

Why I Always Resurface

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Disclosures

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 - United Orthopedic Corporation

Patellar Anatomy & Biomechanics

- Complex
- Anatomic pulley
- Contact more proximal with flexion
- Peak pressures 90-120 degrees
- 5-7 x body weight

Patellar Anatomy & Biomechanics



Why Not?

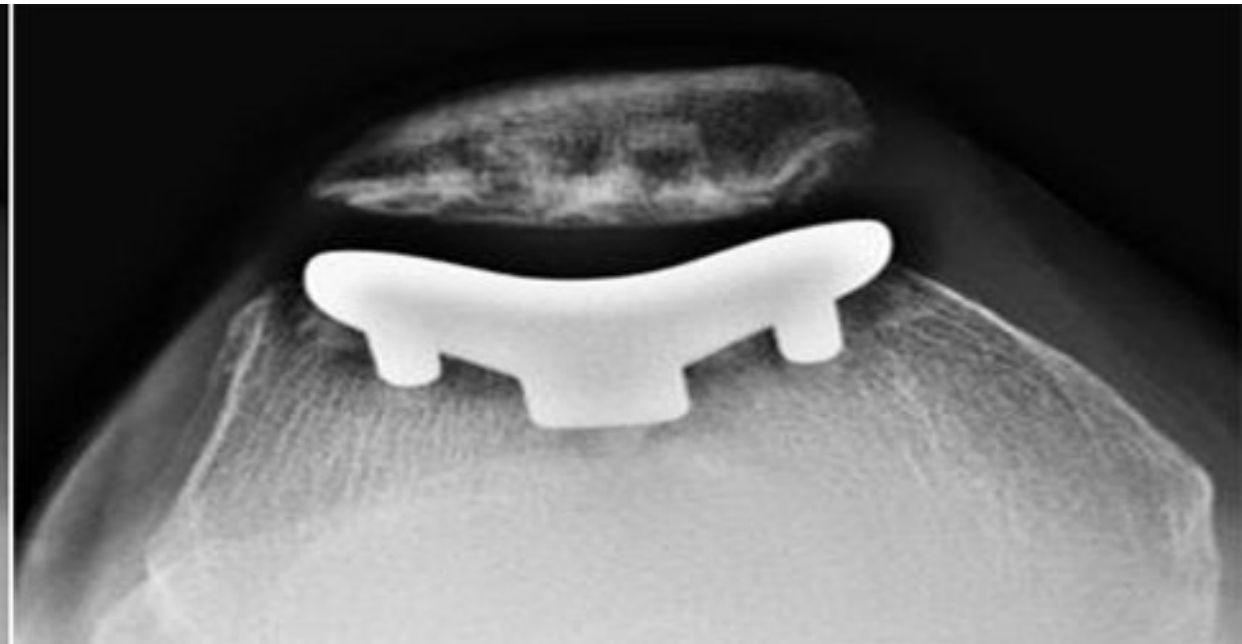
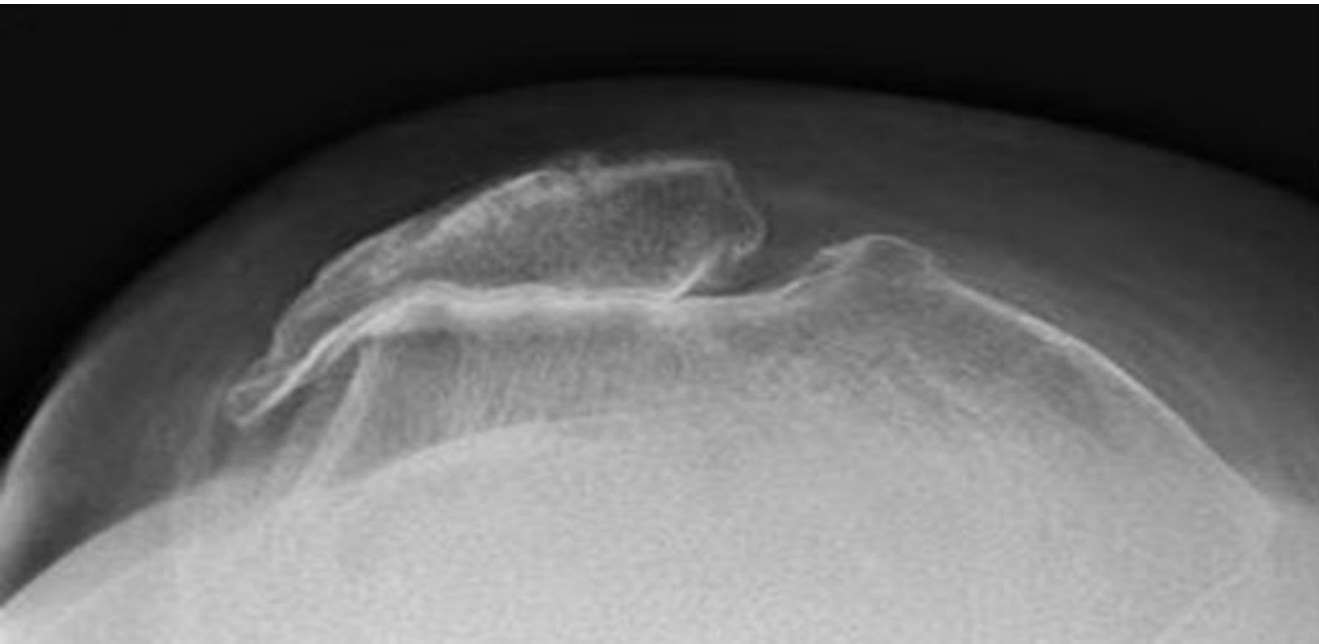
- Avoids complications related to patellar resurfacing
- Ability to withstand higher forces
- More physiologic patellofemoral kinematics
- No costs/OR time

