

VU Research Portal

Traumatic spinal fractures the fall and rise

Smits, A.J.

2020

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Smits, A. J. (2020). *Traumatic spinal fractures the fall and rise*. [PhD-Thesis - Research and graduation internal, Vrije Universiteit Amsterdam].

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

Table of contents

General introduction	7
Part 1 – Epidemiology	15
<i>Chapter 1</i> Epidemiology of traumatic spinal fractures in the Netherlands	17
<i>Chapter 2</i> Epidemiology of spinal fractures in a level one trauma center in the Netherlands: a 10 years review	39
Part 2 – Operative treatment of spinal fractures	55
<i>Chapter 3</i> Combined anteroposterior fixation using a titanium cage versus solely posterior fixation for traumatic thoracolumbar fractures: a systematic review and meta-analysis	57
<i>Chapter 4</i> Thoracoscopic anterior stabilization for thoracolumbar fractures in patients without spinal cord injury: quality of life and long-term results	79
<i>Chapter 5</i> Three-dimensional thoracoscopic surgery for spine fractures: a technical report with first results and experiences	101
Part 3 – Post-operative care	113
<i>Chapter 6</i> Is post-operative bracing after posterior fracture fixation necessary? (protocol of the ORNOT-trial)	115
<i>Chapter 7</i> Posterior implant removal in patients with thoracolumbar spine fractures: long-term results	133
Part 4 – The consequences of late collapsing spinal fractures	155
<i>Chapter 8</i> Thoracoscopic correction of post-traumatic kyphosis with an expandable cage: radiologic and patient-reported outcomes	157
<i>Chapter 9</i> General discussion	179
<i>Chapter 10</i> Nederlandse samenvatting	189
<i>Appendices</i> List of publications	199
Dankwoord	201
Curriculum vitae	205