

Ankle Malunions Supramalleolar Deformity

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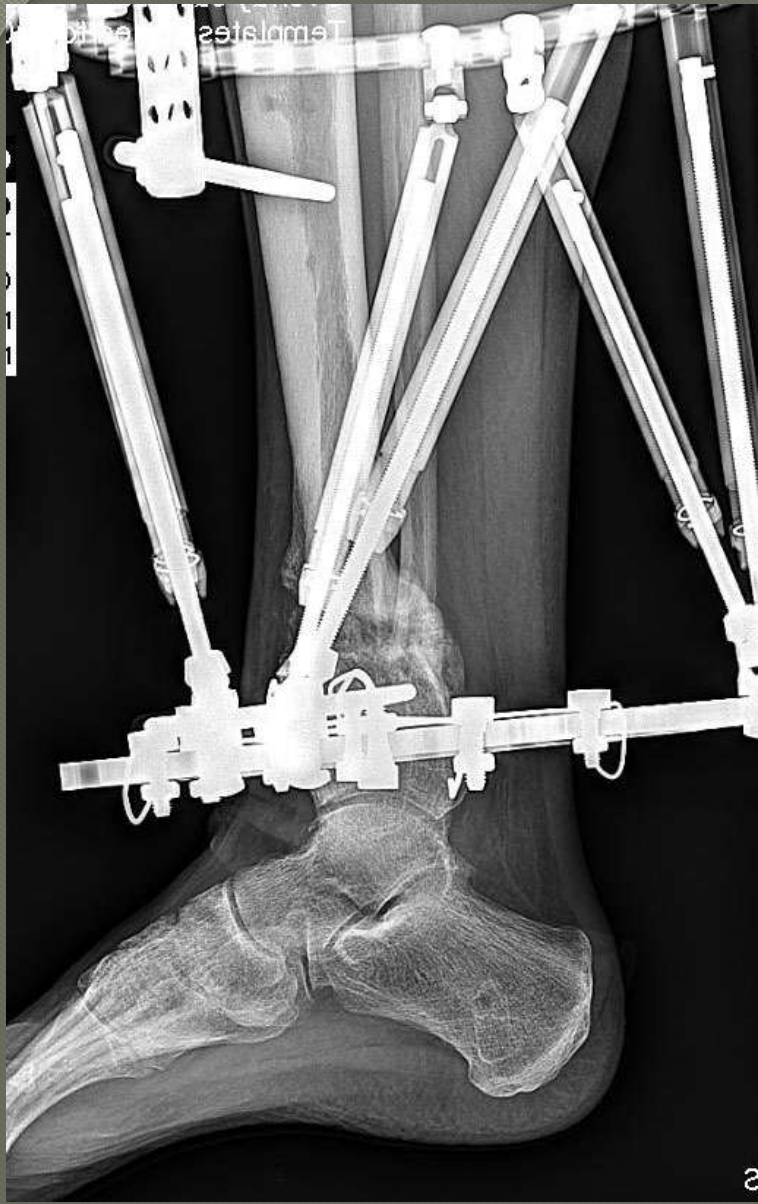
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Indications



before







after

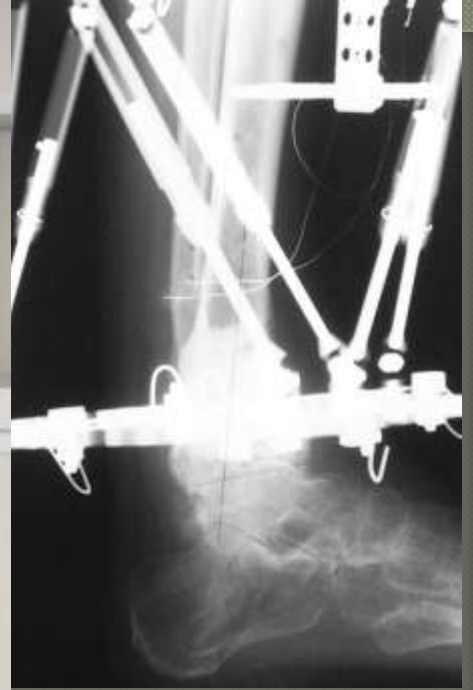
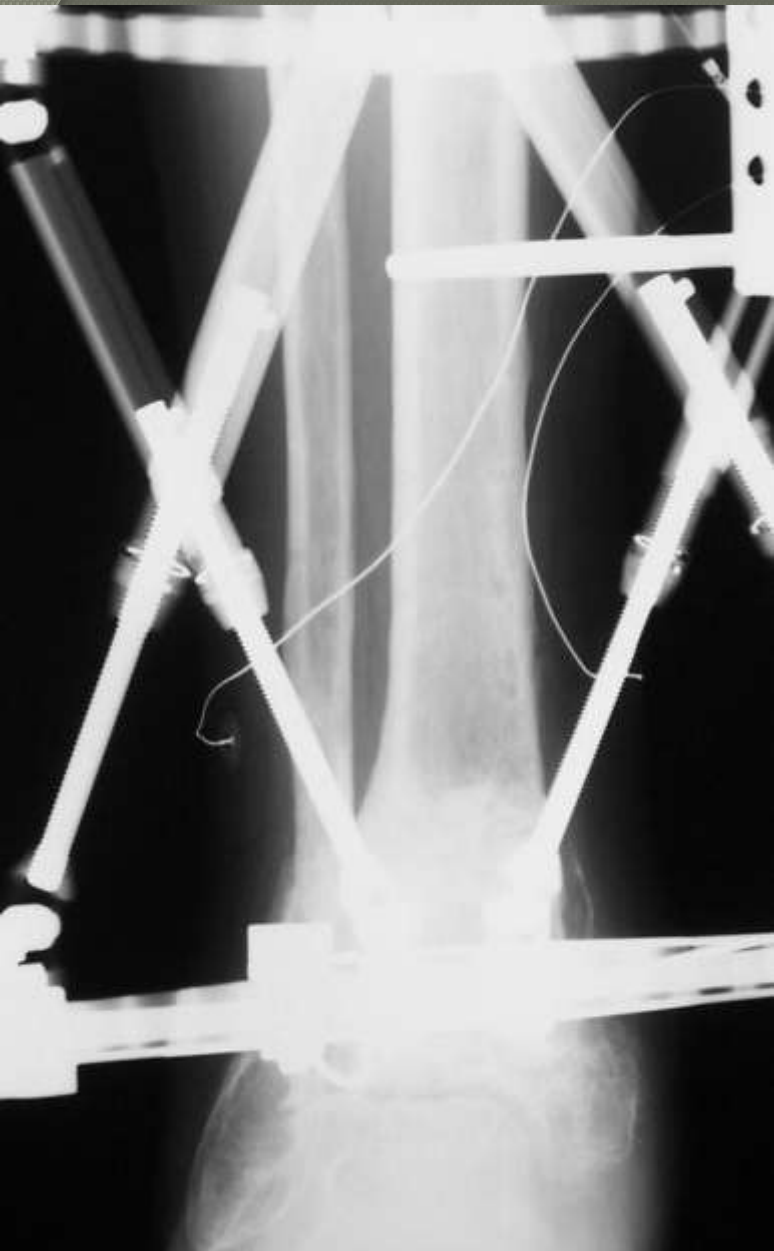




before









after





after



The Ilizarov Method

- Address all facets of deformity including length
- Gradual correction
 - Less traumatic
 - Patient feedback for position
 - Less risk of NV insult
- Minimally invasive exposure
- Weight bearing is allowed

