

The Unhappy Total Knee

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The Natural Knee

- Is a marvel and has evolved
- Connects long levers – femur and tibia
- Withstands huge forces – when jumping or squat
- Glides and twists
- Resists angular forces – collateral ligaments



The Arthritic Knee

- After years of use and abuse
- Injured and/or inflamed
- Deformed and/or stiff
- Cartilage wear and bony reaction
- Not surprisingly painful



The Artificial Knee

- An engineering challenge
- Stability vs freedom of movement
- Maintain natural ligaments
- Tribology – science of gliding surfaces
- Crosslinked poly and maybe ceramics



Registry Data TKR 2021

- Total number 59 474 total knees
- 56% Female
- Mostly 65 years and over
- Less than 10% under 55 years
- Patella resurfaced 76%
- 60% cemented, 20% hybrid, 20% uncemented



Registry Outcome Data TKR 2021

- Increase 9%
- Revisions decreased 7.4%
- 20 year cumulative revision rate 8%



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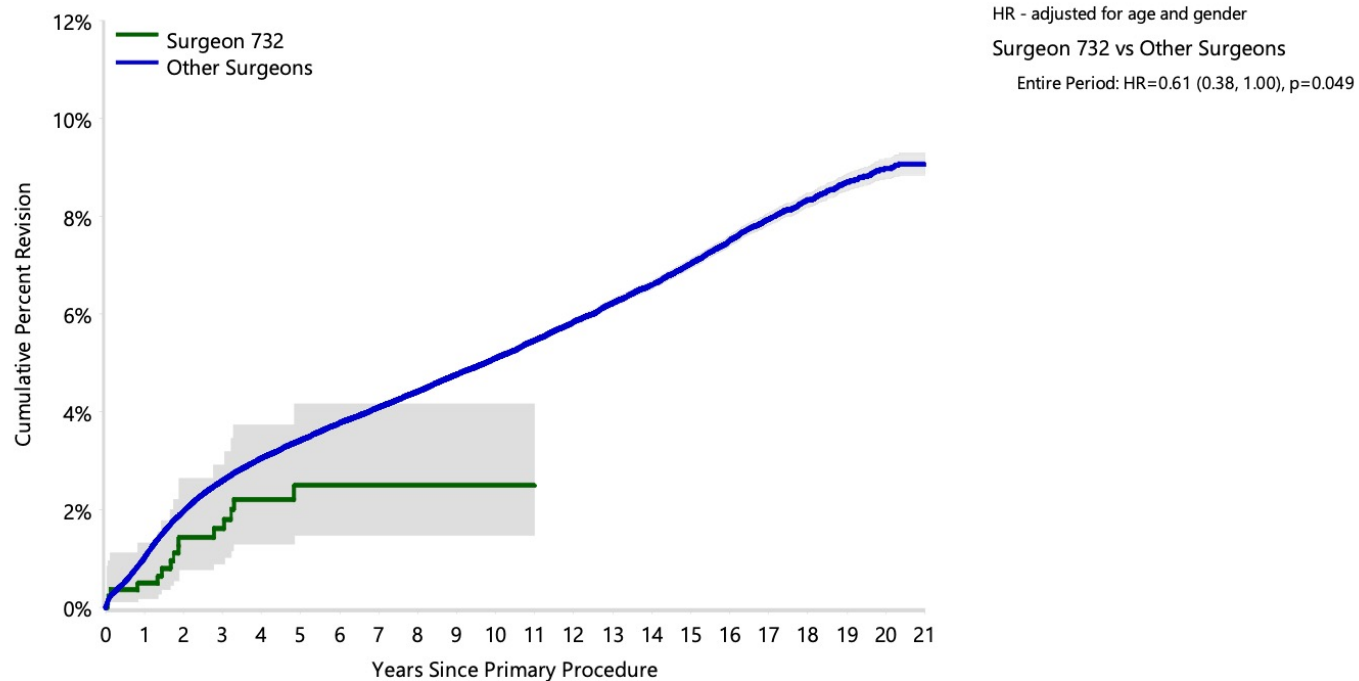
Registry Outcome Data TKR

- Increase 9%
 - Revisions decreased 7.4%
 - 20 year cumulative revision rate 8%
-
- Computer navigation and robotics slightly lower revision, but age dependent and patient satisfaction equal



