

DISTAL FEMORAL FRACTURES

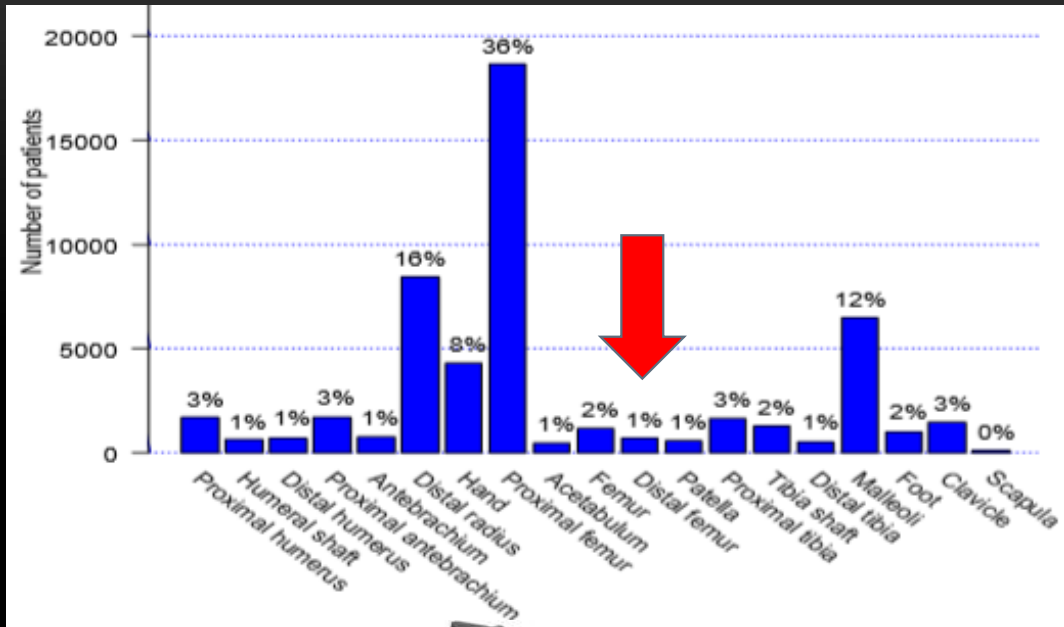


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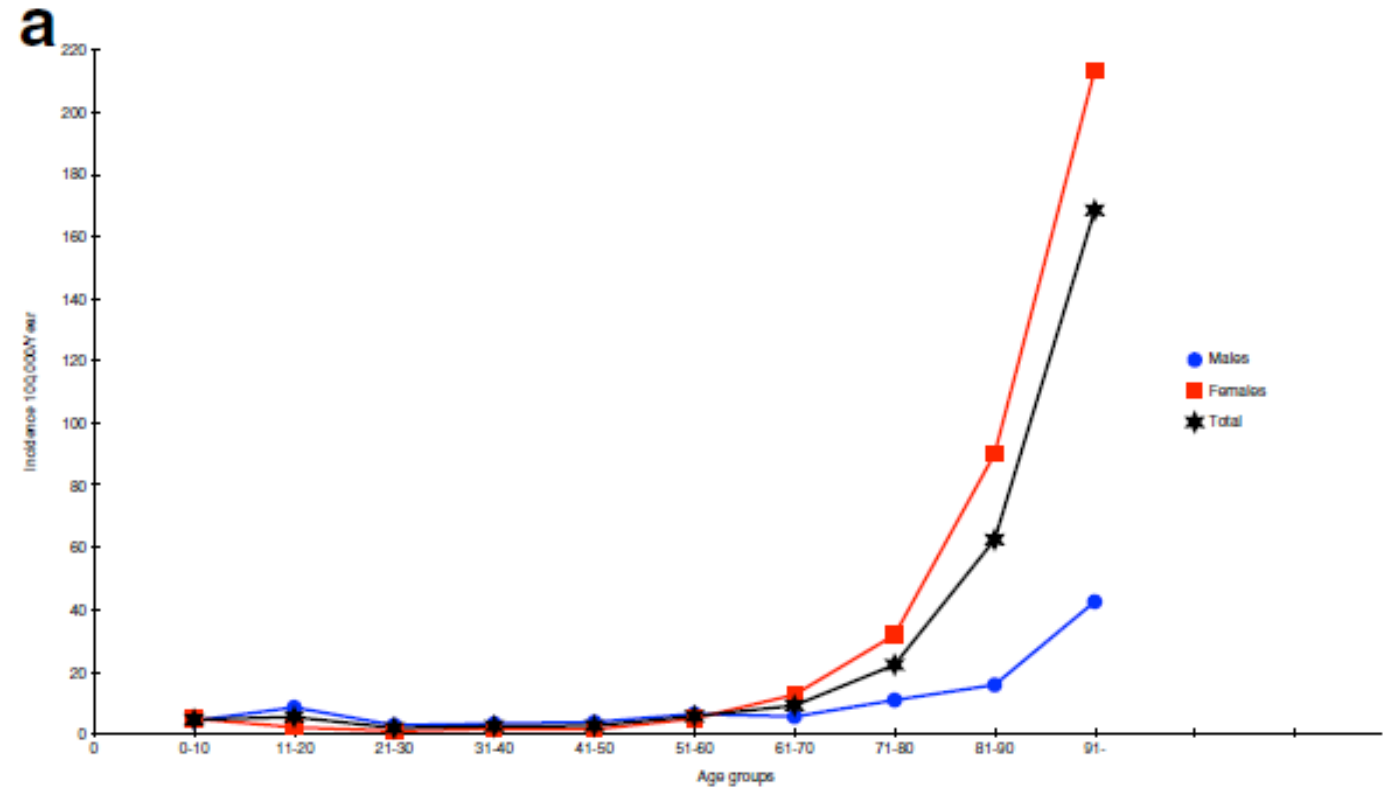
- Yngre mænd og ældre kvinder