Tibia malunion, LLD 6cm, BEFORE





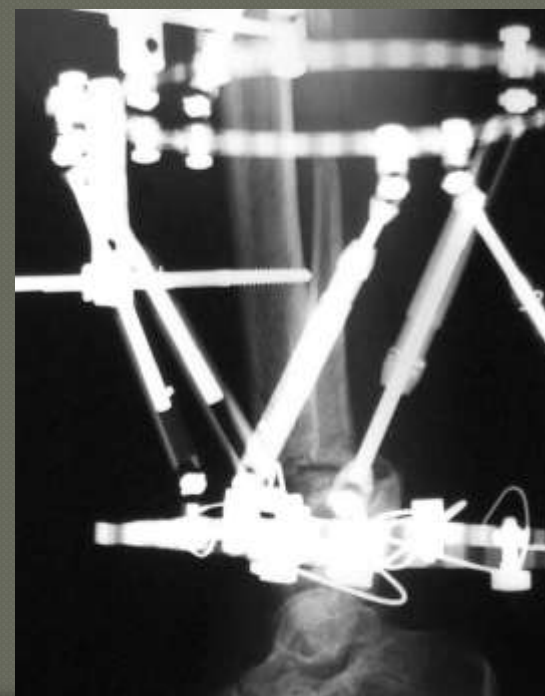
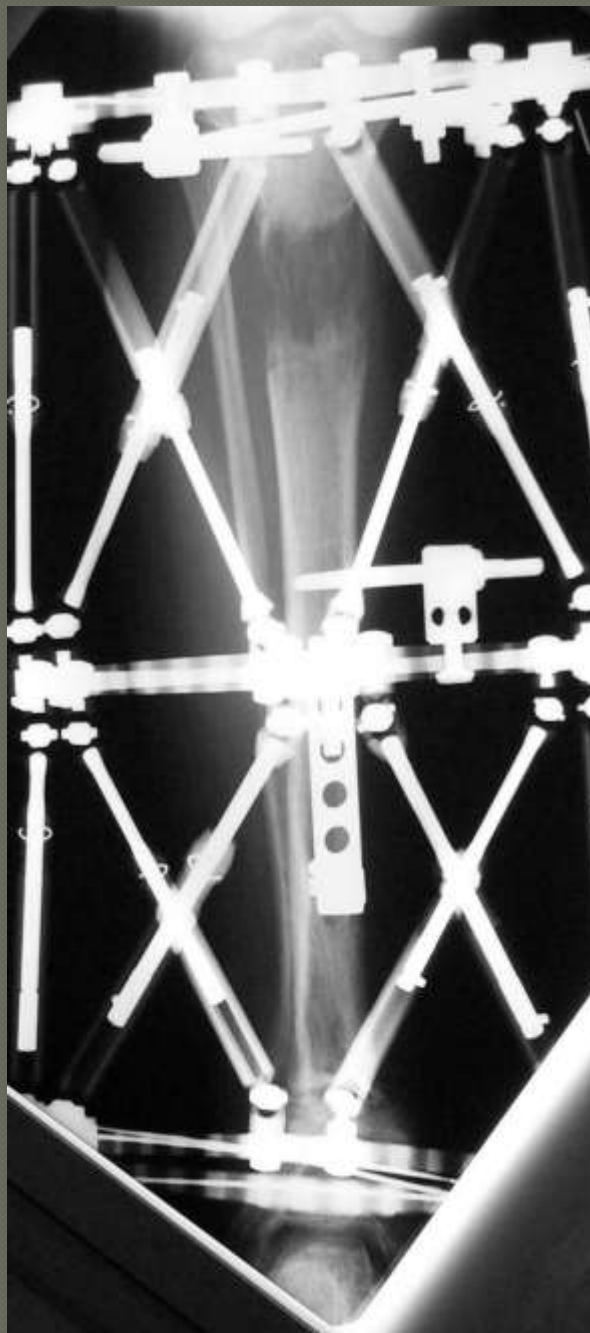
Postop, Double level osteotomy



