



European
Knee
Society



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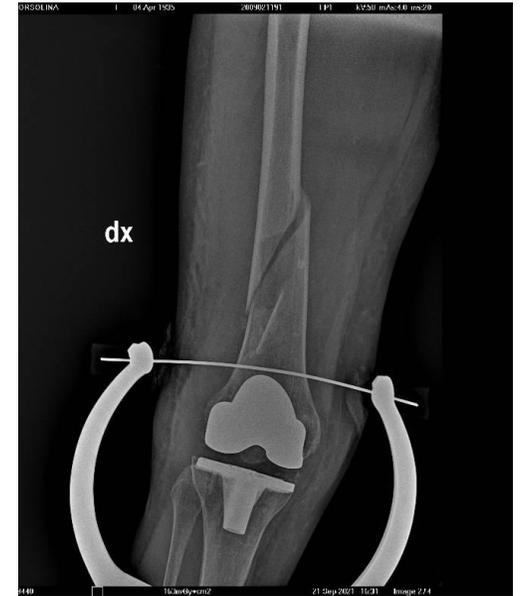
Sezione di Chirurgia Protesica ad Indirizzo Robotico
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Fratture di Femore: corretta indicazione

F. Benazzo, Stefano MP Rossi

Femoral Fractures

- Disaster for the patient
- Can be a challenge for the surgeon
- Mostly in elderly peoples



Aims:

- Solve the problem
- Early recovery



Different Fxs, different treatments

- Femoral neck fractures
- Diaphyseal fractures
- Distal femoral fractures
- Periprosthetic Fractures

Strategy

Keypoints:

