

## KEY PROCEDURES

## ANTERIOR CERVICAL DISCECTOMY AND FUSION

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Published outcomes of this procedure can be found at: *J Bone Joint Surg Am.* 1958;40:607-24.

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## Abstract

**A**nterior cervical discectomy and fusion can be performed for a variety of pathologies but is most commonly used for the treatment of cervical radiculopathy or myelopathy. The procedure involves an anterior decompression of the disc space followed by interbody grafting and fusion. Supplemental anterior plating is commonly performed, and in certain circumstances, posterior instrumentation may provide additional fixation.

The procedure includes the following steps: (1) The use of an anterior approach to the cervical spine, most commonly the Smith-Robinson approach medial to the sternocleidomastoid muscle and the carotid sheath. (2) Confirmation of the proper spinal level. (3) Elevation of the longus colli muscle, which acts as a cuff for the placement of retractors. (4) Removal of the involved disc and decompression of the spinal cord and nerve roots. This is facilitated by disc space distraction, most commonly via distraction pins. Osteophytes along the floor of the spinal canal impinging on the spinal cord are removed with a burr. Soft disc and anular material are also removed, usually with curets and rongeurs. Uncovertebral osteophyte resection and foraminotomies are completed to decompress the exiting nerve roots. (5) Carpentery and decortication of the end plates in preparation for fusion. (6) Sizing of the disc space followed by insertion of an interbody graft. (7) Anterior fixation, most commonly via application of a plate-and-screw construct. (8) Hemostasis and closure.

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