DISTAL FEMUR FRAKTUR (DANSK POPULATION)

Elsøe R et al Int Orthop 2018

- Incidence: 9 per 100.000 per år
- Age: 62 år (72 for kvinder)
- Køn: 67% are females
- Flest lav energi frakturer (97%)
- Simple frakturer (33A1 and 33A2) mest almindelige



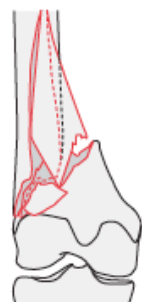
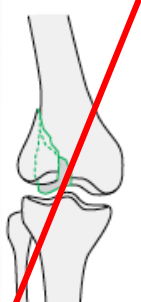

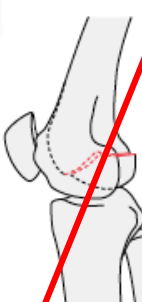





CLASSIFICATION

35-50%

18-30%

7-18%

33-A1	33-A2	33-A3	33-B1	33-B2	33-B3	33-C1	33-C2	33-C3
								
33-A extra-articular fracture			33-B partial articular fracture			33-C complete articular fracture		
33-A1 simple			33-B1 lateral condyle, sagittal			33-C1 articular simple, metaphyseal simple		
33-A2 metaphyseal wedge and/or fragmented wedge			33-B2 medial condyle, sagittal			33-C2 artic. simple, metaphyseal multifragmentary		
33-A3 metaphyseal complex			33-B3 frontal			33-C3 articular multifragmentary		

BEHANDLINGSMÅL

- Stabil osteosyntese, der tillader tidlig mobilisering og vægtbæring
- Anatomisk reposition og absolut stabilitet på intraartikulære frakturer
- Genskabe længde, akse og rotation på femur
- Bevare lokal biologi (blodforsyning)



High Mortality

ORIGINAL ARTICLE

Patient Mortality in Geriatric Distal Femur Fractures

Myers, Philip DO^{*}; Laboe, Patrick MD[†]; Johnson, Kory J. DO[‡]; Fredericks, Peter D. MD[§]; Crichlow, Renn J. MD^{*}; Maar, Dean C. MD^{*}; Weber, Timothy G. MD^{*}

[Author Information](#) 

Journal of Orthopaedic Trauma 32(3):p 111-115, March 2018. | DOI: 10.1097/BOT.0000000000001078

