CONTENTS

CHAPTER 1 Introduction 9

PART 1 IMPROVING FUNCTIONAL OUTCOME

CHAPTER 2 Fast-track total knee arthroplasty improves clinical and functional outcome in the first seven days after surgery. A randomized controlled pilot study with five years follow-up 25

CHAPTER 3 No differences between fixed- and mobile-bearing total knee arthroplasty 49

CHAPTER 4 Does insert type affect clinical and functional outcome in total knee arthroplasty? A randomised controlled clinical trial with 5-year follow-up 83

4.1 Letter to editor: Does insert type affect clinical and functional outcome in total knee arthroplasty? A randomised controlled clinical trial with 5-year follow-up 103

4.2 In reply: Does insert type affect clinical and functional outcome in total knee arthroplasty? 109
PART 2 IMPROVING FUNCTIONAL OUTCOME MEASURES

CHAPTER 5 Cross-cultural adaptation and validation of the Dutch version of the High Activity Arthroplasty Score 117

CHAPTER 6 Gait quality assessed by trunk accelerometry after total knee arthroplasty and its association with patient related outcome measures 133

CHAPTER 7 Patients’ daily-life gait quality, gait behavior, and perceived walking abilities before and 3 months after total knee arthroplasty 155

CONCLUDING REMARKS

CHAPTER 8 Epilogue 175
CHAPTER 9 Nederlandstalige samenvatting 195
CHAPTER 10 Dankwoord 203
CHAPTER 11 Curriculum vitae 209
CHAPTER 12 Publication list 213