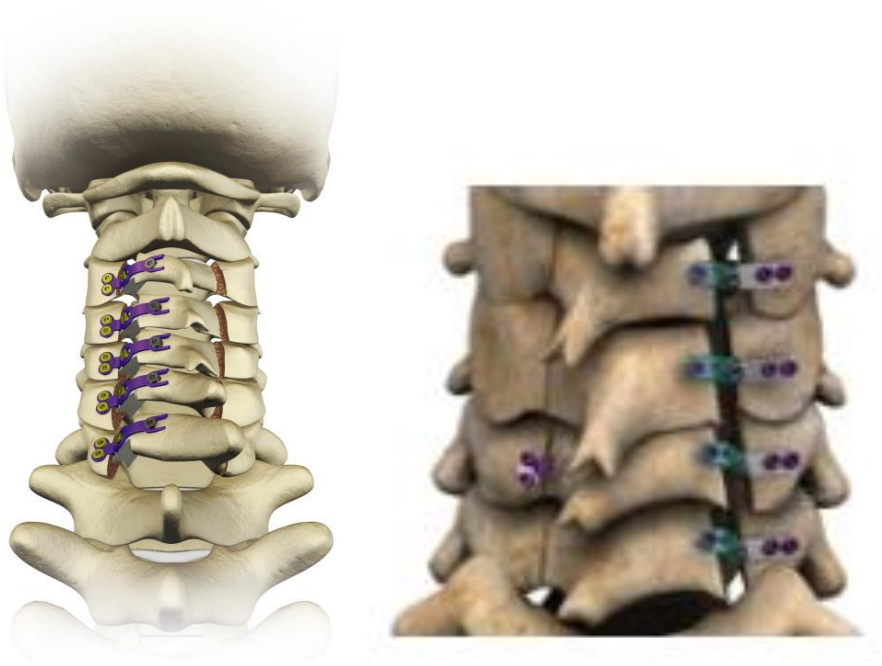
CERVICAL LAMINOPLASTY

Cervical laminoplasty is a type of motion preserving surgery typically done for multilevel spinal cord compression of the cervical spine. It is done from the back of the neck. Typically, it allows decompression of multiple levels in one surgery. It has been used for more than 30 years. The procedure was invented in Japan originally, where the prevalence of spinal cord compression due to ossified posterior longitudinal ligament is quite high. Since then, it has been used all over the world for cervical spinal cord compression.

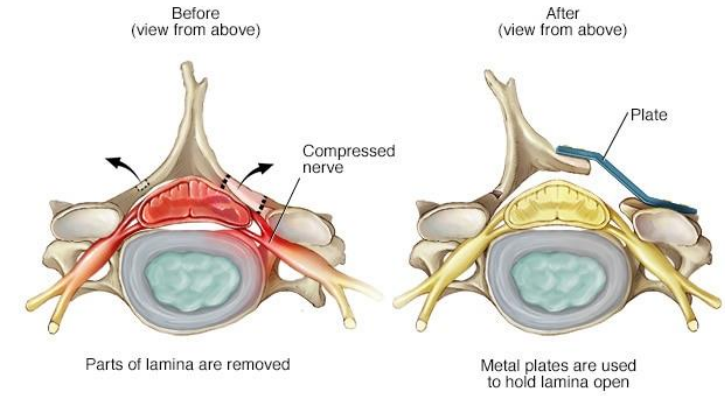
The procedure involves creating a hinge on one side of the roof of the spinal canal and hinging "the lamina open." It is different from laminectomy when the roof of the spinal canal or lamina is completely removed. It is also different from a fusion, where screws and rods are inserted on either side of the spine to eliminate motion. Laminoplasty does involve insertion of mini plates to hold the hinge open (like a doorstop to prevent the door you just created from closing). These small metal plates do not bridge across spinal levels or eliminate motion.

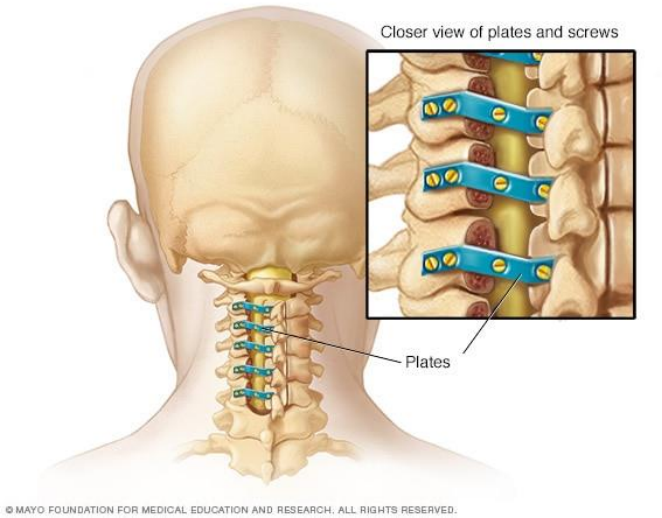


The goal of a laminoplasty procedure is to decompress the spinal cord. Historically, we thought that would prevent worsening of the symptoms of spinal cord compression, but not necessarily improve symptoms. With more modern surgical techniques, we now expect to see some (but rarely total) improvement in these symptoms.