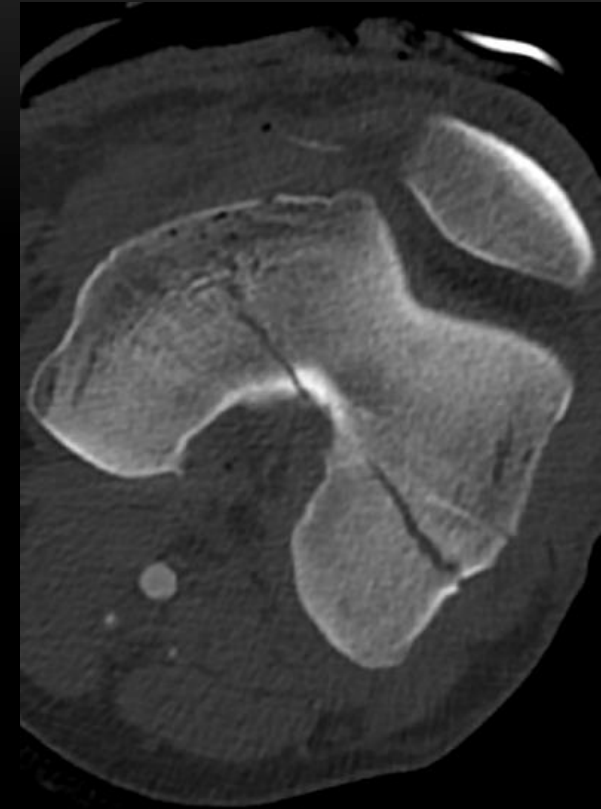
Overall mortality for distal femur fractures 13.4%
Surgical treatment
>2 days after injury = higher patient mortality.

LEARNING POINT #1

DISTAL FEMUR FRAKTUR HAR HØJ MORTALITET,
OPERATION < 48 TIMER REDUCERER
MORTALITETEN

DIAGNOSTIK

- Standard røntgen
- CT scanning med rekonstruktioner
 - 55% intra artikulære *Injury* 2006;37:691-7



Retrograd søm

R



Mest almindelige
muligheder for fikstation

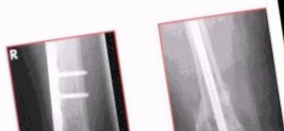
Låseskinne



EVIDENCE – PLATES VS NAILS

Locked Plating vs. Retrograde Nailing for Distal Femur Fractures: A Multicenter Randomized Trial, Tornetta et al. Presented at OTA 2013, Phoenix, AZ

- 33 A1-3, C1 fractures at 12 trauma centers
- 126 pts: 76 locked plates vs 80 nails
- No difference in pts or injuries



Indian Journal of Orthopaedics (2021) 55:646–654
<https://doi.org/10.1007/s43465-020-00331-z>

ORIGINAL ARTICLE

Comparing Intramedullary Nailing Versus Locked Plating in the Treatment of Native Distal Femur Fractures: Is One Superior to the Other?

Jaclyn M. Jankowski¹ · Patrick ...
Richard S. Yessierli ...
K. Shah¹ · David M. Keller¹ · Robinson E. Pires² · Frank A. Liporace¹ ·



No difference

(141)
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CURRENT CONCEPTS REVIEW

Locked Plating Versus Retrograde Intramedullary Nailing for Distal Femur Fractures: a Systematic Review and Meta-Analysis

Deepak Neradi, MS Orthopaedics¹; Praveen Sodavarapu, MS Orthopaedics¹; Karan Jindal, MS Orthopaedics¹; Deepak Kumar, MS Orthopaedics²; Vishal Kumar, MS Orthopaedics²; Vijay Goni, MS Orthopaedics³

FACTORS TO THINK ABOUT IN PLANNING SURGERY

- Patient characteristics
 - Age, comorbidity, function
- Bone quality
 - Osteoporosis
- Fracture type
 - Intra articular
 - Medial comminution
 - Periprosthetic (nails)
 - Very low fractures
- Surgical approach
 - Lateral vs anterior
 - Open vs minimally invasive