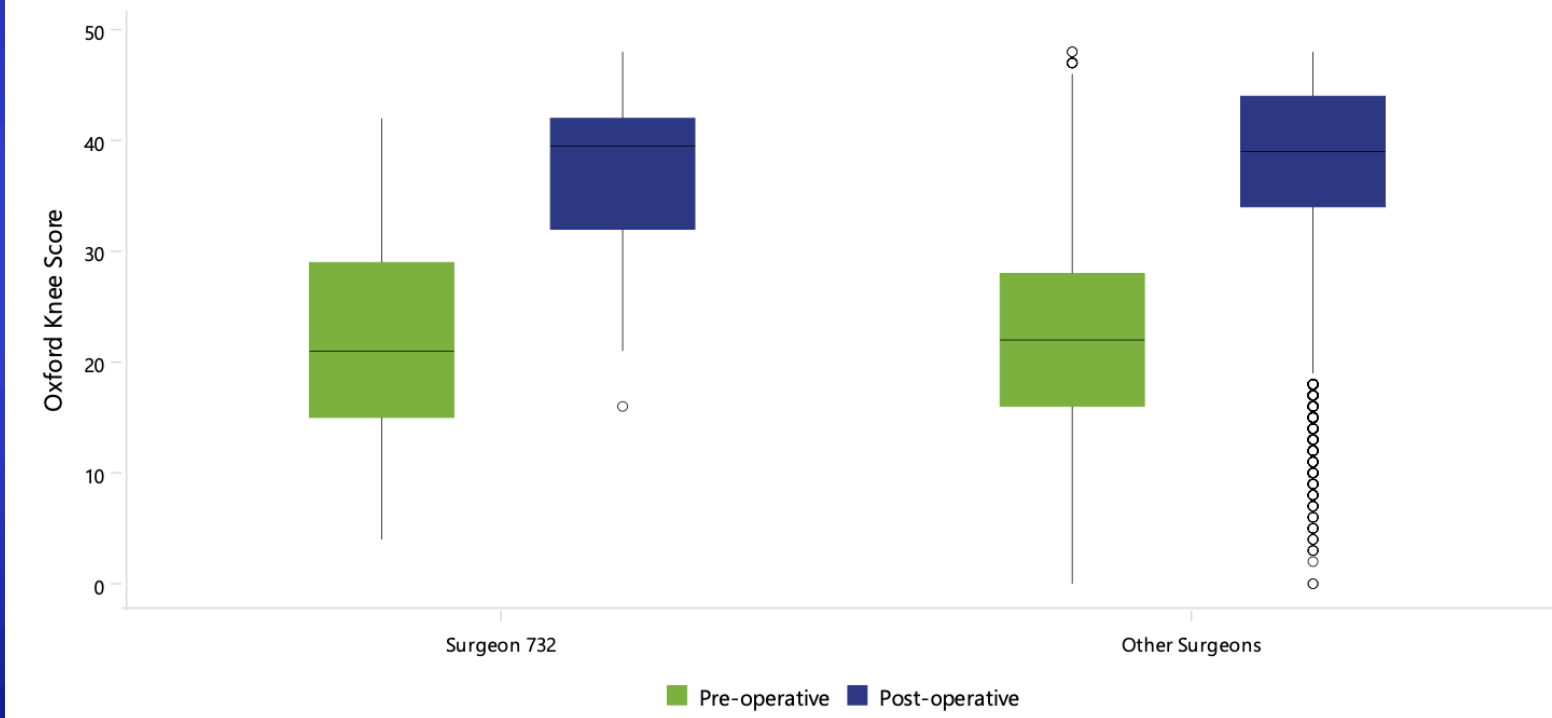
Registry Data per Surgeon – My Figures

Figure 24: Cumulative Percent Revision of Primary Total Knee Replacement by Surgeon (All Diagnoses)



PROMs per Surgeon – My Figures

Figure 35: Box Plot of Pre- and Post-operative Oxford Knee Score of Primary Total Knee Replacement by Surgeon (All Diagnoses, Excluding Fracture and Tumour)



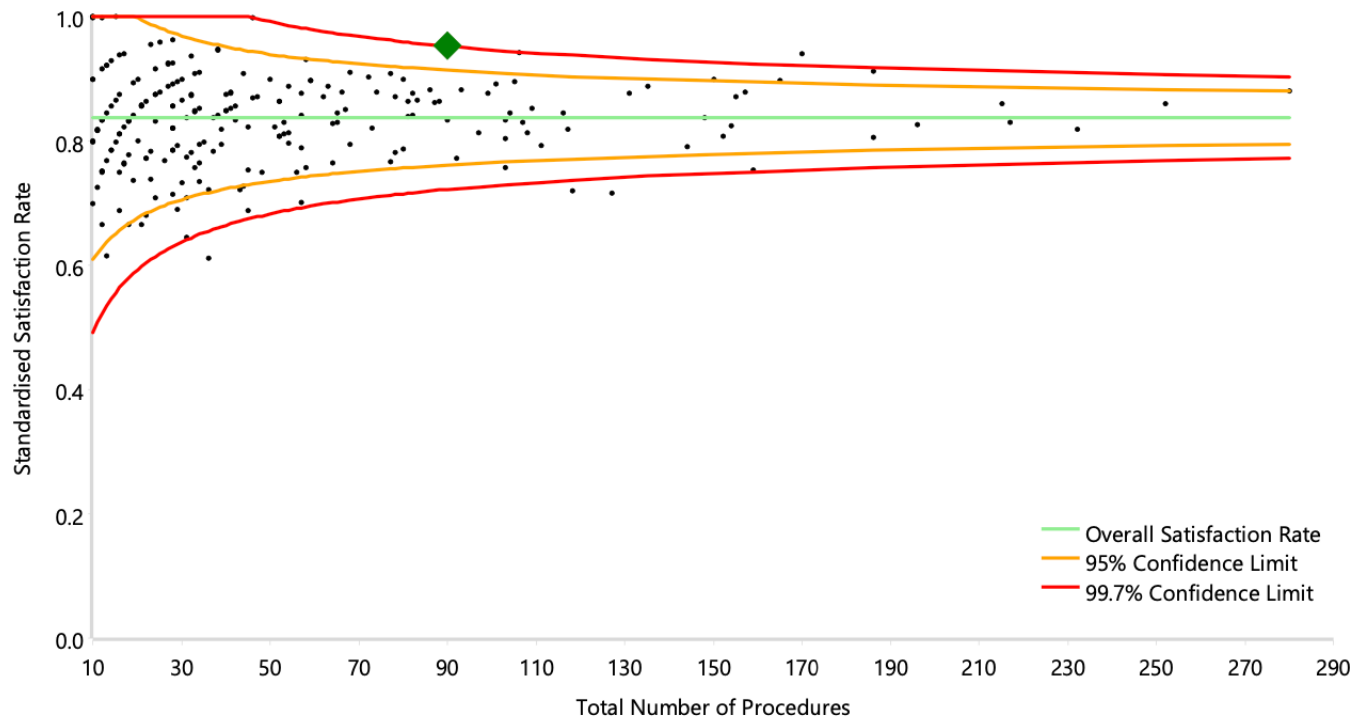
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Patient Satisfaction per Surgeon – A Sample

