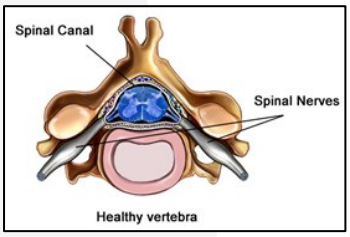
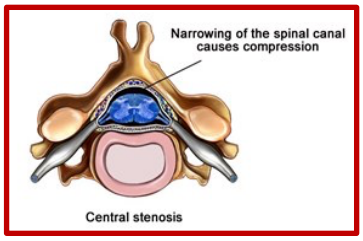
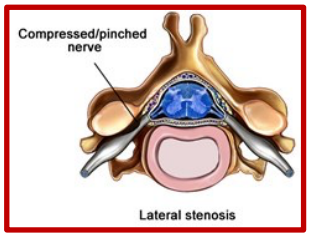
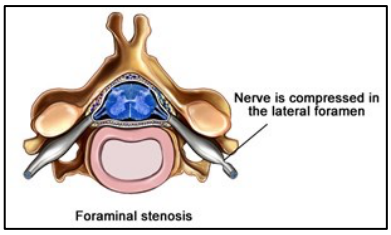
Laminectomies

The three most common types of spinal stenosis (narrowing of the spinal canal) are labeled in the images below, of these central and the lateral recess stenosis (images outlined in red) are often addressed via a laminectomy.



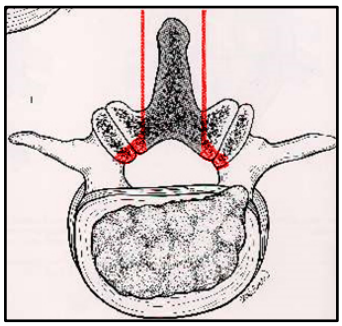


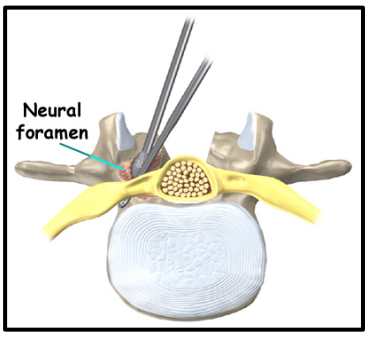




Traditionally, surgeons use powered instruments (i.e. drill w/matchstick bur) or manual instruments (i.e. osteotomes) to perform their laminectomies. However, such devices lack precision (i.e. skipping or skiving), the ability to preserve healthy bone (for grafting purposes) and cause more bleeding intraoperatively. Once the laminectomy has been performed, additional bone removal might be required to achieve the desired/necessary decompression. This additional bone removal can be referred to as "cleaning up the gutters" or "extending the decompression." Often times the additional bone removal will be done using manual instruments (i.e. kerrisons or curettes), which are effectively "blind bites" with increased risk for injury to critical structures (i.e. dura, thecal sack, nerve root).

Surgeons will often use a blade to remove the lamina, then, they can use one of the hook shavers to "extend the decompression" and address the lateral recess stenosis. The image to the right shows the area of bone, shaded in gray, that is removed when doing a laminectomy for central stenosis with a blade. The lateral extensions of bone, shaded in red to the right, that are removed from the anterior aspect of the lamina is the area that is addressed with the shavers.





The removal of bone from the anterior aspect of the lamina and into the facet must be extremely precise. If too much of the facet joint is removed, spinal instability can be created, potentially making a fusion necessary.

So What?

The utilization of a Shaver (Micro or Macrohook) and a Blade (10 or 20 mm) for a laminectomy is advantageous for multiple reasons. The first is with the atraumatic, longitudinal, non-rotational mechanism of action, users can achieve greater resections in the vicinity of vital structures. The combination of the Blade and Shaver allows for the preservation of healthy bone, which can later be used to save the hospital money in the form of decreased bone graft costs. The second reason this combination of tips is advantageous for the surgeon and hospital is that they allow for decreased blood loss, leading to less blood transfusions and cell saver usage. Lastly, the precision and control the user experiences from this combination may allow for a more accurate decompression.

Selling Tips

- Introducing both blades & shavers during the evaluation phase, can result in greater adoption as there is less concern for cost.
- Ortho Spine surgeons generally prefer the Macrohook Shaver whereas Neuro Spine surgeons generally prefer the Microhook Shaver.

Suggested Tip Combinations

Cervical Spine: 10mm Blade + Microhook Shaver
Thoracolumbar Spine: 20mm Blade + Microhook or Macrohook Shaver

Sales App Surgical Videos to Reference

- Dr. Doers Laminectomy