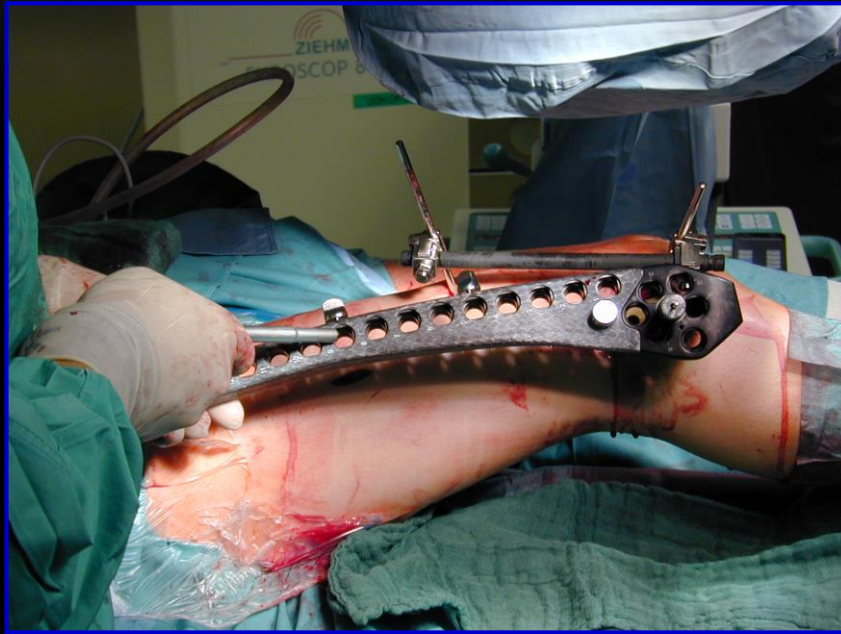


SIMPEL EKSTRAARTIKULÆR

33-A1

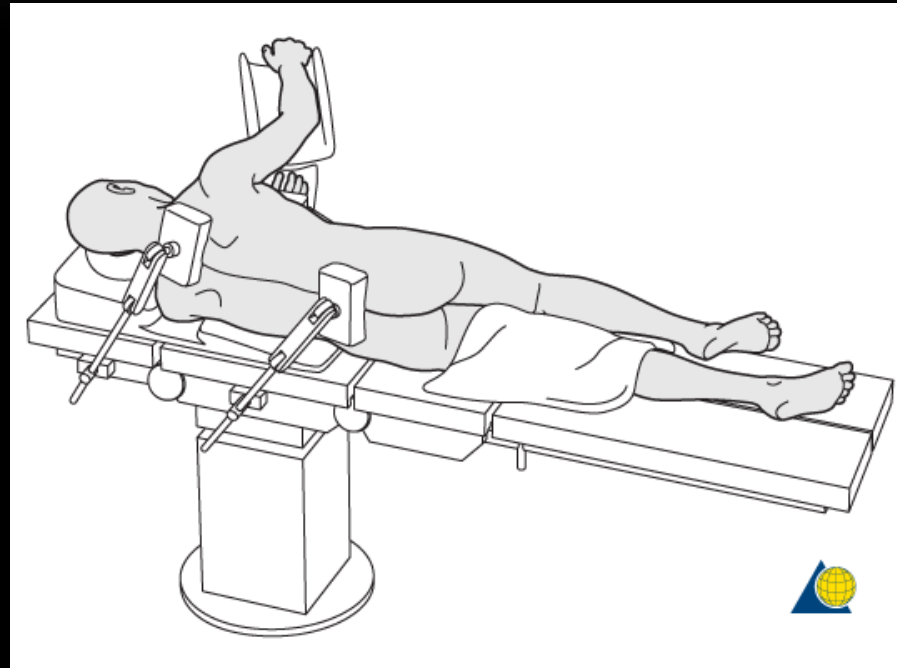


MINIMAL INVASIV