2 separate programs
Independent of each other



4 months



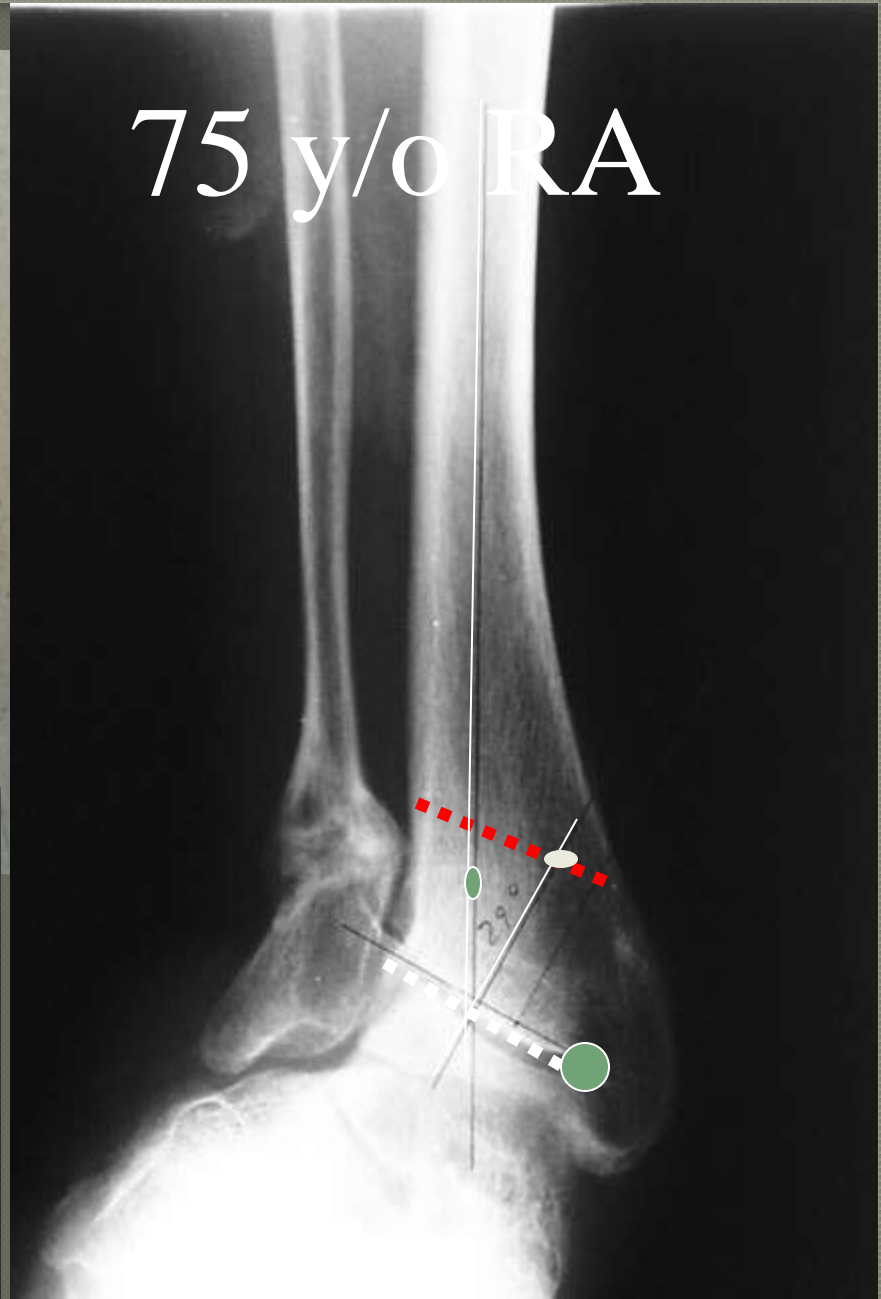


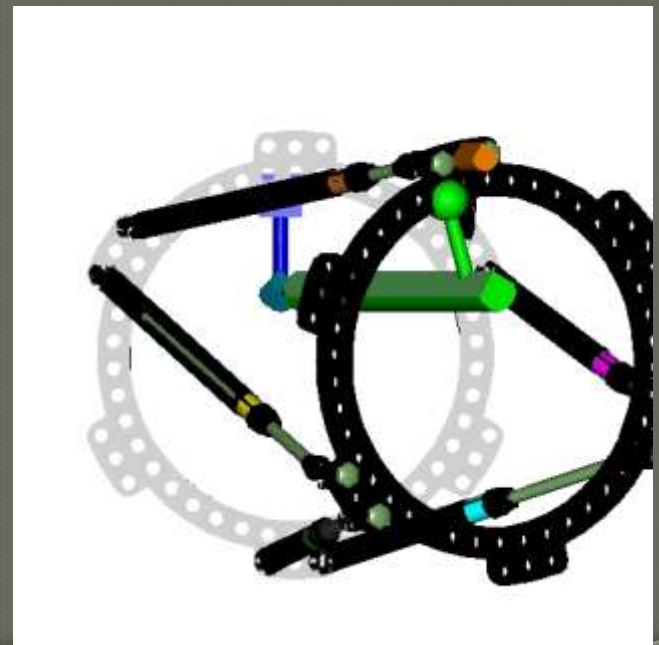
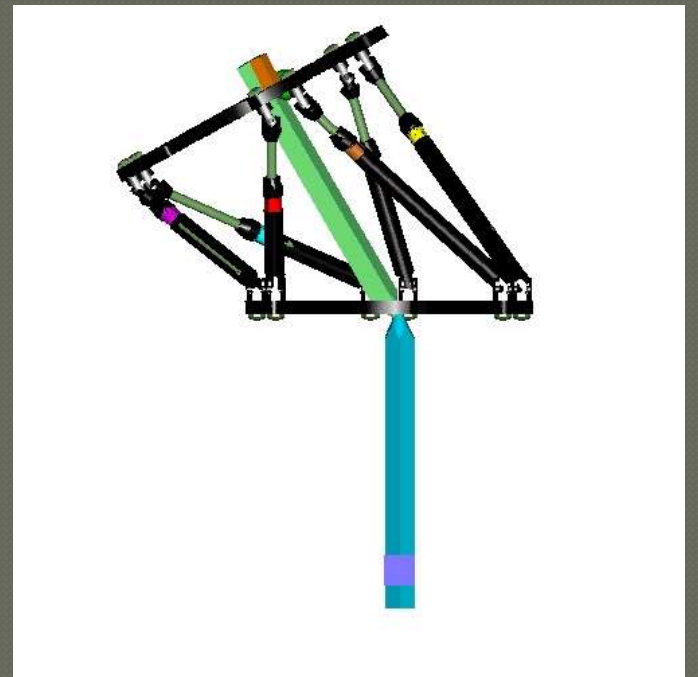
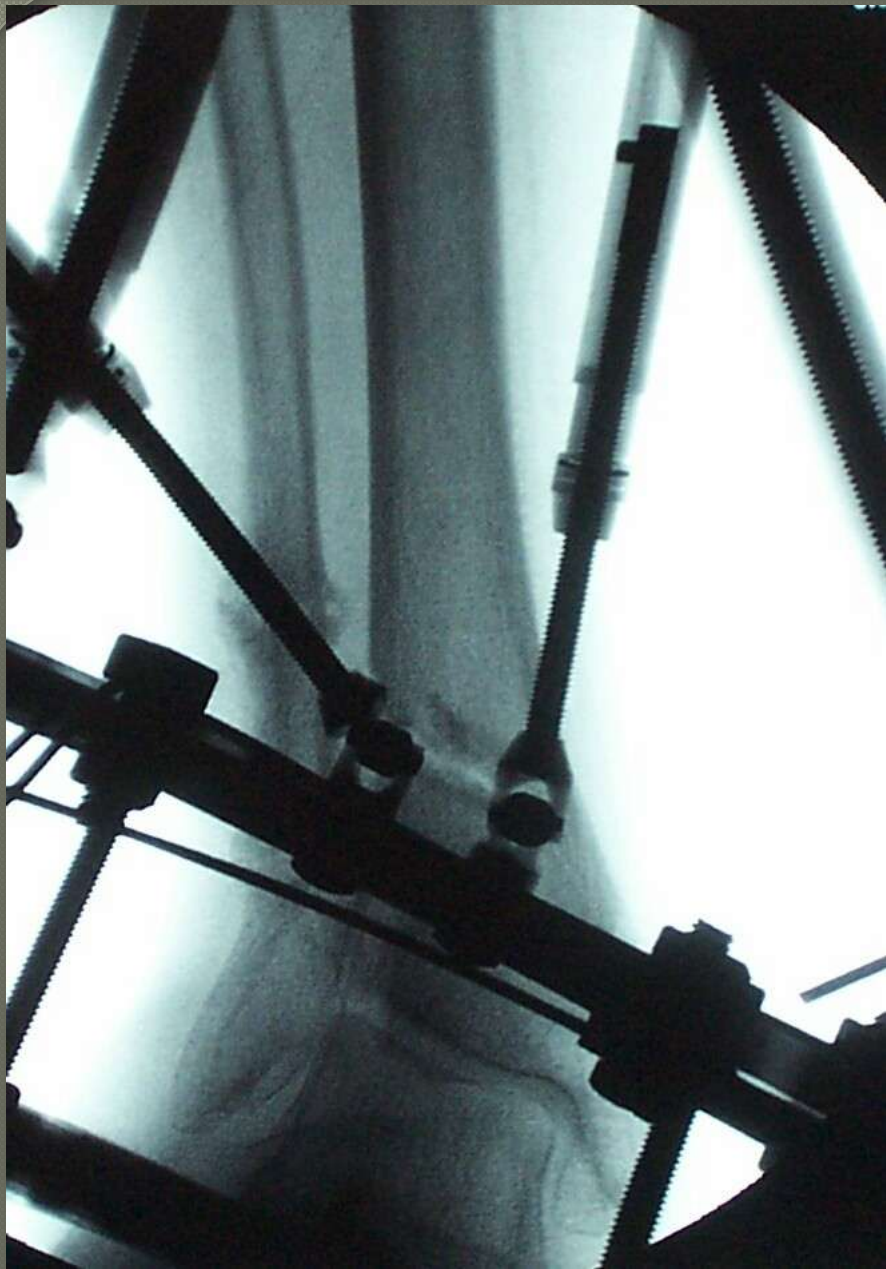


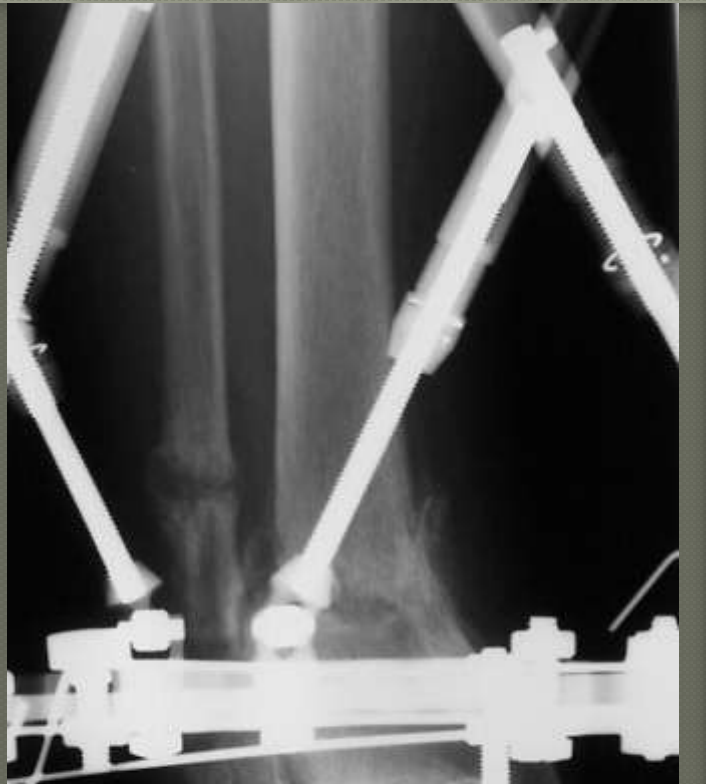
BEFORE



75 y/o RA







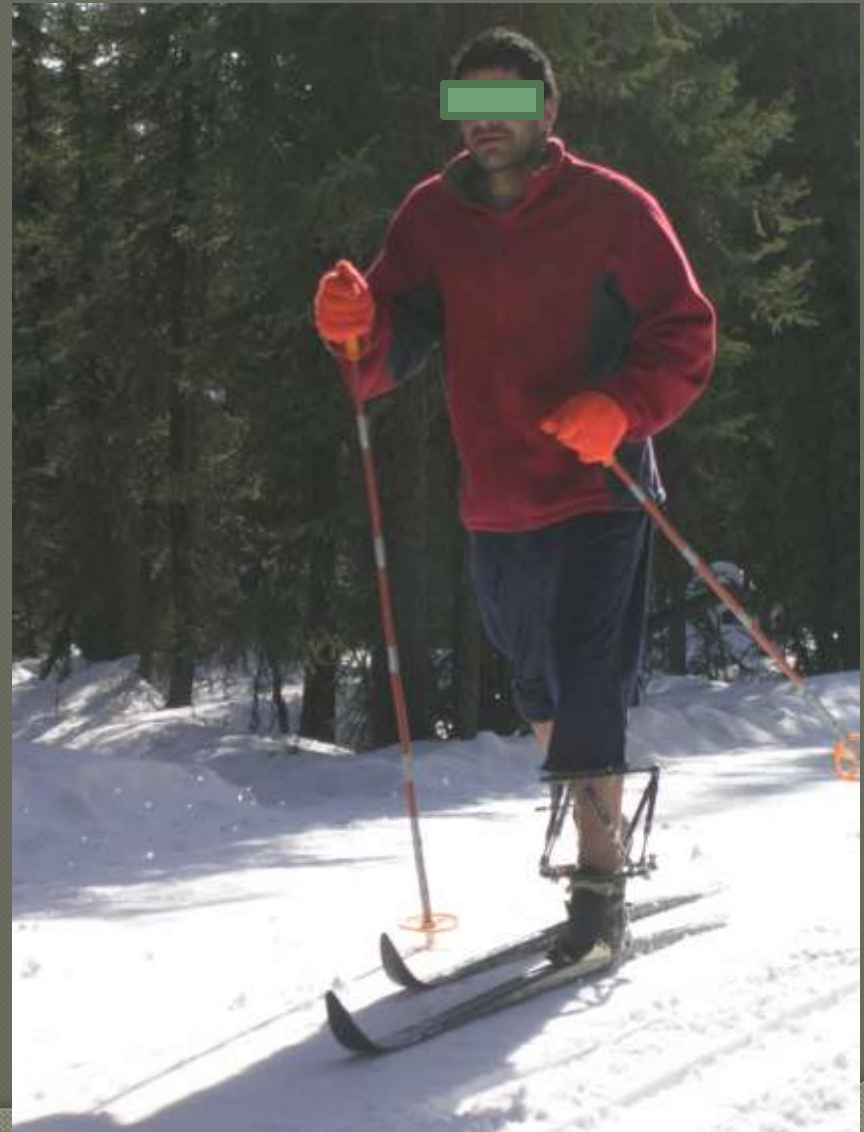
BEFORE

AFTER



Indications

- Malunion (tibial deformity)
- Nonunion with deformity
- Supramalleolar bone loss
- Altered malleolar relationship

