

Exablate® Neuro MR-Guided Ultrasound for Essential Tremor

Information for Our Patients

You have been scheduled for an Exablate Neuro treatment to address essential tremor.

Your appointment is on _____ at _____ am/pm.

Please arrive 2 hours prior to your scheduled time.

NOTE: Times are subject to change. You will receive a confirmation call the Friday before your procedure.

How to Prepare

- For a morning appointment, please do not eat or drink anything after midnight the night before the procedure.
- For an afternoon appointment, do not eat or drink anything after 6 am the day of your procedure.
- Please do not apply any creams or oils to your head before your appointment.
- Discuss your medications with your doctor so he or she can instruct you on which ones you should take on the day of your procedure.

NOTE: Please do not take your medications for essential tremor for approximately 12 hours prior to the procedure. Please pause blood thinners for three days prior to and three days following your procedure.

Prior to Your Procedure

You will be connected to an IV (intravenous tube) so that medications can be administered as needed. Wires will be attached to your body to monitor your heart rate, oxygen level, and blood pressure.

- Your head will be shaved to ensure good contact between the scanning device and your skin.
- A stereotactic headframe will be placed around your head to immobilize it. This is a metal ring that is anchored into your skull with pins. A local anesthetic is injected prior to the pins being placed.
- A silicone membrane is fitted over your head to seal the space where cold water will circulate between your scalp and the helmet of the Exablate device. The circulating cold water will ensure adequate contact between your head and the ultrasound transducer.
- You will be positioned to ensure you feel comfortable enough to lie still for several hours. You may experience a sore neck or discomfort from lying in the same position, but it is important that you try not to move.

Stop Button

When you are positioned on the table, an Emergency Stop button will be given to you to hold during your treatment. If you press this button, it will alert your doctor and immediately stop the procedure. The team will then try to alleviate your problem. There are several potential changes that can be made to allow your treatment to continue more comfortably.

During Your Treatment

- Your physician will first take a sequence of MR (magnetic resonance) scans. This process usually takes less than 15 minutes and helps to precisely determine the location in the brain where treatment is needed.
- Your vital signs will be continually monitored. You will be able to speak and your doctor will be able to hear what you say.
- Before ultrasound treatment begins, a baseline physiological assessment is taken. You may be asked to draw spirals and lines, to test your handwriting on a clipboard, and to move your hands in certain patterns to allow the team to observe your tremor.
- A number of short ultrasound pulses will be directed at the targeted area, followed by a few minutes waiting period. The energy from these pulses causes the brain tissue to heat up, eventually destroying (ablating) the nerve cells associated with your tremor.
- With each series of ultrasound pulses, magnetic resonance images will be taken so your doctor can confirm that the treatment is proceeding as expected. From time to time, you will be asked how you are feeling.
- A physiological assessment will be done to evaluate any relief in tremor and/or side effects. You should tell the team if you begin to experience any unusual feelings during or after your treatment. Some patients have described feelings of warmth; numbness; facial, hand or fingertip tingling; changes in speech; nausea; pressure or intense heat on the scalp; dizziness or vertigo. While some of these sensations are to be expected, you should inform your doctor about them. They may be able to be addressed with medication or other adjustments.

After Treatment

At the conclusion of your treatment, another set of MR images will be taken. You are then taken out of the MR device and the stereotactic headframe, sealing membrane, IV and catheter (if used) are removed.

- You will be taken to a recovery room where you will remain while your medication from the procedure wears off.
- The vast majority of patients will be discharged the same day. For those living more than two hours away, we ask you to remain in town overnight. You will receive a follow-up call the next morning, and follow-up visits will be scheduled for the following week and months.
- Your doctor will discuss how your procedure went and advise you on post-treatment care.
- Disturbances of speech and gait are not uncommon in the first week after the procedure. We ask that you do not drive during this first week, and you will be prescribed some steroids on discharge.
- You will be prescribed two medications to start after your procedure. They are Famotidine (Pepcid) and Methylprednisolone (Medrol Dosepak). Please be sure to follow the instructions provided to you by the pharmacy regarding these medications.

If you have any medical questions or concerns about this procedure or your treatment protocol, please contact your doctor.

For any other questions, please reach out to our program navigator at 407-303-4215 or email CEL.tremorrelief@adventhealth.com.