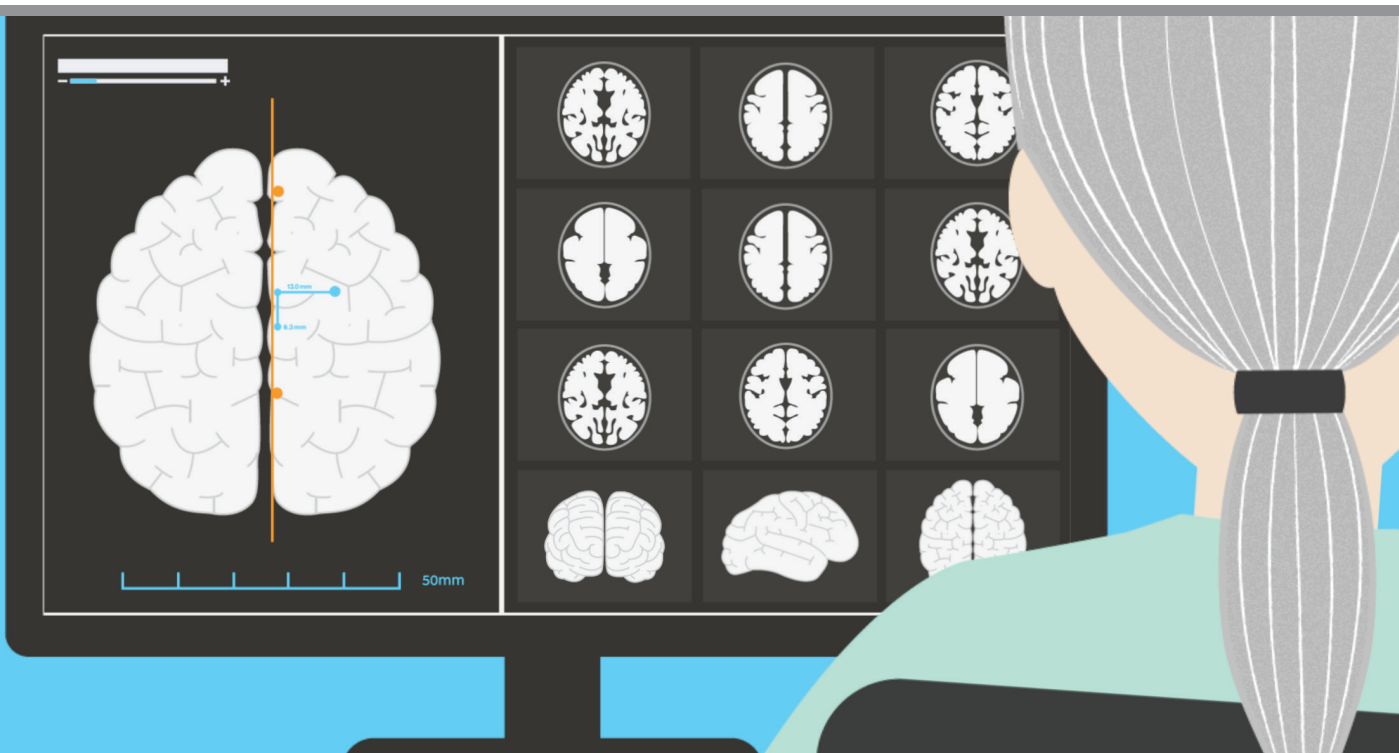


During treatment, a lesion approximately 5x5mm in size will be made in the thalamus - the part of the brain which controls your tremor.





With MRI images, the physician can clearly see the treatment area as well as temperature changes.