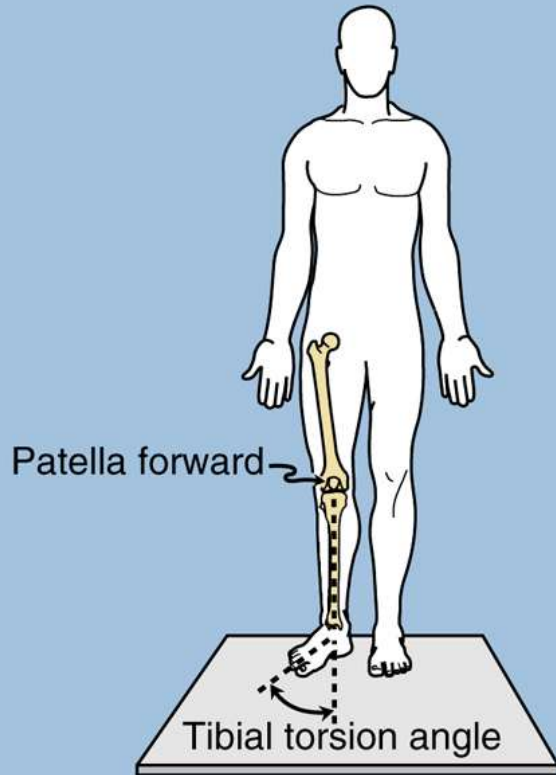


Associated issues

- Ankle contracture
- Hindfoot contracture
- Arthritis of ankle and hindfoot
- Proximal tibial deformity
- LLD

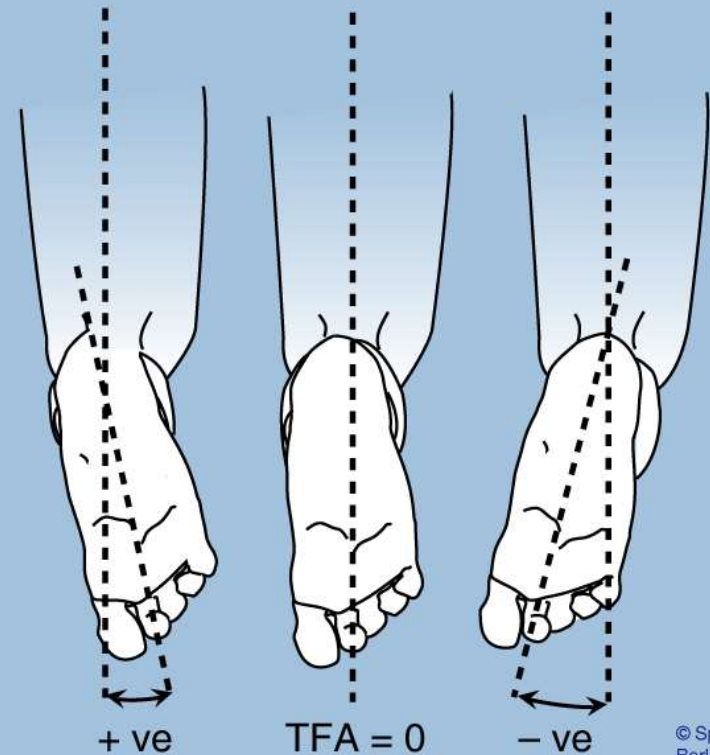
Rotational deformity -tibia

9-03c



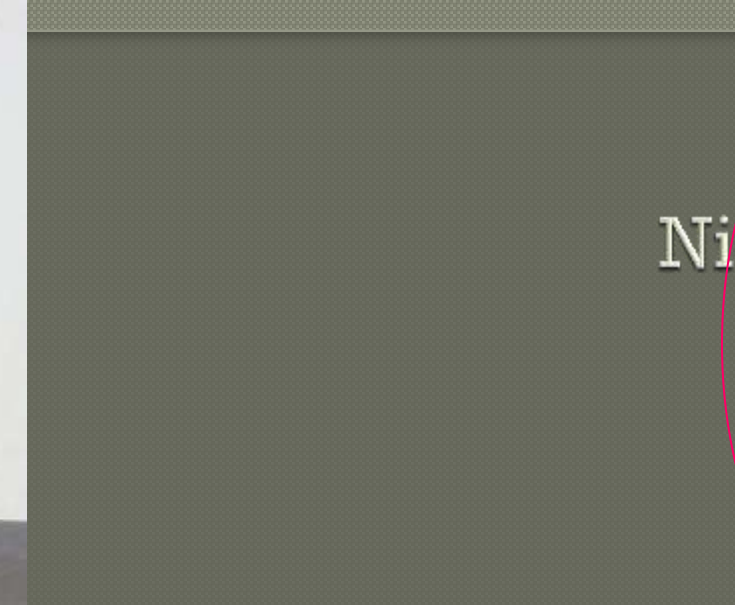
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Bt