Why?

- Arthritis
 - Would you do a uni?
 - Late patellofemoral arthritis
- Inflammatory
- 2nd opinions/standard of care
- Patellar denervation may not last or work at all
 - Von Jonbergen et al, JBJS Br 2011
 - Pulavarti et al. J Arthroplasty 2014
 - Spencer et al. J Arthroplasty 2023

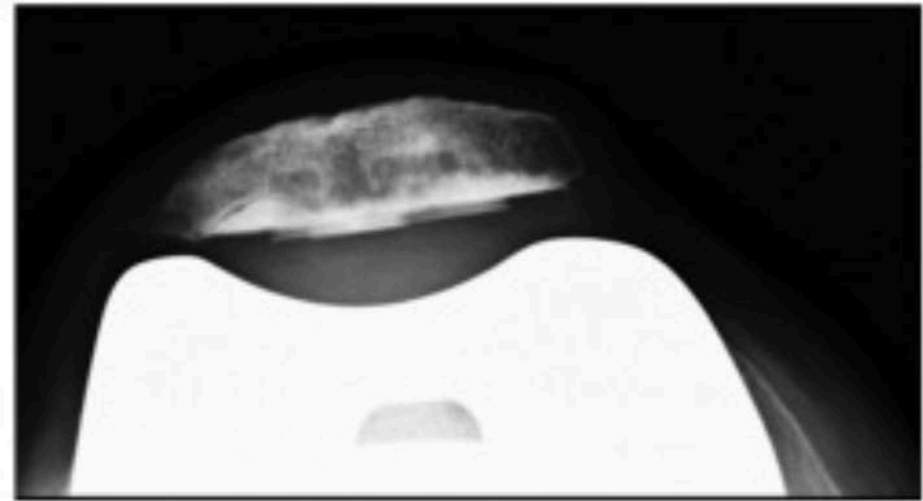
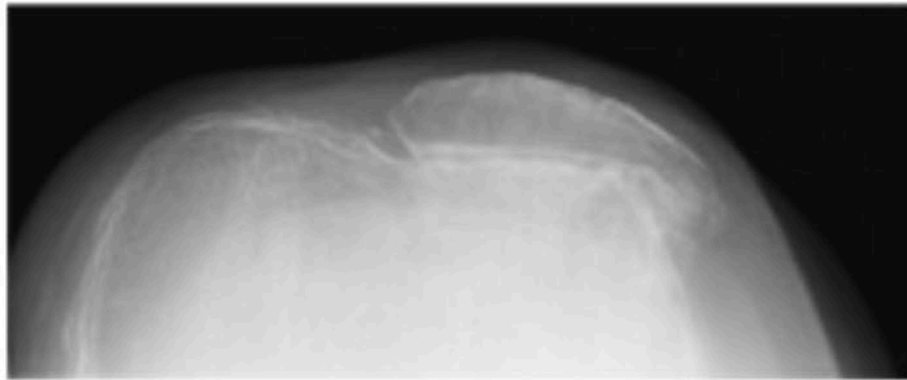
Why?