Before the  
Neuravive  
treatment



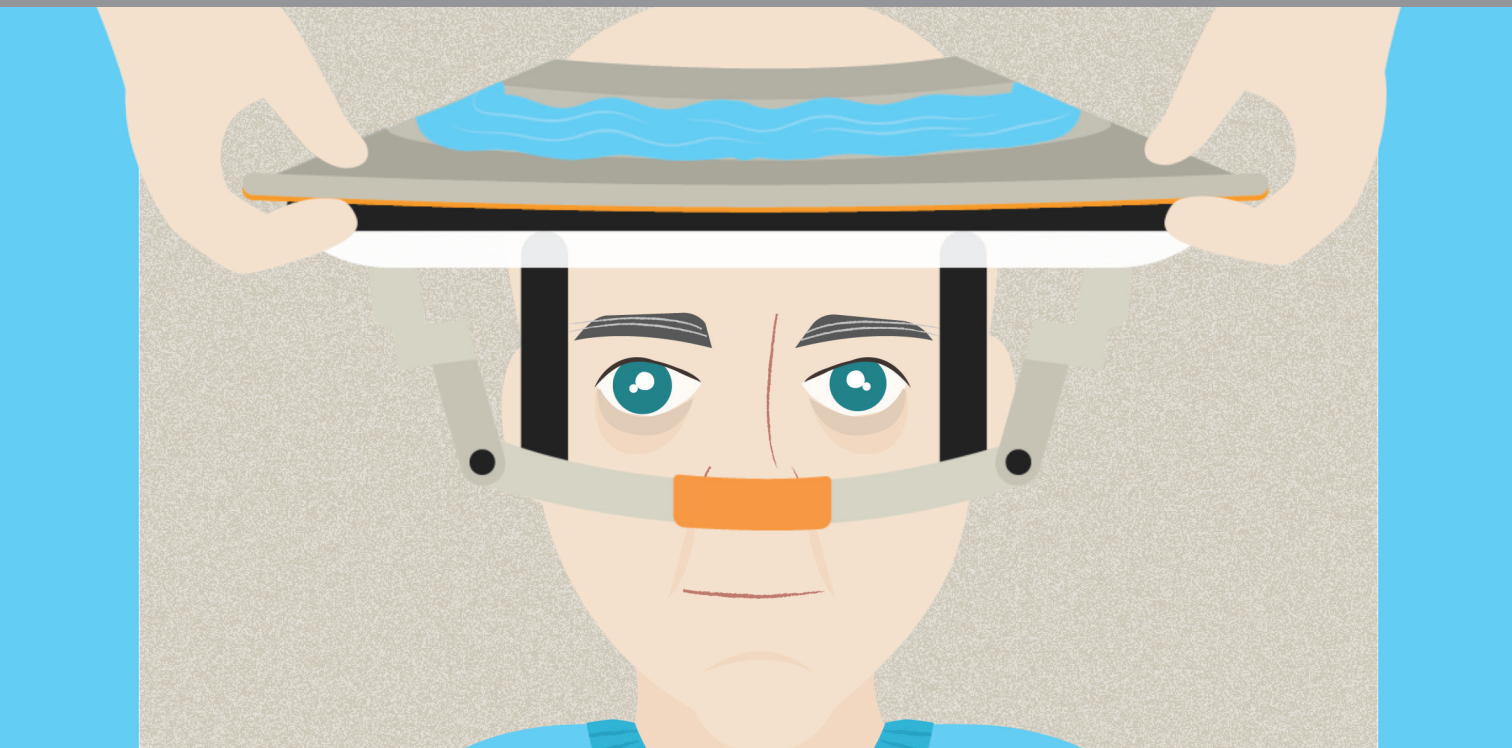
Your head will be shaved so that nothing interferes with the ultrasound waves.



Local numbing medication is injected and a frame is secured so your head doesn't move during treatment. An elastic cap is placed to seal the water circulated in the helmet to cool your scalp.



Since treatment lasts more than 3 hours, a urinary catheter is placed and your vitals will be monitored.





During &  
After the  
Neuravive  
treatment





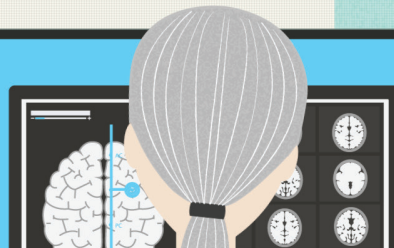
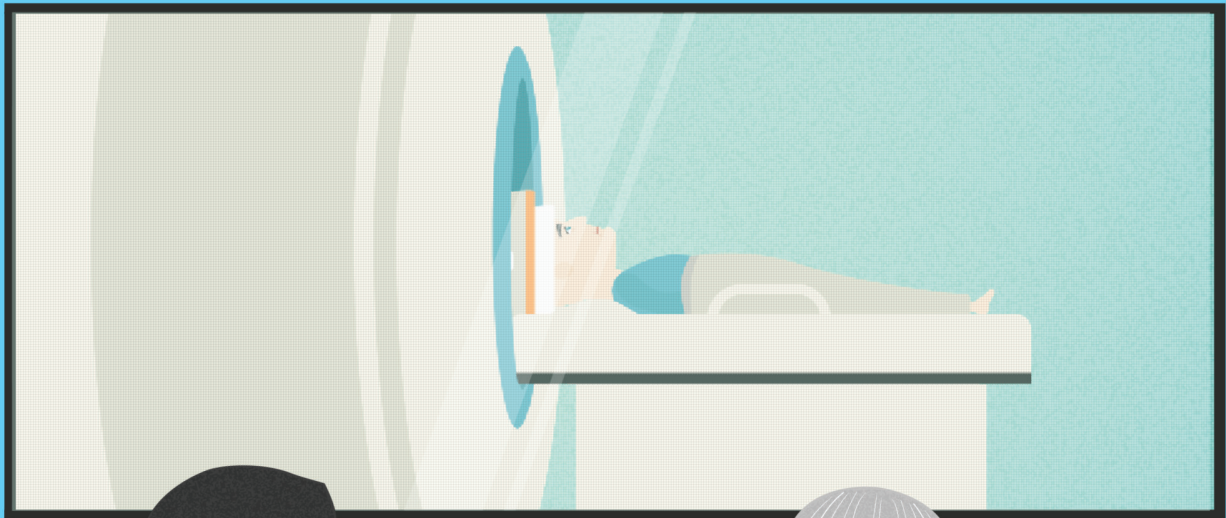
You will lie down on the treatment bed with your head in the focused ultrasound helmet.