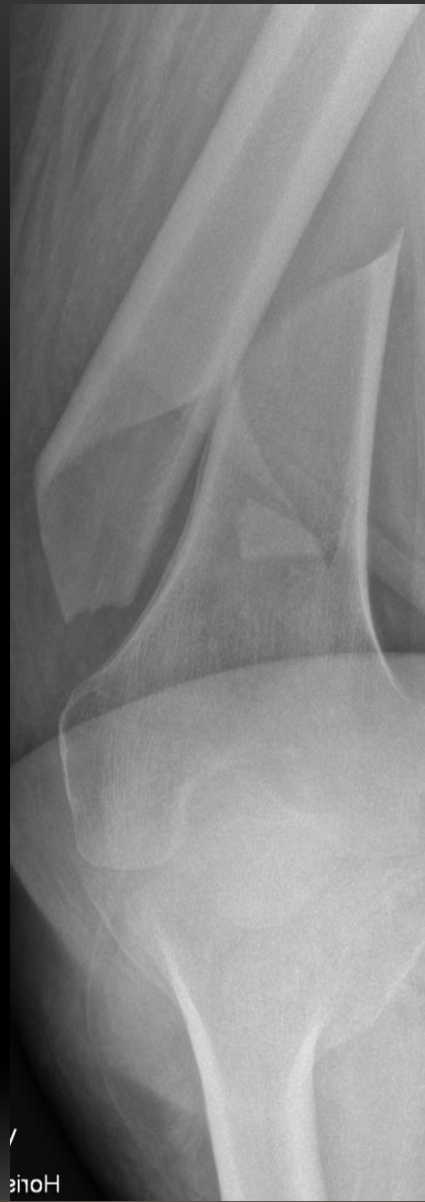


Længden skal være korrigeret inden skinnen fikseres

SIDELEJE – MINI ÅBEN – DIREKTE REPOSITION – KABLER/SKRUER