- Patellofemoral arthroplasties do well



Why?

- Late wear
- Instability
- Better biomechanics



Why?

- Higher revision rate in non-resurfaced
 - Nizard et al, Clin Orthop 2005
 - Clements et al, Acta Orthop 2010
- Reduced risk of reoperation
 - Pakos et al, JBJS Am 2005
- Greater incidence of anterior knee pain
 - Parvizi et al, Clin Orthop 2005
- Lower satisfaction when not resurfaced
 - Calvisi et al, AOTS 2009



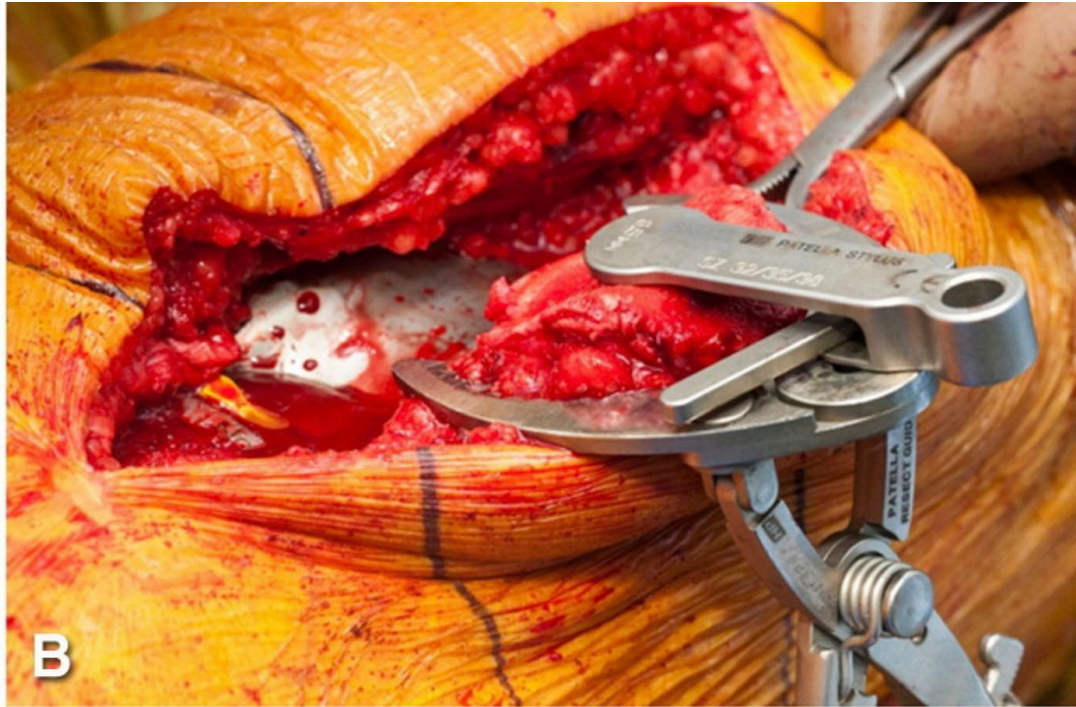
Cutting Techniques

- Freehand better symmetry and thickness
 - Camp et al, J Arthroplasty 2015
- No difference in anterior knee pain, function, outcomes between freehand and cutting guide
 - Yuan et al, Int Orthop 2019

Cutting Technique



Cutting Technique





Component Alignment

- Freehand better symmetry and thickness
 - Camp et al, J Arthroplasty 2015
- No difference in anterior knee pain, function, outcomes between freehand and cutting guide
 - Yuan et al, Int Orthop 2019

Resurfacing thin patellae?

- AAHKS Surgical Techniques & Technologies Award: Resurfacing the Thin Native Patella: Is It Safe?
 - Wilson JM et al, J Arthroplasty 2025
- Resurfacing the thin native patella was associated with high survivorship free of patellar revision at 10-year follow-up.
- 1 case of patellar loosening and 3 periprosthetic patella fractures.
- These risks must be weighed against the known higher incidence of revision when the thin native patella is left unresurfaced.