9-03a





Hindfoot and ankle
VALGUS

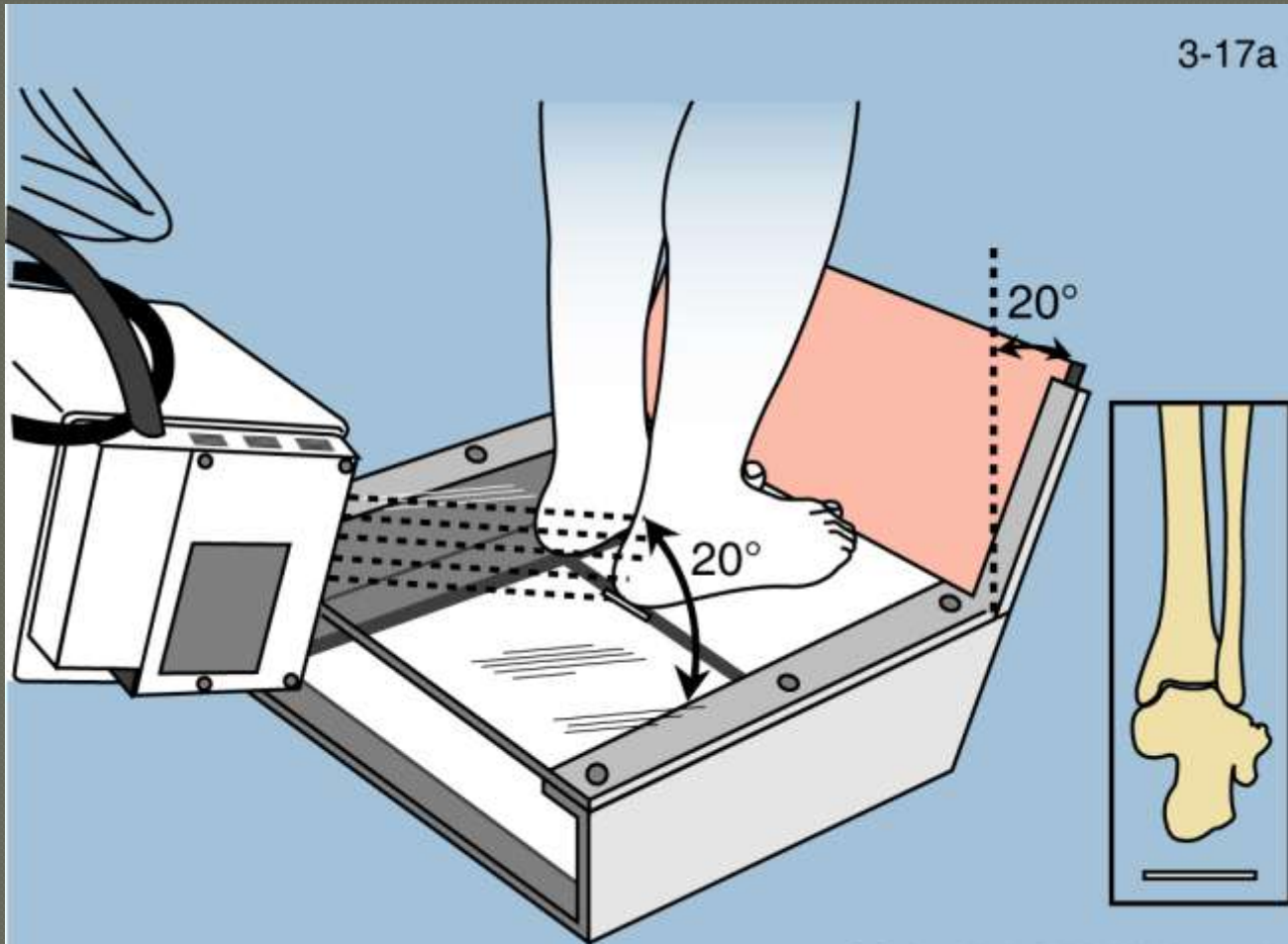


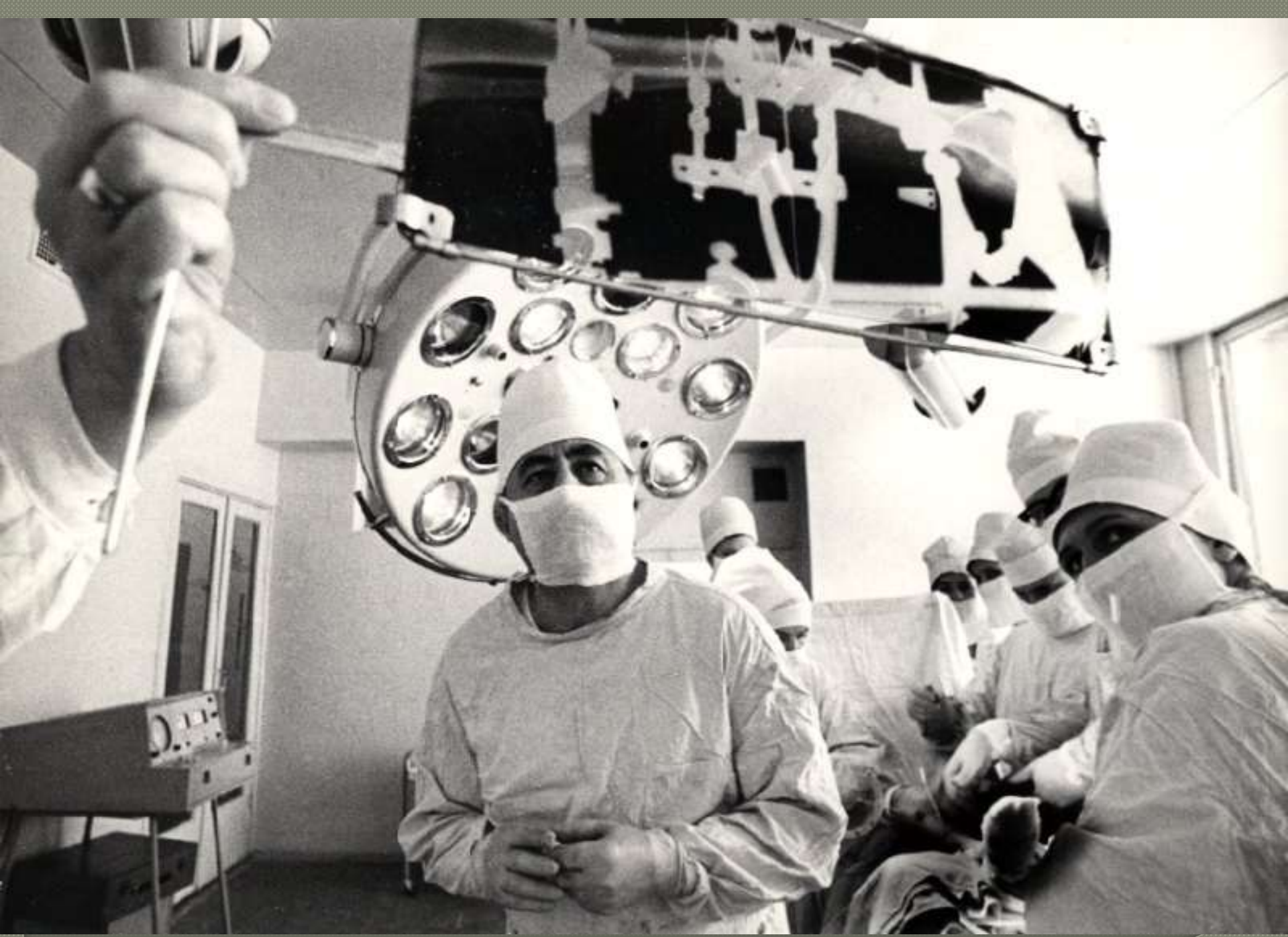
External
Rotation



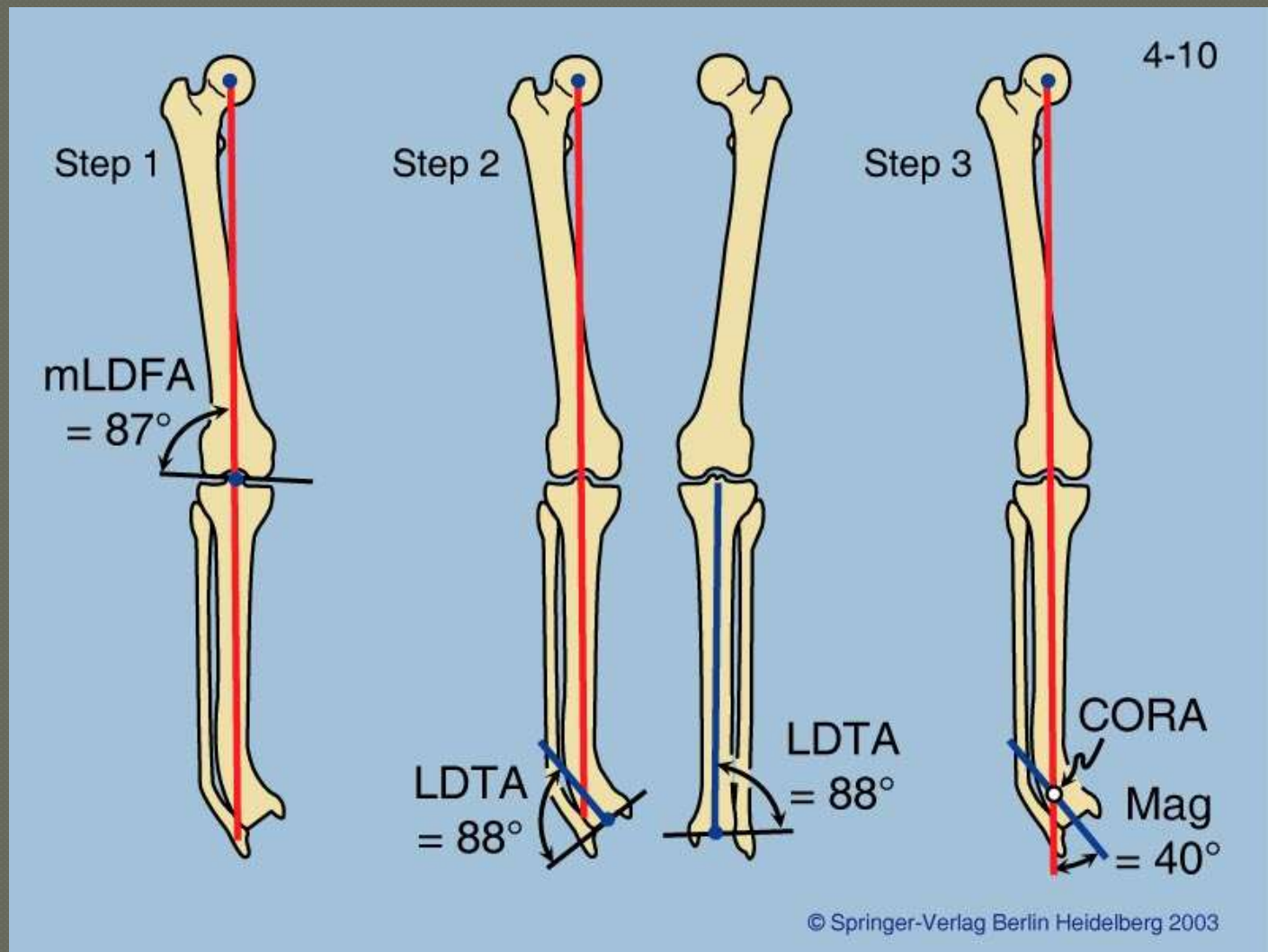