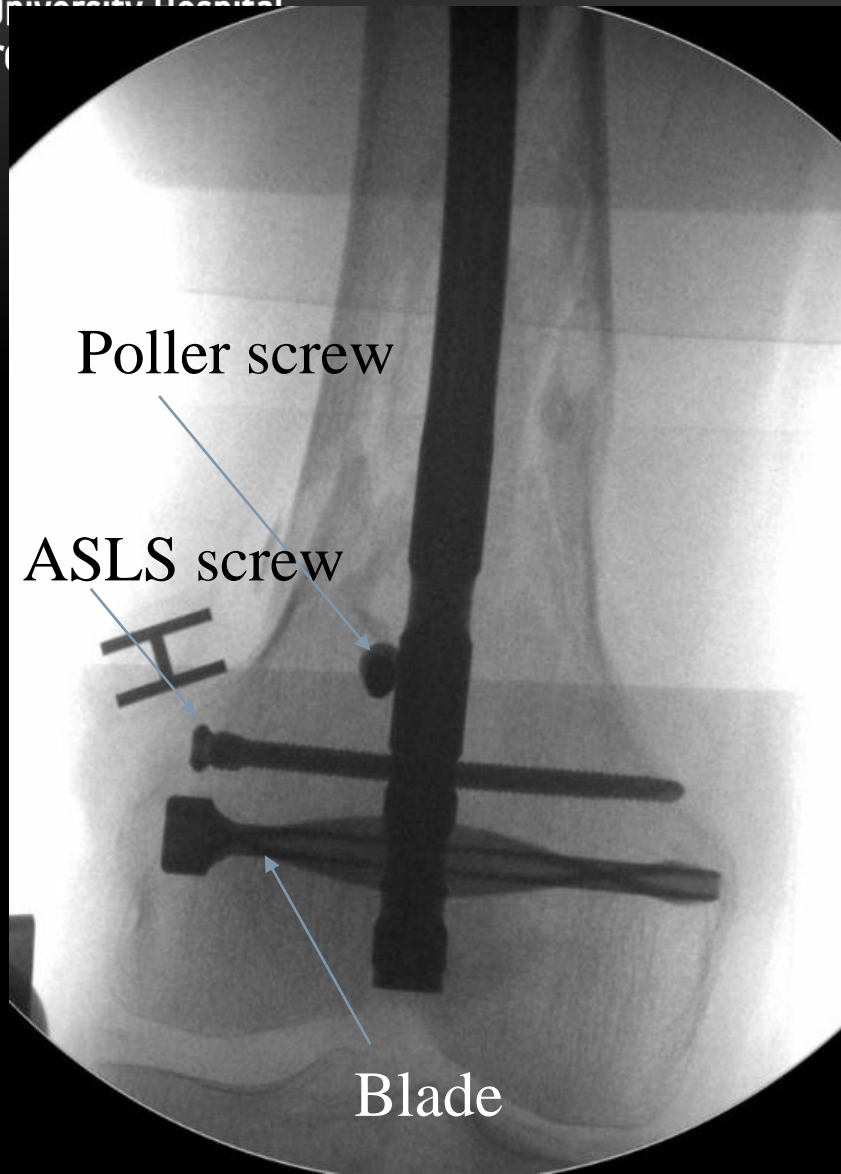
FIKSATION



Ekstraartikulær, metafysær kompleks

33-A3

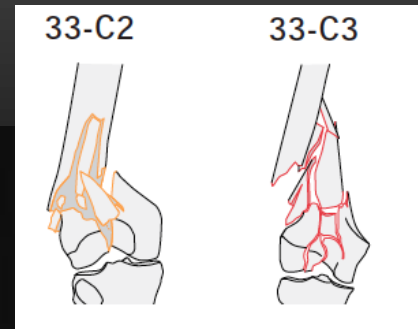




