

# Transthoracic approach

## Indications

Thoracic disc disease with central fragment or calcified disc, burst fractures of the thoracic spine, etc.

## Advantages

- excellent anterior exposure (especially advantageous for multiple levels)
- little compromise of stability (due to supporting effect of rib cage)
- low risk of mechanical cord injury

## Disadvantages

- requires thoracic surgeon (or familiarity with thoracic surgery)
- some risk of vascular cord injury (due to sacrifice of intercostal arteries)
- definitive diagnosis may not be possible if it is uncertain prior to procedure

## Possible complications

- Pulmonary complications: pleural effusion, atelectasis, pneumonia, empyema, hypoventilation
- CSF-pleural fistula

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While several approaches have been suggested for performing a [transthoracic corpectomy](#) of the [thoracolumbar spine](#), the steep learning curve and high risk of operative morbidity often dissuades its use clinically. As a result, posterior approaches have been more frequently used, though [transthoracic approaches](#) often allow for improved access for more complete decompression of the spinal cord. Additionally, the transthoracic approach allows for more complete removal of vertebral body lesions along with better access for reconstruction of the anterior column. Here we describe a distinct nine-step thoracolumbar corpectomy technique via a transthoracic approach. We include a description of one patient with one-year follow-up to further illustrate the surgical approach and relevant surgical anatomy. We have used this technique for maximal bi-pedicular decompression afforded by the lateral approach. We discuss key anatomical considerations, perioperative techniques and potential complications of the operation. The presented nine-step transthoracic corpectomy technique is a safe method for providing adequate neurological decompression and vertebral body tumor removal <sup>1)</sup>.

## Approaches

see [Anterior transthoracic approach](#).

see [Anterolateral transthoracic approach](#).

see [Transthoracic retropleural approach](#).

1)

Puvanesarajah V, Lina IA, Liauw JA, Lo SF, Elder BD, Wolinsky JP, Bydon A, Sciubba DM, Gokaslan ZL, Witham TF. Systematic Approach for Anterior Corpectomy through a Transthoracic Exposure. Turk Neurosurg. 2016;26(4):646-52. doi: 10.5137/1019-5149.JTN.15271-15.1. PubMed PMID: 27400115.

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