Saltzman view

3-17a





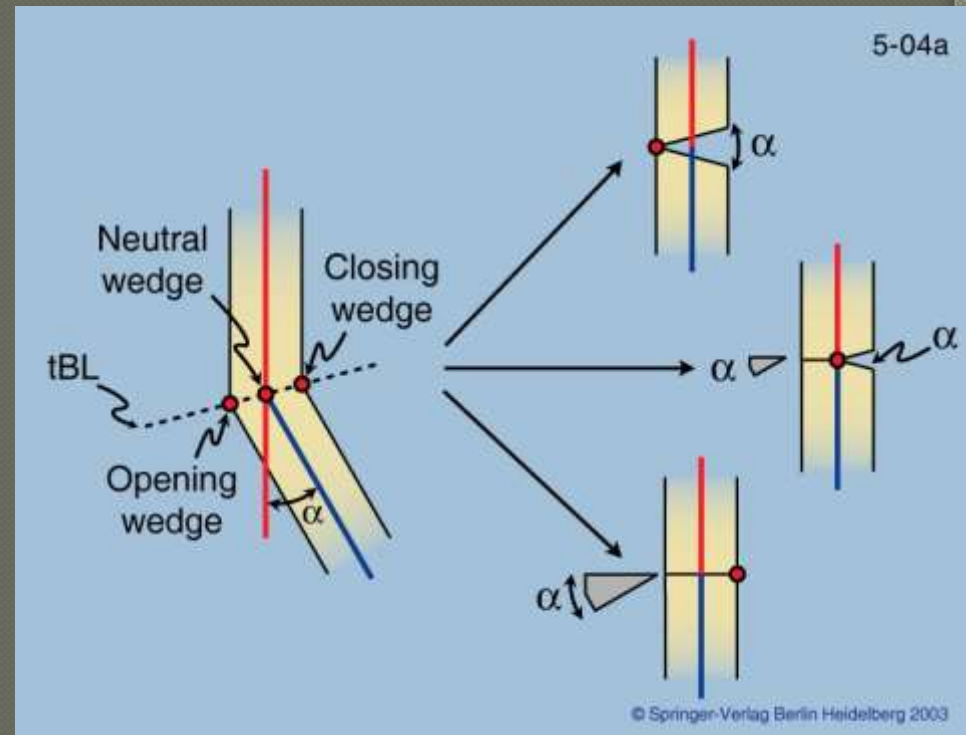
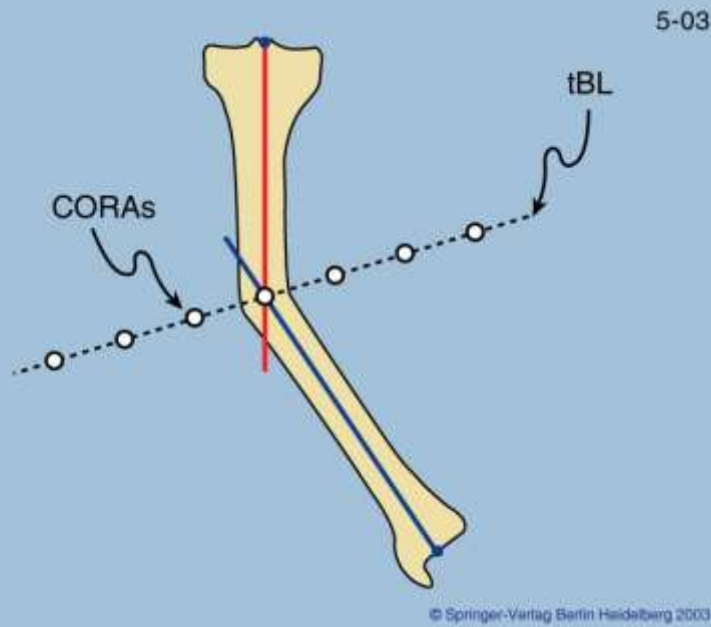
Normal femur, distal tibia varus