- Stability of the treatment
- Early weight bearing
- Early rehabilitation



Strategy



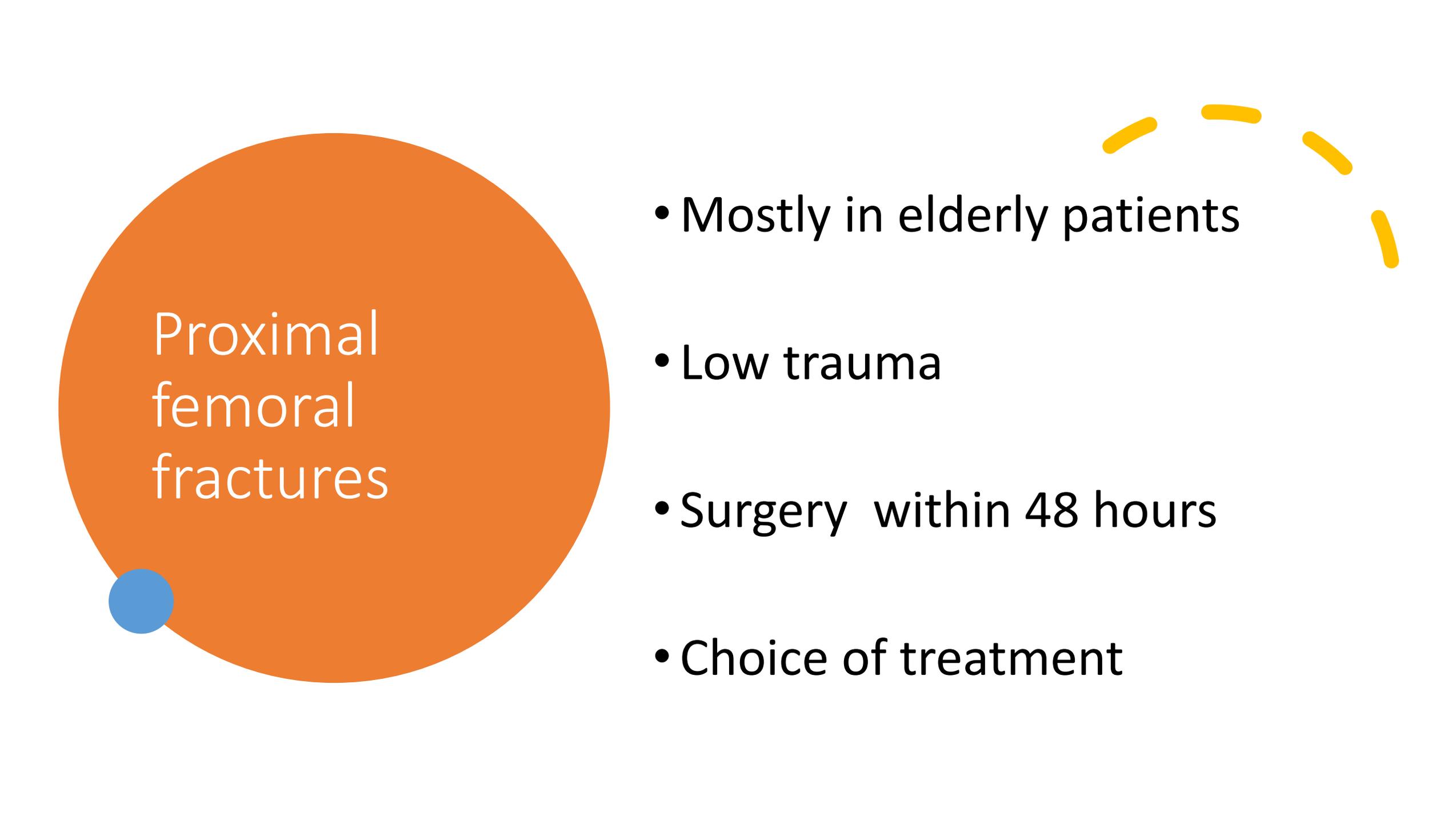
EARLY PROCEDURE



SAFE PROCEDURE



WITHIN 48 H??



Proximal femoral fractures

- Mostly in elderly patients
- Low trauma
- Surgery within 48 hours
- Choice of treatment

Proximal Femur: more frequent

Different options:



