

# VU Research Portal

## Towards ambulatory assessment of spinal loading in the field

Faber, G.S.

2010

### **document version**

Publisher's PDF, also known as Version of record

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

### **citation for published version (APA)**

Faber, G. S. (2010). *Towards ambulatory assessment of spinal loading in the field.*

### **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](mailto:vuresearchportal.ub@vu.nl)

# CONTENTS

<b>Publications by the author</b> .....	7
<b>Chapter 1</b> General introduction .....	13
<b>Chapter 2</b> The effects of ergonomic interventions on low back moments are attenuated by changes in lifting behaviour .....	29
<b>Chapter 3</b> Effects of horizontal transport and familiarisation with different working methods on low back loading in manual lifting .....	49
<b>Chapter 4</b> Effect of ship motion on spinal loading during manual lifting .....	67
<b>Chapter 5</b> Validity of estimates of spinal compression forces obtained from worksite measurements.....	89
<b>Chapter 6</b> Optimal inertial sensor location for ambulatory measurement of trunk inclination .....	107
<b>Chapter 7</b> Determination of joint moments with instrumented force shoes in a variety of tasks .....	119
<b>Chapter 8</b> Bottom-up estimation of joint moments during manual lifting using orientation sensors instead of position sensors .....	133
<b>Chapter 9</b> Epilogue.....	147
<b>References</b> .....	159
<b>Samenvatting</b> .....	177
<b>Dankwoord</b> .....	183