Use extension of femur mech axis for proximal tibia mech. axis

Osteotomy principle

Gain length

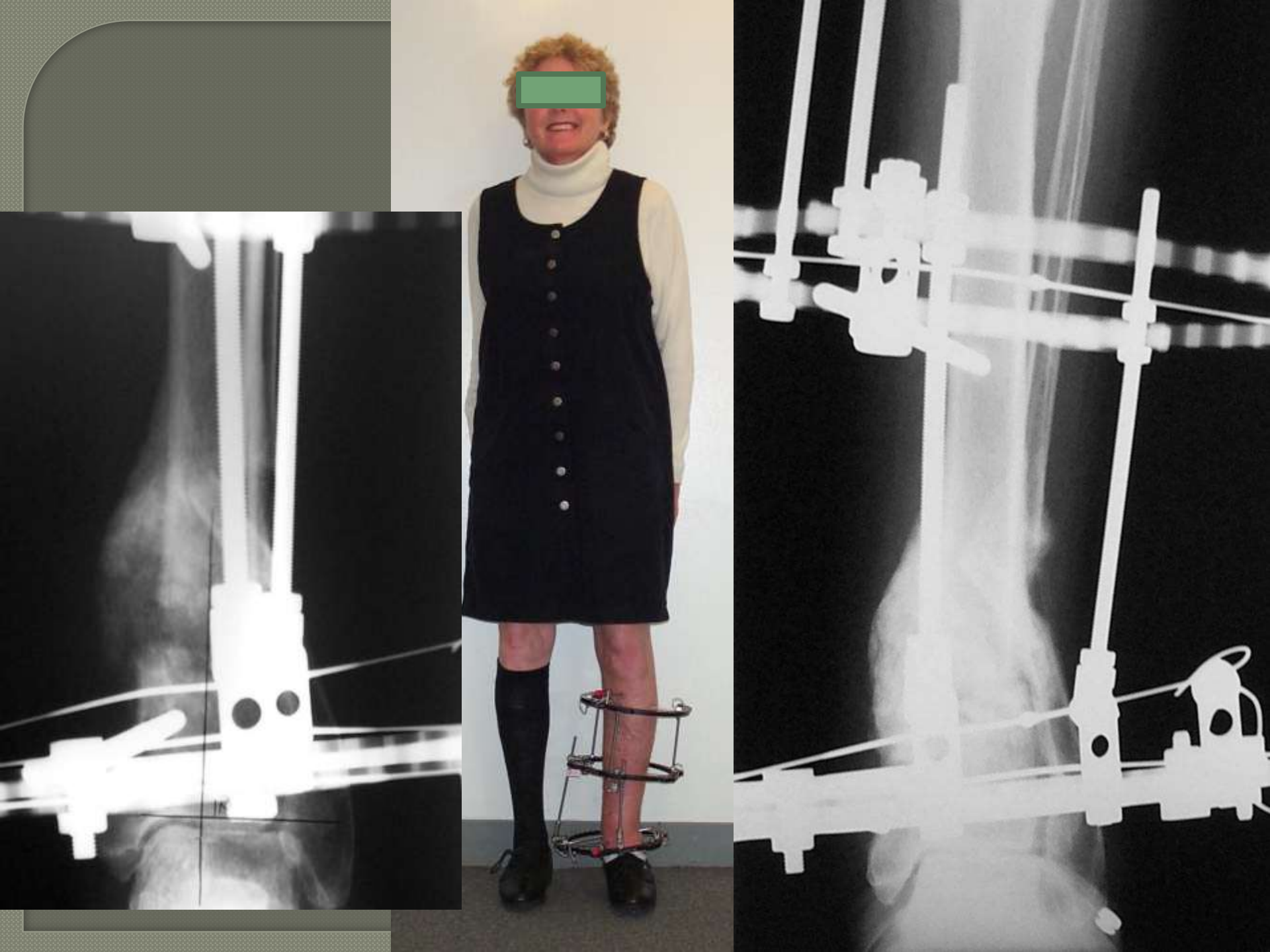


Loose length

BEFORE





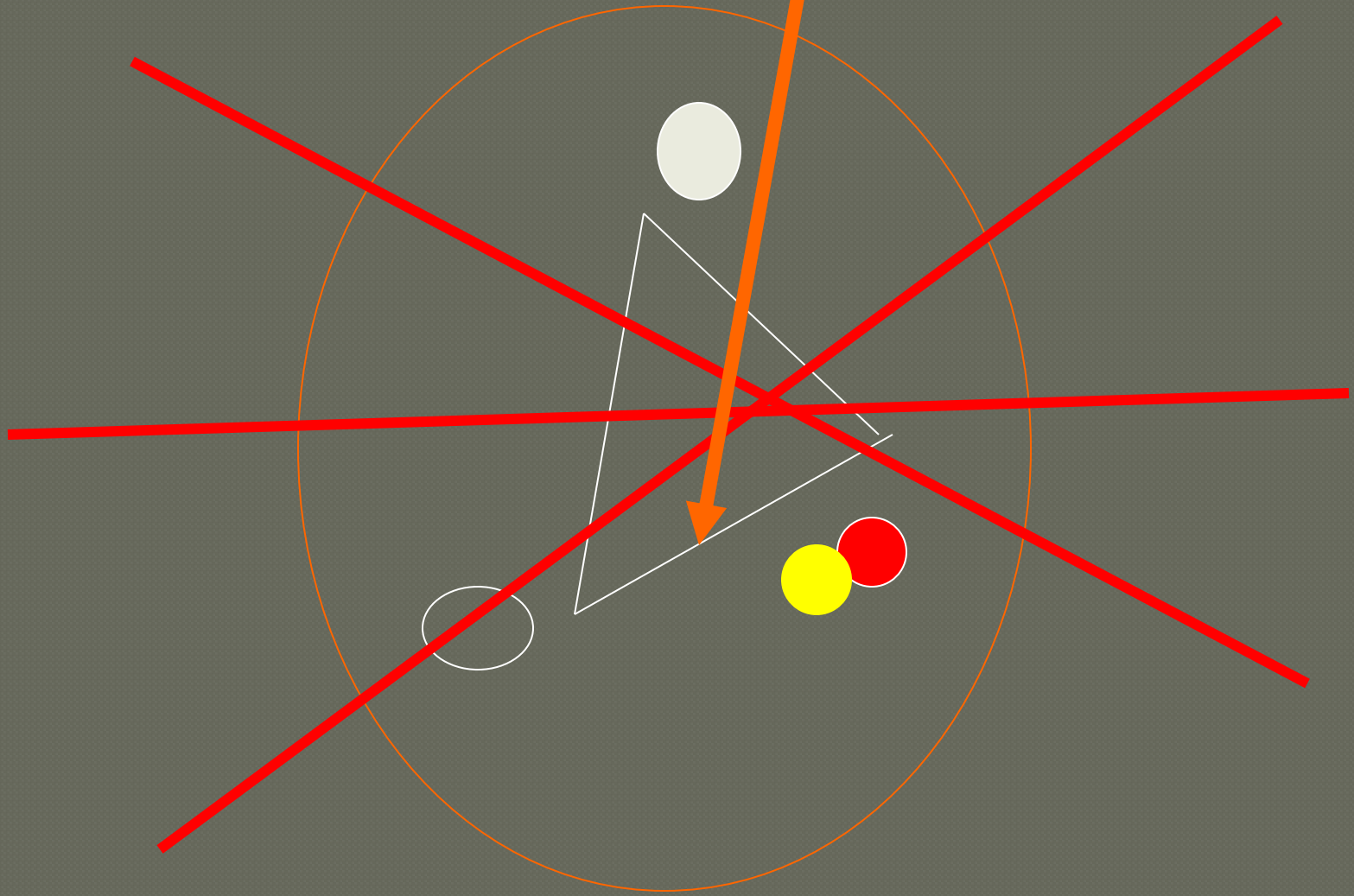




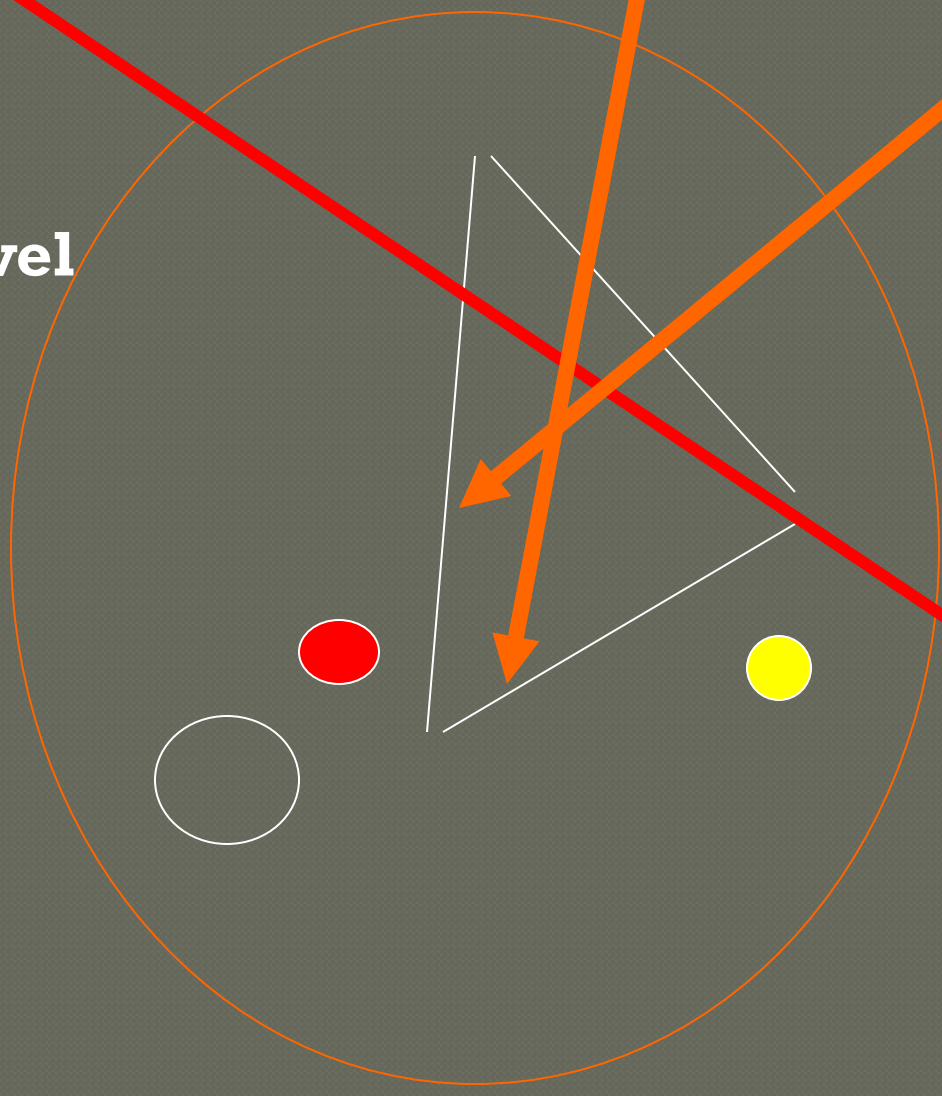
after



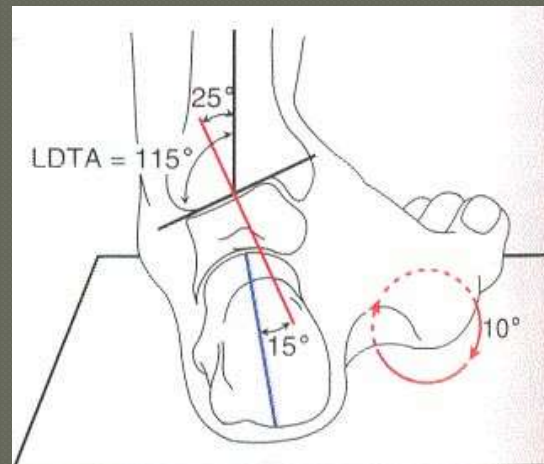
Supramalleolar zone pin and wire placement



Diaphyseal level



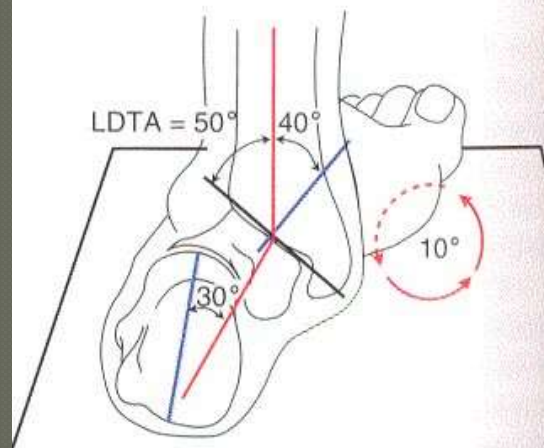
Be aware of foot compensation and determine if it is flexible or fixed



Pronation compensation

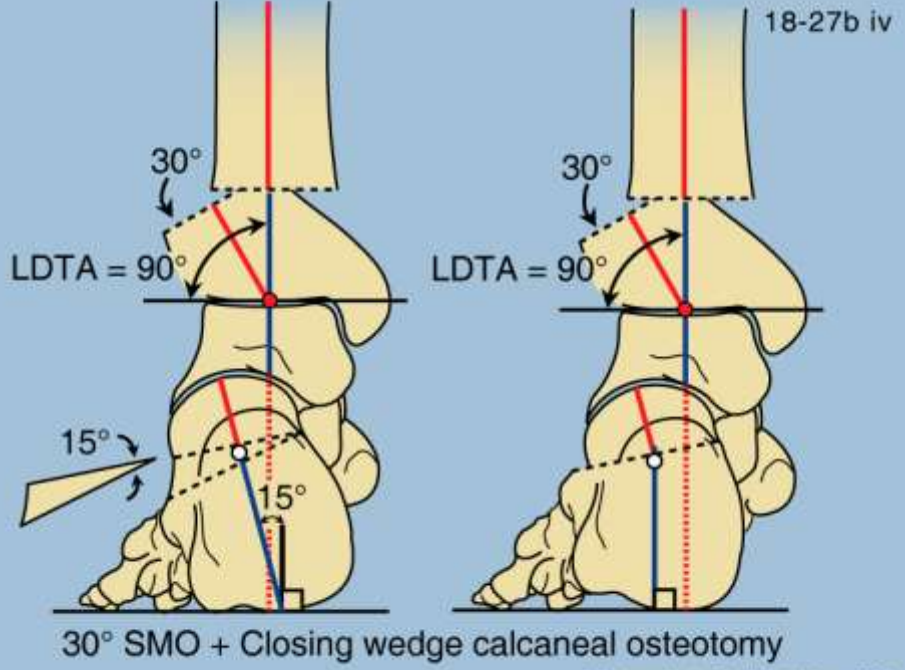
Varus tibia compensated with
Hindfoot eversion and
Forefoot pronation