PLATE



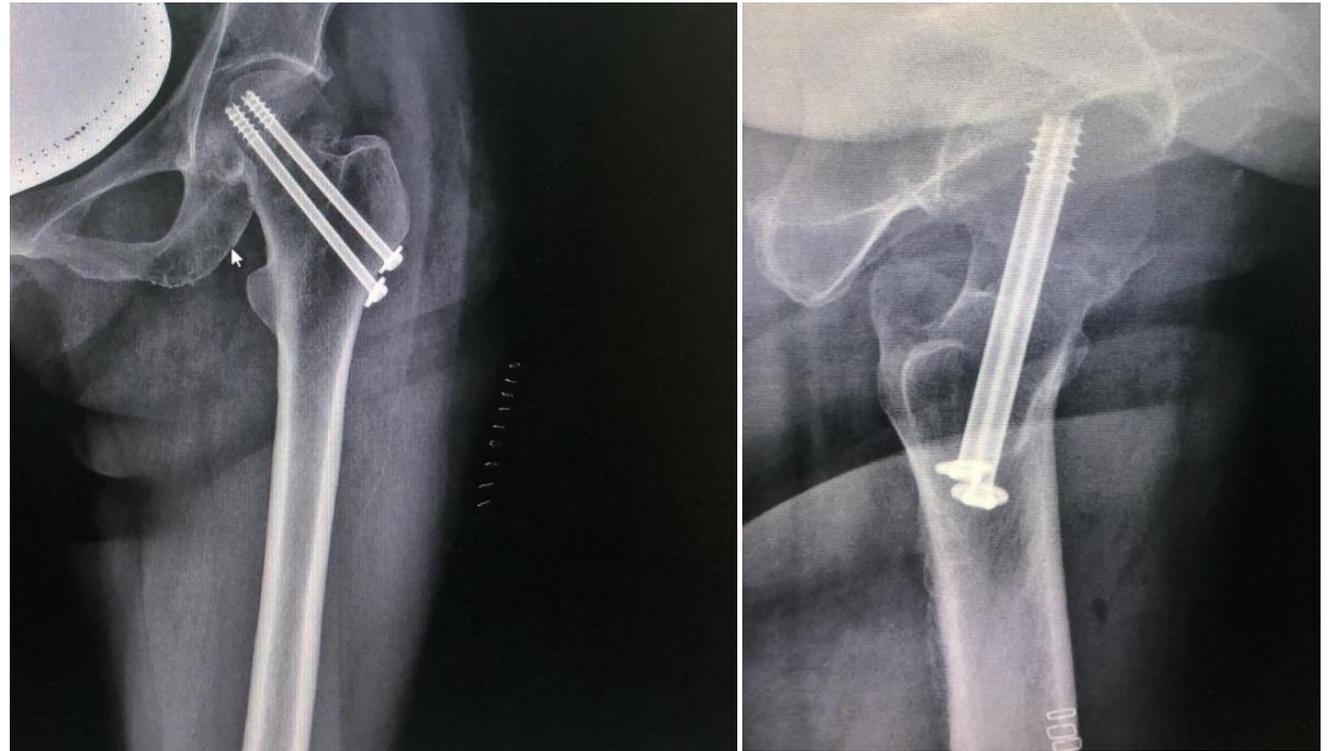
NAIL



REPLACE

Femoral Neck fractures

- Fixation (2-3 screws)
 - Young active
 - Valgus deviation
- Hemiarthroplasty
- Total Hip replacement



Femoral Neck fractures

Hemiarthroplasty VS Total Hip replacement

- Age
- Clinical Conditions
- Patients' demands
- Need for Dual Mobility (ie neurologic diseases or muscular insufficiency)



Proximal Lateral fractures (i.e Perthrocanteric or Subtrochanteric fxs)

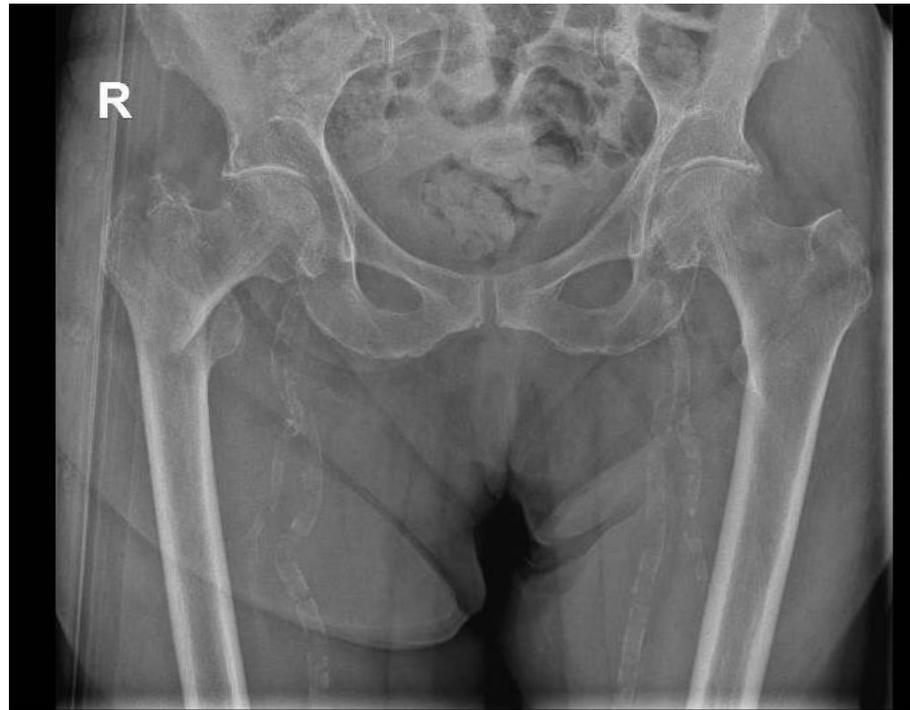
- Hemiarthroplasty still an option
 - Advantages of early weight bearing
- Fixation most frequent treatment
 - Nail
 - Plate (DHS)



Proximal Lateral fractures (i.e Perthrocanteric or Subtrochanteric fxs)

Hemiarthroplasty as our preferred choice

- More demanding
- Cerclage

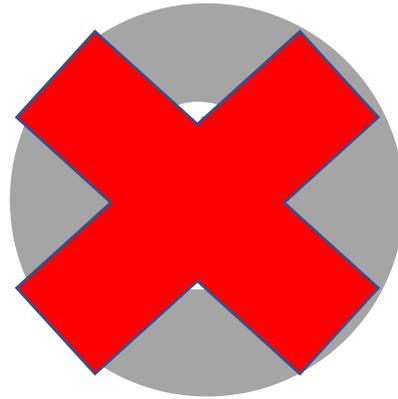


Femoral Shaft

Need to fix it



NAILING



REPLACING IS NOT AN
OPTION



PLATING

Femoral Shaft

Plate or nail?

