

Pathway of Care Plan: Microvascular Decompression Surgery for Trigeminal Neuralgia

Trigeminal neuralgia (TN), also called tic douloureux, is a chronic pain condition affecting the fifth cranial nerve (CN5) – the trigeminal nerve. This condition is characterized by sudden, severe, stabbing or shock-like episodes of facial pain in one or more of the branches of the trigeminal nerve. It typically occurs when the trigeminal nerve is compressed by an artery, or less commonly a vein, but may also be present with no apparent cause.

Trigeminal neuralgia surgery is reserved for people who still experience debilitating pain despite best medical management. Surgical evaluation for TN includes:

- Confirm the diagnosis of trigeminal neuralgia
- Review of brain magnetic resonance imaging (MRI) scan to investigate evidence of possible vascular compression
- Exclude other treatable causes of face pain
- Evaluate the severity of the pain
- Evaluate the general medical condition of the patient
- Discuss patient preference regarding treatment goals and benefits versus risk

Microvascular decompression (MVD), also known as the Jannetta procedure, is the most common surgical procedure for the treatment of TN. This is an open surgical approach where an incision is made behind the ear and a small hole is drilled in the skull. The trigeminal nerve and surrounding area are examined. In most cases, there is a blood vessel (typically an artery, but sometimes a vein) compressing the trigeminal nerve. By moving this blood vessel away from the nerve and inserting padding made of Teflon felt, the pain is usually relieved. While MVD is considered to be the most invasive surgery for TN, it is also the best procedure for fixing the underlying problem that usually causes TN— vascular compression— in patients for whom open surgery is a good option.

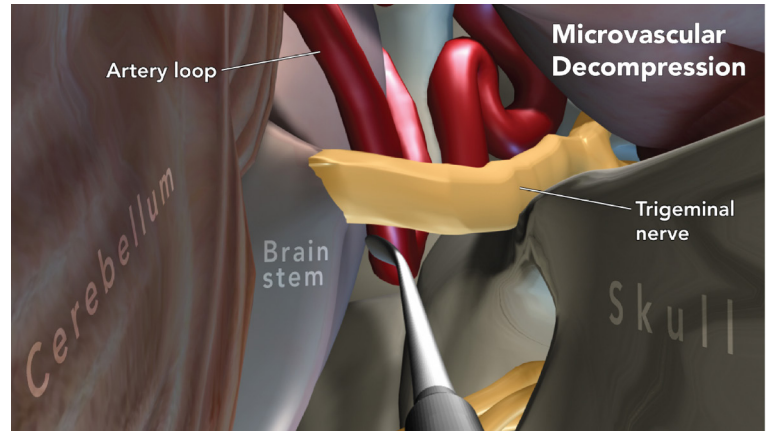
Preparing for surgery

You will be receiving a packet of information, either in the mail or via email/My Chart from our Patient Navigator. This preoperative information packet will contain information including your surgery date, what time to arrive at the hospital (or when to call our office to confirm that time), and what additional tests or appointments you may need prior to your surgery.

You will also be contacted by our Prepare Clinic. You will be assessed by a doctor or nurse practitioner from the Prepare Clinic before your surgery. The Prepare Clinic staff will ensure you are ready for surgery and that you complete the tests you need before your operation. Depending on your health, this assessment will occur by phone or in person at the clinic. This decision is made by the Prepare Clinic, not your neurosurgeon. Please be sure to follow their instructions regarding your preoperative evaluation to help ensure your readiness for surgery.

Day of Surgery

Please arrive at the hospital at the time indicated by Dr. Chang's office. You will be asked to arrive a few hours before your scheduled surgery to allow time for your procedure preparation and to allow for any possible changes in the surgery schedule. When you arrive, please go to the surgical waiting room, M104J, located within the Surgical Family Lounge on the first floor of the hospital, unless you have been told otherwise. A receptionist in the surgical waiting room will greet you and let the surgical staff know you have arrived.



Once the surgical team is ready for you, a staff member will escort you to the pre-surgical area and you will be prepared for surgery. One friend or family member may stay with you until you are taken to the operating room.

After your Surgery

Following your surgery you will be transferred to the post-anesthesia care unit (PACU). You will remain in the PACU for a few hours while the anesthesia begins to clear from your body. A friend or family member may be able to visit you there briefly, depending on how you are doing. It is common to experience pain at the incision, headaches and/or nausea. You will be given medications as needed to help with this.

Once you are fully awake and have recovered from the anesthesia, you will be transferred to the Neuro Transitional Care Unit on 6 Long.

You will receive IV fluids to keep you well hydrated.

After a few hours, you will be started on a clear liquid diet. Your diet will be advanced as tolerated.

Pain medication and nausea medication will be available to you as needed. If you were taking medications for treatment of TN prior to your surgery, these medications will be restarted following surgery. You should NOT stop these medications abruptly, even if you are no longer experiencing trigeminal neuralgia pain following your surgery. You will be provided with instructions how to taper your TN medications, if applicable, at discharge.

You will have sequential compression device stockings on your legs to prevent blood clots while you are in bed. As your energy level permits, the nurse will help you up to the chair and to start walking, usually beginning the same day as your surgery.

You may have a dressing over the incision or it may be left uncovered. Your incision will be closed with absorbable sutures (that do not need to be removed) and glue.

The nurse will check in on you frequently, especially for the first day and night, checking your vital signs and neurological status often.

Post-Operative Day 1

The resident physician will round early in the morning to visit you. The nurse practitioner (NP) will see you later in the day.

Today you will continue advancing your diet, assuming any nausea or vomiting that you may have experienced is subsiding.

Your nurse will continue to encourage you to be out of bed, sitting in a chair and taking frequent walks throughout the day, and will assist you as needed.

A physical therapist may see you today, particularly if you are feeling unsteady on your feet or are experiencing new problems with walking. If you regularly use assisted devices at home (such as a cane or a walker) please bring these items with you to the hospital.

Goals today: Control post-operative pain and nausea and increase your diet and activity.

Post-Operative Day 2 - Anticipated Discharge Day!

The resident physician will see you early in the morning. Our NP will also see you and discuss your readiness to go home. We will want to make sure that you are:

- Walking safely
- Eating regular foods
- Managing your pain with oral medications

Your doctor and NP will decide if you are ready to leave the hospital and will review discharge instructions with you. If your care team confirms you are ready for discharge today, you can anticipate being ready to leave the hospital by 11am. However, do keep in mind that the day and time of your discharge may change, depending on how you are doing.

When you are discharged from the hospital, you must be accompanied by an adult who can safely transport you home. Please determine who that person will be prior to your surgery and let our staff know who that individual will be.

The bedside nurse will review the discharge instructions with you. You will also be given a copy of written discharge instructions, specific to your surgery, to have as a reference once you are at home.

The pharmacist will review with you all of the medications that will be prescribed for you to take at home.

The nurse will remove your IV. If it is flu season, you will be offered a flu vaccine.

Once your discharge paperwork is complete and your questions have been answered, your friend or family member can take you home.

You will be seen back in the Neurosurgery Clinic for your post-operative visit in approximately 4-6 weeks. If you have any questions or concerns that arise in the interim, please give our office a call. We will be happy to answer your questions or see you in clinic sooner if needed.

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