

# Thoracolumbar spine fracture surgery indications

Considering [Thoracolumbar spine fracture surgery](#), the total number of points helps guide managing surgeons and physicians to determine the [Thoracolumbar spine fracture treatment](#) depending on the presence of other co-morbidities and injuries. Patient with a [thoracolumbar injury classification and severity score \(TLICS\)](#) of:

Less than 4 - usually treated non-operatively

4 - may be treated operatively or non-operatively

More than 4 - usually considered for operative management.

Common classification systems differentiate between stable and unstable injuries and thus also between operative and conservative therapy. The majority of injuries can be treated conservatively; however, unstable injuries require surgical treatment for a variety of reasons. In the grey area between stable and unstable injuries, a clinical decision based on clinical experience is necessary in order to select the best treatment. A wide variety of parameters must be included and a change in strategy from conservative to operative may also be necessary <sup>1)</sup>.

## Pediatric age group

The [thoracolumbar injury classification and severity score \(TLICS\)](#) was significantly more appropriate than the [AOSpine thoracolumbar spine injury classification system](#), for the surgical treatment decision in [children](#), especially when considering the future risk of [sagittal imbalance](#) <sup>2)</sup>.

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The TLICS results and recommendations matched treatment in 96% of conservative group cases. In the surgical group, TLICS recommendations matched treatment in 93% of cases. The TLICS recommendations and surgeon decision-making displayed very good concordance. The TLICS appears to be effective in the classification of thoracic and lumbar spine injuries and in guiding treatment in the pediatric age group <sup>3)</sup>.

## References

<sup>1)</sup>

Dreimann M, Stangenberg M, Eicker SO, Frosch KH, Viezens L. Minimal-invasive dorsale und ventrale Stabilisierung der thorakolumbalen Wirbelsäule bei traumatischen Verletzungen [Minimally invasive posterior and anterior stabilization of the thoracolumbar spine after traumatic injuries]. Unfallchirurg. 2020 Oct;123(10):752-763. German. doi: 10.1007/s00113-020-00860-0. PMID: 32902669.

<sup>2)</sup>

Dauleac C, Mottolese C, Beuriat PA, Szathmari A, Di Rocco F. Superiority of thoracolumbar injury classification and severity score (TLICS) over AOSpine thoracolumbar spine injury classification for the surgical management decision of traumatic spine injury in the pediatric population. Eur Spine J. 2021

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3)

Sellin JN, Steele WJ 3rd, Simpson L, Huff WX, Lane BC, Chern JJ, Fulkerson DH, Sayama CM, Jea A. Multicenter retrospective evaluation of the validity of the Thoracolumbar Injury Classification and Severity Score system in children. J Neurosurg Pediatr. 2016 Aug;18(2):164-70. doi: 10.3171/2016.1.PEDS15663. Epub 2016 Apr 8. PubMed PMID: 27058457.

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