The main limitations are laminoplasty are persistent axial neck pain. It is due to persistent arthritic changes in the cervical spine. Laminoplasty being a motion preserving procedure does not fuse levels and hence does not eliminate the pain from arthritis.

Complications of laminoplasty are similar to complications of posterior cervical laminectomy or posterior cervical fusion. These include, but are not limited to: risk of infection, risk of bleeding, risk of dural tear, risk of stenosis at another level, risk of postoperative kyphosis or hunching forward and risk of C5 palsy. Neurologically, C5 palsy manifests as weakness of deltoid muscles and it is probably the most common complication we see, approximately 5% of cases. It is typically temporary. Special nerve monitoring equipment is used throughout the surgery to try to minimize this risk. Injury to the spinal cord injury is very uncommon but has been reported. The risk of that would be estimated to be around 1% or 2%.





Post-op instructions

Laminoplasty

WOUND CARE

-You may have a small drain placed in the wound to prevent the accumulation of blood. This will be removed before you leave the hospital.

-You can shower normally, just pat the wound dry and make sure water doesn't accumulate under the bandage. No bathing or swimming (don't submerge the incision) until after your first follow up.

-If water DOES accumulate, simply remove the bandage. No further bandaging is needed. There may be steri-strips over the incision. Just leave these alone; they will either fall off on their own or will be removed at your first post-op visit. You can continue to shower normally, just let water run over the incision, but do not scrub.

-As long as it stays intact and water-tight, just leave the bandage in place until your first follow up.

BRACING

-Bracing can be used for comfort purposes for the first 2 weeks after surgery. There is no bracing requirement; the brace is for your comfort. In fact, studies have indicated that prolonged brace wear following this surgery can be detrimental to your recovery, so you will be strongly encouraged to eliminate the brace after 2 weeks.

DIET

-Eat normally, but start slowly. Imagine you had a stomach bug until today. Be cautious, start with fluids and small amounts of food. Increase your intake as tolerated.

-It is not abnormal to experience some nausea after surgery.

-If you have severe or consistent nausea, medications can be prescribed to help. Call us if you are having that problem! If you have had problems with nausea in the past, either related to prior surgeries or pain meds, or if you just feel like you have an easily upset stomach, let us know beforehand. We can prescribe you anti-nausea medications just in case.

MEDICATIONS

-Pain medications will be prescribed. Take these as written on the bottle, do not take more than the prescribed amount unless you have been instructed otherwise by your doctor. You may take less if your pain is not bad, but do not take over the prescribed amount.

-Pain medications can cause constipation. If this is a problem, take over the counter laxatives or stool softeners. They can also cause nausea, as addressed above. Taking them at meal times can help limit nausea.

-Restart all home medications after surgery, unless you are directed to do otherwise.

-If you take an anticoagulant or blood-thinner, discuss this with your doctor prior to restarting this medication. This includes Plavix/clopidogrel, Coumadin/warfarin, Aspirin, Xarelto-rivaroxaban, Eliquis/apixaban, heparin, and others.

-An anti-inflammatory like Celebrex may be prescribed to limit swelling and inflammation. Take this as prescribed.

-Sometimes a nerve pain medication like Gabapentin or Lyrica can be prescribed. Also take these as directed. The medications can sometimes cause side effects (drowsiness, confusion) that can make them difficult to tolerate. Let us know if you have had a problem with either of these medications in the past.

ACTIVITY

-Walking is your job! Walking is great for many reasons. Walking helps prevent the development of ileus (when your belly shuts down and doesn't want to move food/fluids through), as well as preventing blood clots. Walking is the one thing YOU can do to help these conditions.

-Initially, walking is your physical therapy. Later on in recovery, physical therapy may be helpful, depending on each patient and their recovery.

-Make sure that you are getting up and taking walks frequently. We want you moving! Remember, this is surgery on your neck. Not your arms, and not your legs. Frequent short walks are strongly encouraged.

-Avoid extremes of neck flexion and extension initially.

REASONS TO CALL US

-Fever over 101.5 degrees F.

-Excessive pain despite appropriate use of pain medications and other pain medications.

-Excessive drainage at the surgical site: mild bleeding is common, but significant bleeding requiring multiple bandage changes, or fluid that doesn't look like blood, is a good reason to call. Really, call us if anything is coming out of the wound other than a few spots of blood.

-Nausea/vomiting that you can't control, or constipation that doesn't improve with over the counter stool softeners and laxatives.

-Worsening weakness in the arms or legs. Some mild weakness after surgery is normal, but this should stay the same or slowly improve. If instead that weakness is worsening, contact us immediately.

FOLLOW-UP

-Your first follow up should be scheduled prior to your surgery, about 2 weeks after the surgery. If it hasn't been scheduled yet, call our office and we will make sure you are seen at around the 2-week point.

-There will be several follow ups after this initial appointment. Usual follow-up appointments are around 2-weeks, 6-8 weeks, 3-4 months, and 1 year. At many of these appointments, x-rays will be taken to monitor bone healing. Sometimes more or less follow-ups are required, depending on your surgery and your progress.

Don't hesitate to call us at 415-750-5570 if you have any questions.