The treatment bed will move in and out of the MRI. You will have a “stop sonication” button if for any reason you want to stop the procedure.



The medical team will be in the control room and you will be awake and able to talk to them.





First light and then full intensity ultrasound energy will be applied.



After each sonication, you will do tasks, such as drawing spirals.



This allows the physician to evaluate the improvement of your tremor and identify any potential side effects.





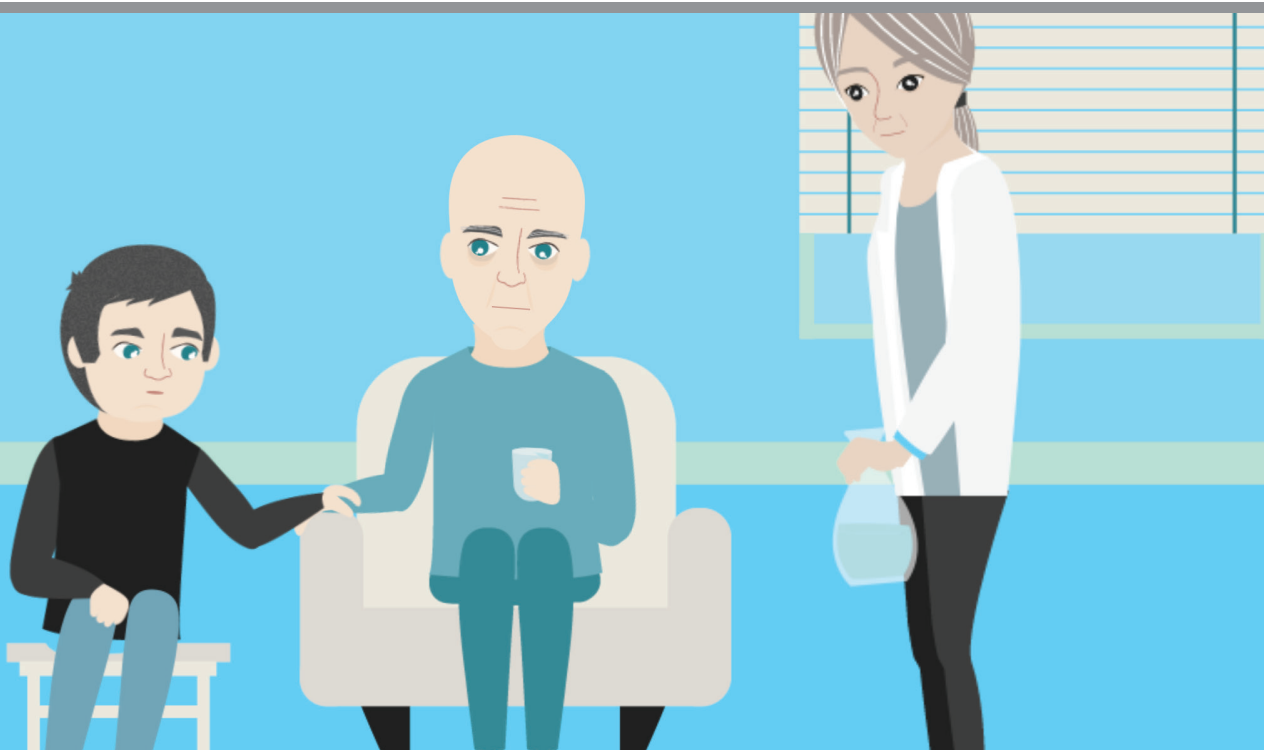
A final MRI scan will be done to assess the treatment.



The frame will be removed and you will go to a recovery room.



After returning home, you can return to normal activities within days.