Greater compensation
Possible for valgus tibia

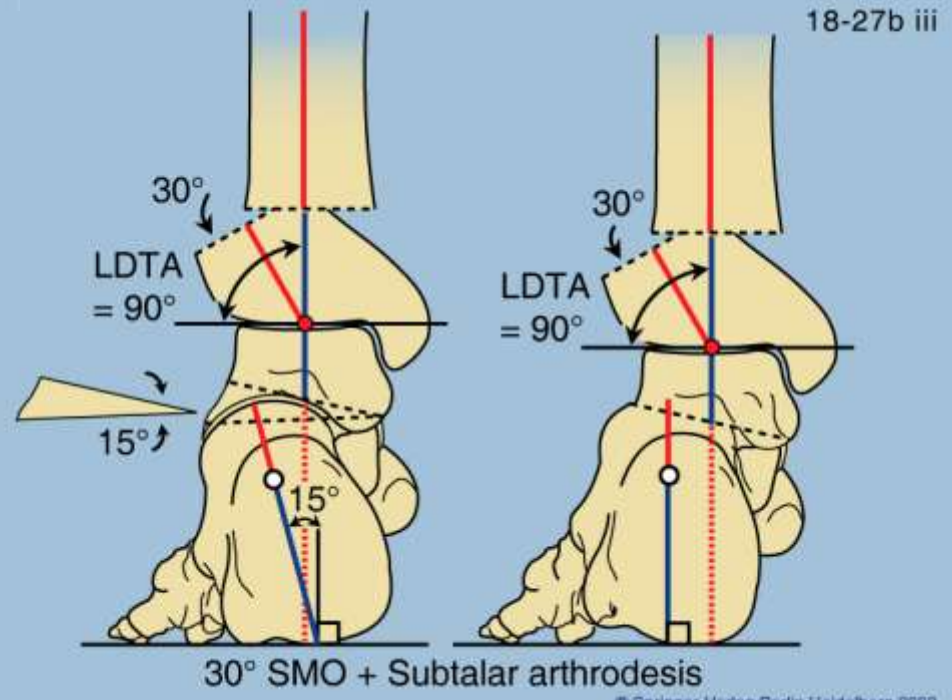
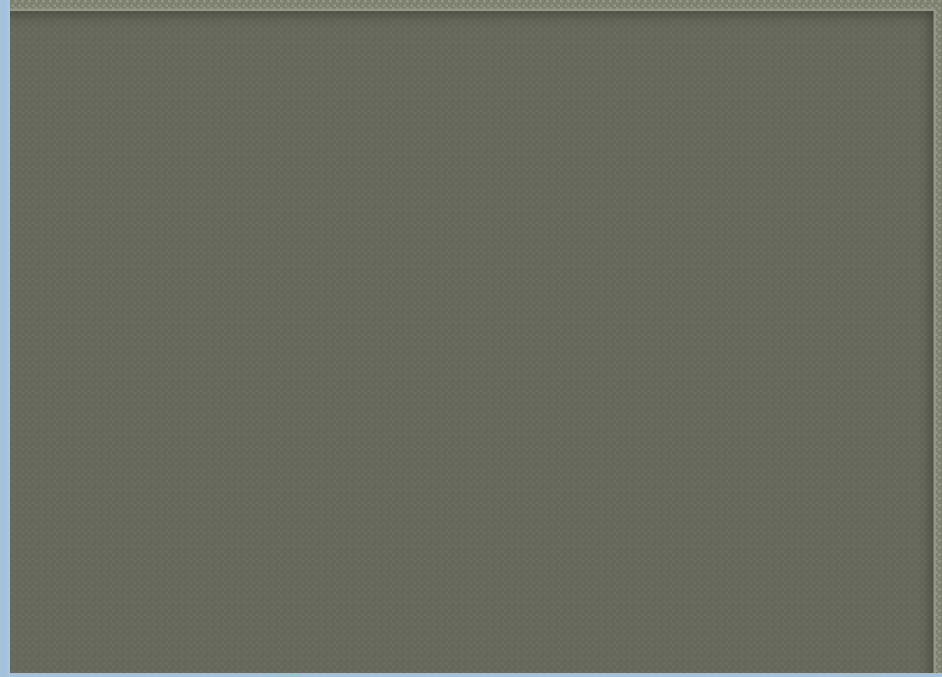


Supination compensation

Valgus tibia compensated with
Hindfoot inversion and
Forefoot supination



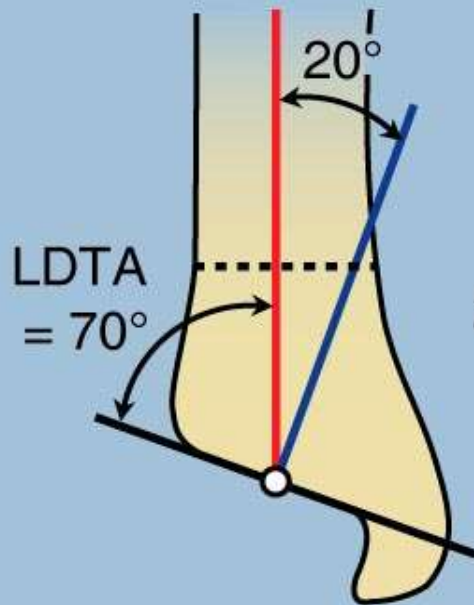
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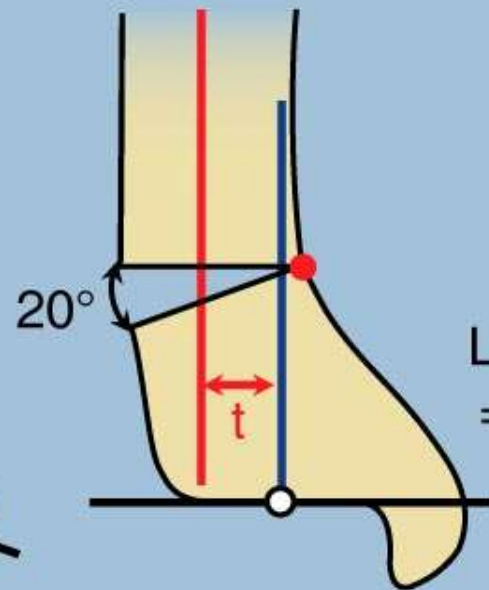
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18-10a
Opening Wedge

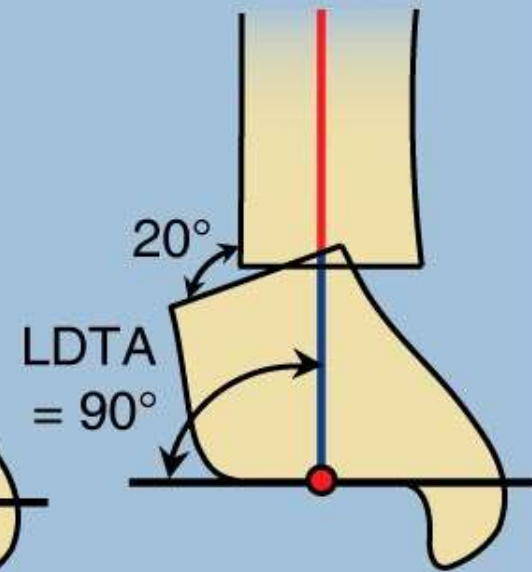
i



ii

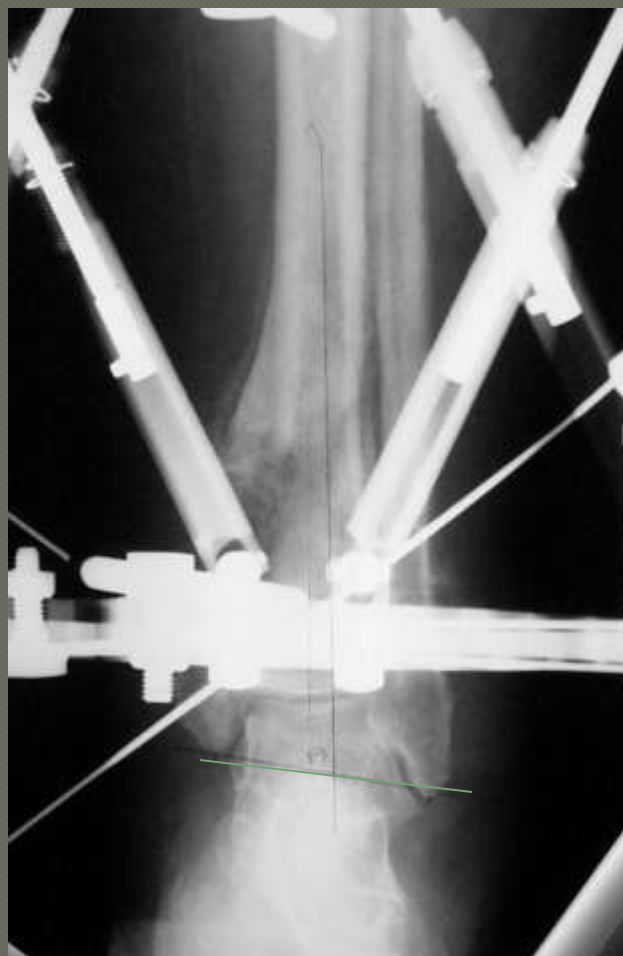


iii



Intra-articular nonunion

BEFORE





after

Thank You



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