- Type of fracture
- Surgeons experience
- Advantages and disadvantages both techniques



Femur: Plate

- Difficult in comminute fractures
- Bone quality
- Big exposure
- New plates
- Stable fixation
- Early weight bearing



Distal femur

Different options:



PLATE



NAIL



REPLACE

Distal femur

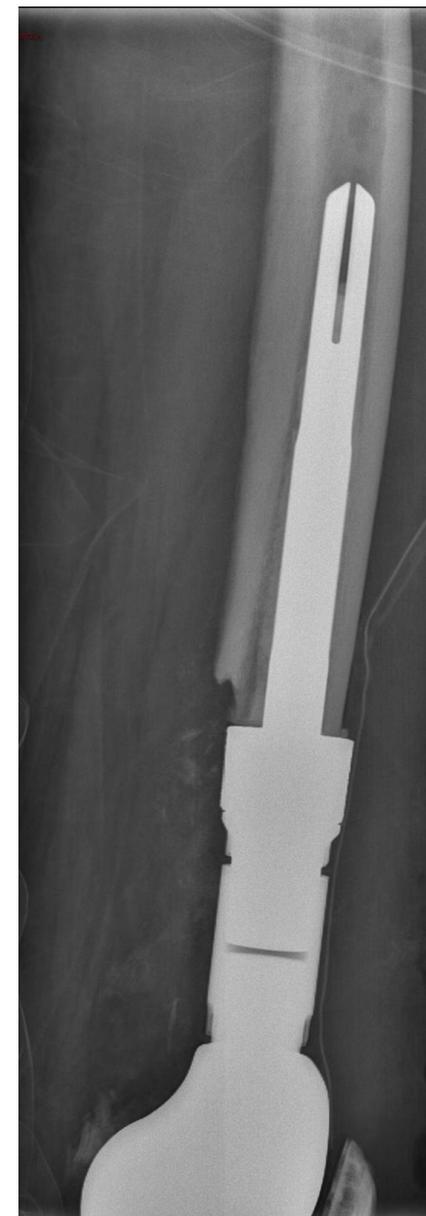
Things to consider

- Type of patient
- Age
- Demands

- Type of fracture
- Recovery need



Distal femur: extreme indications



Periprosthetic Fractures

Different options:



PLATE



NAIL



REPLACE

Strategy

Keypoint:

- Stability of implant



Hip:

Periprosthetic femoral fractures: Vancouver Classification



Duncan CP; Fractures of the femur after hip replacement. Instr Course Lect.44: (293-304) 95

A, B1 and C (HAPPY HIP) → Conservative treatment vs ORIF

B2 and B3 (UNHAPPY HIP) → Revision of implant vs ORIF

Knee: Different Classifications: Rorabeck/Felix/AO-Recon

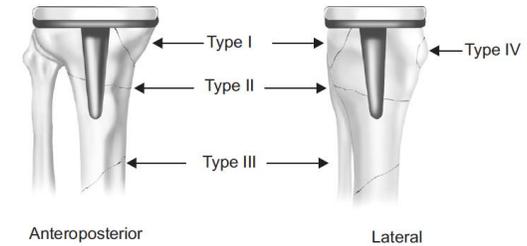


Fig. 8. Classification of periprosthetic tibial fractures described by Felix et al.³⁰.



■ ARTHROPLASTY

Field testing the Unified Classification System for periprosthetic fractures of the femur, tibia and patella in association with knee replacement

AN INTERNATIONAL COLLABORATION

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The Unified Classification System (UCS) was introduced because of a growing need to have a standardised universal classification system of periprosthetic fractures. It combines and simplifies many existing classification systems, and can be applied to any fracture around any partial or total joint replacement occurring during or after operation. Our goal was to assess the inter- and intra-observer reliability of the UCS in association with knee replacement when classifying fractures affecting one or more of the femur, tibia or patella.