Figure 43: Funnel Plot of Procedure Satisfaction After Primary Total Knee Replacement (All Diagnoses, Excluding Fracture and Tumour)



Patient Satisfaction - Complex

- 80% of patients are satisfied
- But 20% unhappy:
 - Residual pain
 - Stiffness
 - Instability
 - Swelling
 - Clicks
 - Scars

• Unmet expectations, both physical and emotional



Problems for Surgeons

- Sizing – especially over sizing
- Positioning – femoral rotation
- Balancing – in flexion and extension
- Mal-tracking – patella
- Damaged ligaments
- Bleeding
- Infection
- Fracture



Prosthesis Failure

- Very rare
- Peg fracture
- Dissociation
- Poly wear
- Metallosis

- Refer to surgeon



Infection

- 1-4% primary and 6% in revisions
- Erythema
- Swelling
- Heat
- Discharge

- Refer to surgeon



Periprosthetic Fracture

- Often late
- History of trauma
- Sudden increase of pain
- Instability
- If suspected refer for x-ray or to surgeon



Problems for Physiotherapists

- Stiffness
- Weakness
- Gait

- Reassurance
- Confidence
- Communication



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Post Operative Stiffness

- < 90 degrees flexion
- > 10 degrees extension
- Factors you cannot change:
 - Pre-op range
 - Previous surgery
 - Surgical errors
 - Propensity to scar/contracture
 - Concurrent disability



Post Operative Stiffness

- Factors you can influence:
 - Create realistic expectations
 - Improve pain management
 - Set realistic time frame
 - Help with physical training
 - Support emotional state
 - See the difficult patient more often
 - Communicate with GP and surgeon



Manipulation Under Anaesthesia

- When progress stalls
- Mechanical block
- Pain inhibition

- Best done 6-8 weeks post op
- Day only
- Resume physio



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Hypersensitivity

- Nickel, cobalt, chrome
- Suspected, but difficult to prove
- Skin tests not reliable
- Serum levels very low

- Carcinogenesis of cobalt



Common Causes of Unhappiness

- Fear of pain
- Fear of doing the wrong thing
- Anxiety and depression
- Comorbidities
- Unrealistic expectations
- Social circumstances
- Lack of exercise; rarely over-active



Risk Factors for Unhappiness

- Patients with mild or moderate arthritis have worse outcomes
- High BMI
- High pain scores
- Depression and anxiety
- Previous surgery



The Challenging Knee

- Some knees look bad but feel good.
- The challenge is the knee that looks good but feels bad.
- Multiple investigations:
blood tests, CT scan, bone scan: rarely conclusive
- The unhappy knee needs to be heard



Other Factors causing Unhappiness

- Catastrophizing
- Loss of Control
- Effect on Home and Working life
- Socioeconomic and Educational status
- Information Overload



Prevention

- Careful patient selection
- Explain what to expect
- Undersell and over deliver
- Preoperative planning
- Post-operative care plan
- Communication



Unhappiness

- Physical causes – which we are happy to address
- Emotional causes- from which we may shy away



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- The teary patient
- The angry patient
- The difficult patient



Multi-task Physiotherapists

- Teachers – pre and post op
- Trainers and coaches
- Psychologists
- Patient advocates
- Counselors
- The patient's friend



Good Outcomes Require Teamwork

- Physios, GPs, surgeons, and others
- The unhappy patient needs us
- We should respect body and mind
- Feed back to patient and doctors
- Some need social work, psychology, drugs



What can we do?

- The unhappy patient wants to be heard
- Take time to listen
- Individualize treatments
- Share problems and solutions
- Address the emotional state



What can we do?

- The unhappy patient wants to be heard
- Take time to listen
- Individualize treatments
- Share problems and solutions
- Address the emotional state
- Communication will make some patients happy





Thank you

On behalf of Unhappy Patients.



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