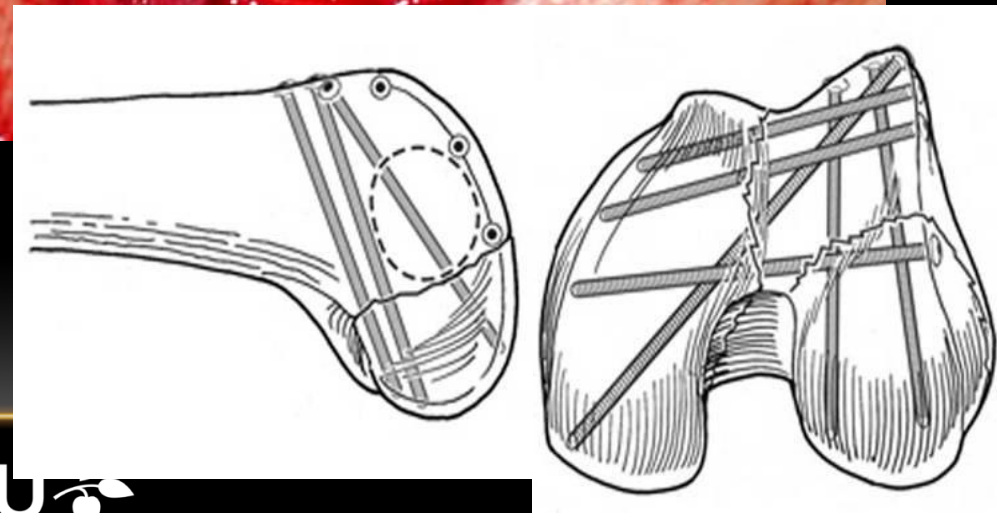
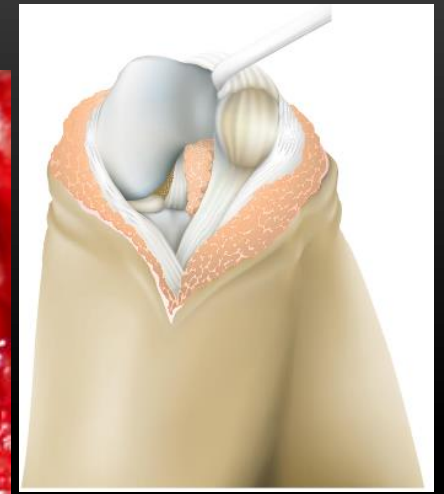
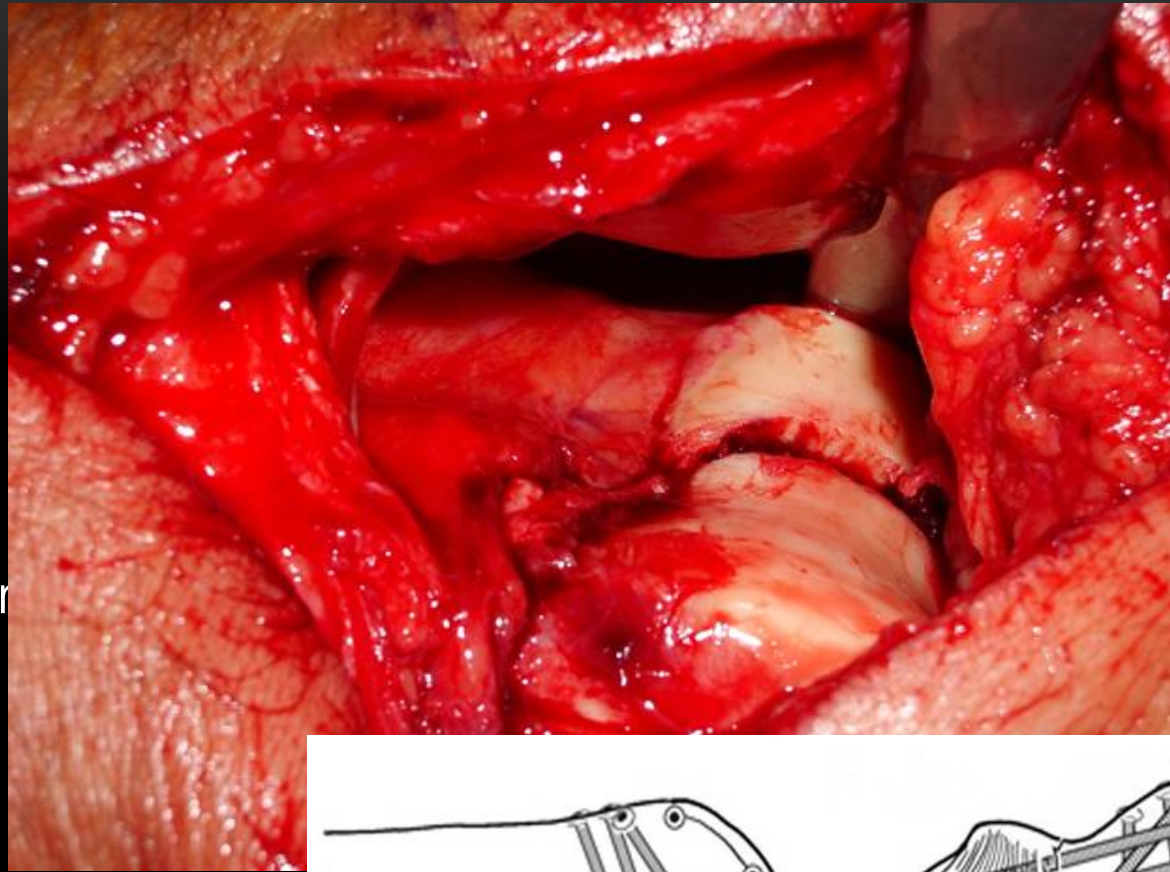
LEARNING POINT # 2