Type 1: Stable implant, non dislocated



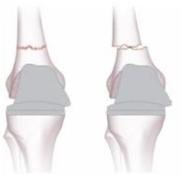
Type I

Type 2: Dislocated fracture/stable implant



Type II

Type 3: Dilocated fracture, implant unstable



Type III

Femur fixation. Plate or nail ?

Variables

- Type of fracture
- Implant in place
- Surgeon's experience



Femur: Want to nail it?

Read this first!

- Variables you need to know for decision
- Technical tips
- Know the implant

ORIGINAL ARTICLE

Periprosthetic Supracondylar Femoral Fractures Above a Total Knee Replacement: An Updated Compatibility and Technique Guide for Fixation With a Retrograde Intramedullary Nail

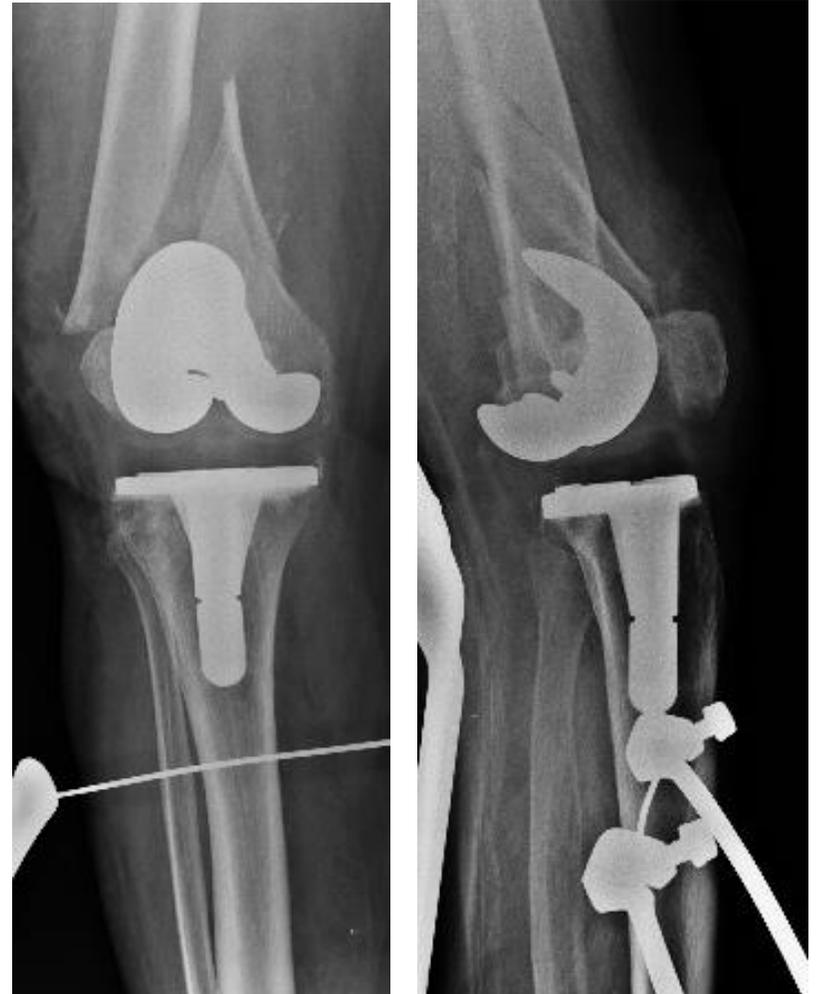
Daniel E. Gerow, DO,^a Hunter L. Ross, DO,^a Andrew Bodrogi, MD,^b Kory J. Johnson, DO,^c and Terrence J. Endres, MD^c

TABLE 1. TKA and Retrograde Femoral Nailing Compatibility

Manufacturer	Model	Size/Description	Intercondylar Distance, mm	Compatible?	Notch Too Far Posterior?
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Femur replacement

- Bad bone
- Loose implant
- Early weight bearing
- Revision or segmental implants?



Segmental

-
- Low demanding patient
 - Difficult fixation around a CCK implant



Conclusions

- Have a strategy
- Know your options
- Plan your surgery accurately

