Posterior Cervical Laminectomy and Instrumented Fusion

Indications & Surgical Technique

Jason C. Eck
Center for Sports Medicine and Orthopedics
Chattanooga, TN
Indications

• Laminectomy
  • Congenital stenosis
  • Degenerative stenosis
  • Cervical spondylotic myelopathy
  • Trauma
  • Epidural abscess
  • Epidural hematoma
  • Tumor
Indications

• Posterior Instrumented Fusion
  • Stabilization after laminectomy
  • Trauma
  • Tumor
  • Anterior pseudoarthrosis
  • Multilevel anterior corpectomy requiring supplemental fixation
Anatomy
Surgical Setup and Approach
Laminectomy Technique
Lateral Mass Screw Placement

- Roy-Camille: 10°
- Cheng: 30°–40°
- Anderson: 10°
- An: 30°
- Magerl: 15°, 25°
Lateral Mass Screw Placement
Pedicle Screw Placement
Key Points

• Postoperative kyphosis and instability are concerns in cases of multilevel laminectomy without fusion

• Careful preoperative assessment important to determine sagittal alignment

• Lateral mass screws should be aligned cephalad and laterally to maximize length and minimize complications

• Laminoforaminotomy allows for direct visualization and palpation of pedicle when determining appropriate starting point for cervical pedicle screws