VED EKSTRA ARTIKULÆRE FRAKTUR ER
LOCKING PLATE ER WORK HORSE, MEN SØM ER
BEDRE I NOGLE CASES

Metaphyseal comminuted – displaced or complex intra articular



- **Locking plate**
- Supine (traction)
- Big anterior midline skin incision
- Lateral para-patellar approach
- Open reconstruction joint
- Lateral locking plate
- Medial augmentation (plate)



OUH
00
S

Låseskinne

Medial buttres
skinne

Lagskruer

PostOP

4 Mo



LEARNING POINT # 3

INTRAARTIKULÆRE FRAKTURER KRÆVER ÅBEN,
ANATOMISK REPOSITION OG FIKSATION MED
ABSOLUT STABILITET

CASE, 67-YEAR-OLD FEMALE, OSTEOPOROSIS



PRIMARY EX-FIX

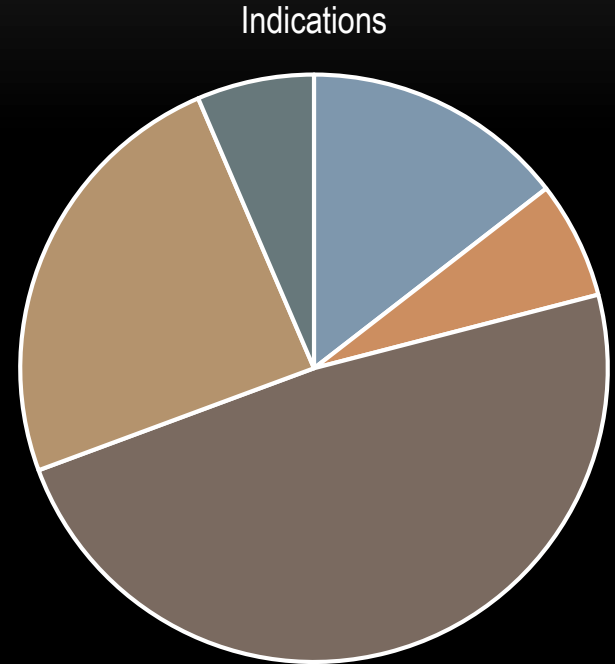
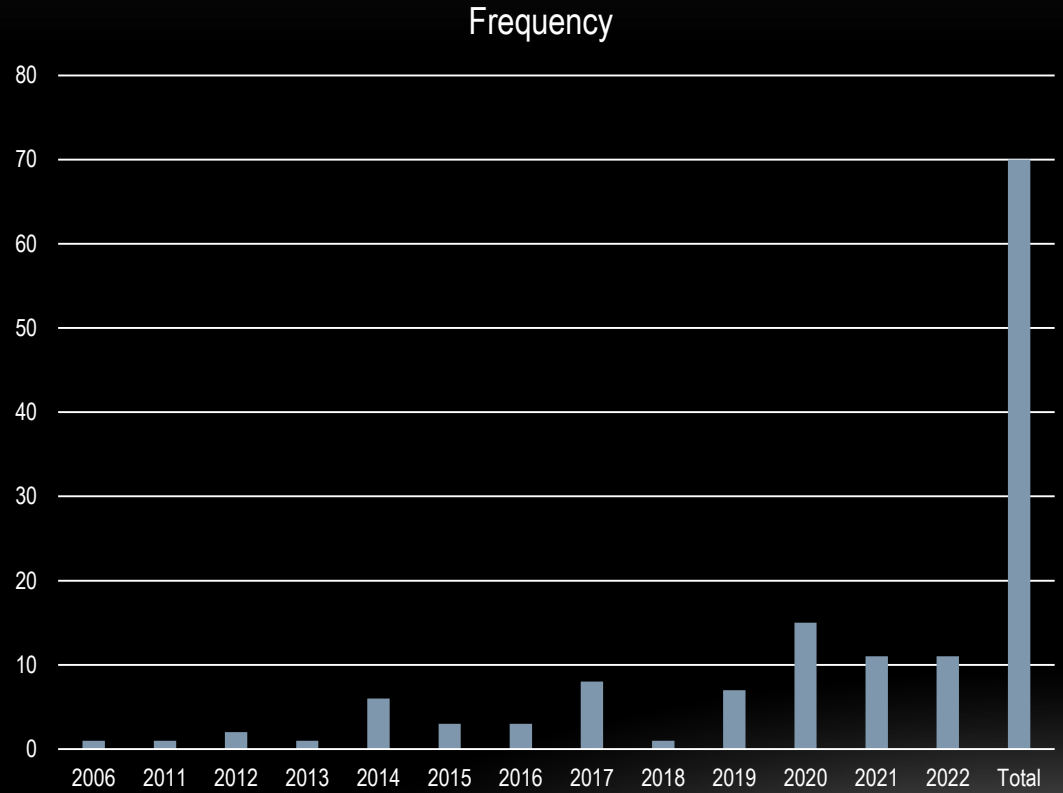


AFTER FEW DAYS, DISTAL FEMORAL REPLACEMENT



3 months

OUR EXPERIENCE WITH DISTAL FEMORAL REPLACEMENT



- ostesynthesis failure
- primary fracture
- periprosthetic fracture
- revision with major bone loss

Y Corap BMC Musculoskelet Disord. 2022

LEARNING POINT # 4

RESPEKTER GRÆNSER – ALLOPLASTIK KAN
VÆRE BEDSTE LØSNING

TAKE HOME MESSAGE

- Flest ældre, hurtig mobilisering redder liv
- Locking plate er work horse, men søm er bedre i nogle cases
- Intraartikulære frakturer kræver åben reposition og fiksation med absolut stabilitet
- Respekter grænser – alloplastik kan være bedste løsning