# Risks & Side Effects of the Neuravive Treatment



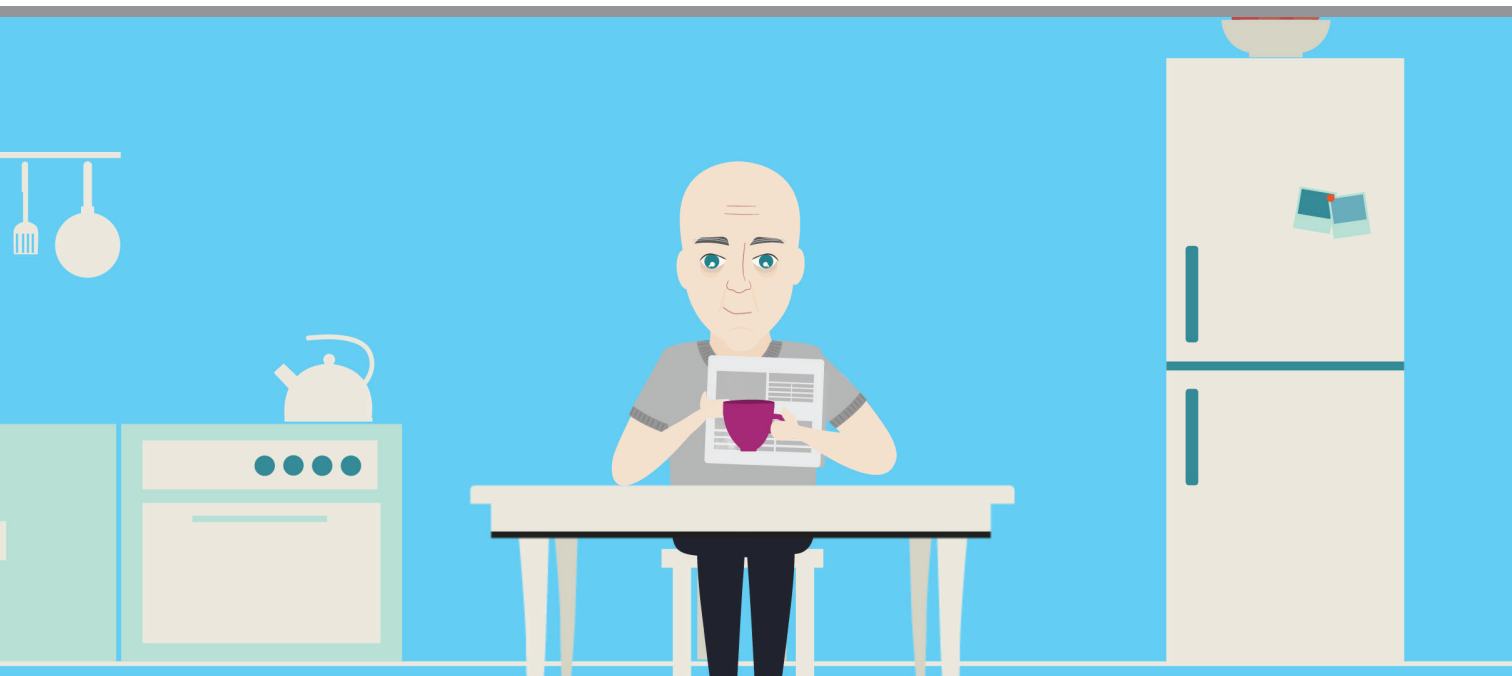
There is a possibility that your tremor may return after the Neuravive treatment, or that it may not improve at all.



For short periods during treatment, you may feel nausea, pain or other sensations.



There is a small risk that you could develop temporary or permanent muscle weakness, unsteadiness, sensory loss, or numbness or tingling in your fingers or elsewhere in your body.



# Neuravive™

[www.essential-tremor.com](http://www.essential-tremor.com)

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FDA Labeling:

From FDA labeling: Exablate Neuro is intended for use in the unilateral thalamotomy treatment of idiopathic Essential Tremor patients with medication-refractory tremor. Patients must be at least age 22.

<https://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DeviceApprovalsandClearances/Recently-ApprovedDevices/ucm510521.htm>

REPORTED FROM THE PIVOTAL CLINICAL STUDY:

Elias WJ, Lipsman N, Ondo WG, Ghanouni P, Kim YG, Lee W, Schwartz M, Hynynen K, Lozano AM, Shah B, Huss D, Dallapiazza RF, Gwinn R, Witt J, Ro S, Eisenberg HM, Fishman PS, Gandhi D, Halpern CH, Chuang R, Butts Pauly K, Tierney TS, Hayes MT, Cosgrove GR, Yamaguchi T, Abe K, Taira T, Chang JW., An International, Randomized, Controlled Trial of Focused Ultrasound Thalamotomy for Essential Tremor. The New England Journal of Medicine, Aug 2016.