

# correction of Foot deformity using external fixator Salamehfix 2

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# External hinge fixation device for foot correction Salamehfix 2 ,PCT Patent of WIPO

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# Indications

## Congenital foot deformity

- Congenital clubfoot
- Congenital tibial hemimelia
- Combined with shortening of the leg

# Acquired foot deformity

- Postraumatic
- Neuromuscular
- Poliomyelitis
- Severe burn with scarring



# 7 yr old boy Congenital clubfoot after repeated surgeries



Special shoe  
attachment added  
for walking

Plantar foot  
alignment was  
achieved

Gradual correction  
in deferent directions





# Metatarsal alignment





Severe clubfoot after compartment syndrome, girl 5 yrs. old

Correction in multiplanar directions , good alignment achieved.





Before treatment and after





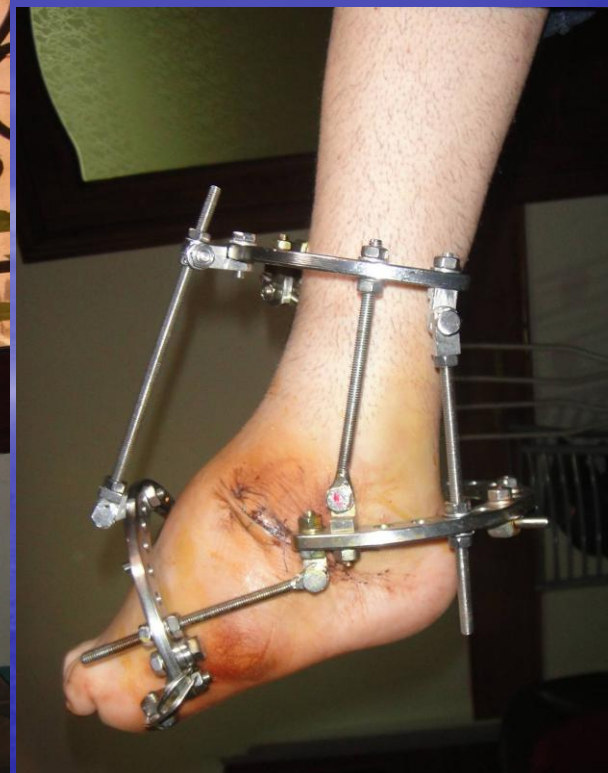


Young man 23 yrs.  
Old with congenital  
club foot

Sever neglected  
clubfoot







Application of Ex. Fix.  
Salamehfix2 and gradual  
correction in different  
directions achieving  
plantigrade foot





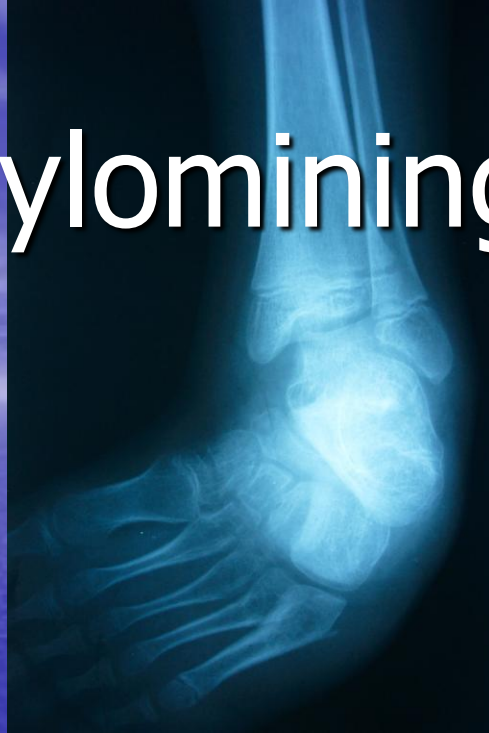


Before and after  
deformity correction  
plantigrade functional  
foot





# Clubfoot after myelomeningocele



During  
treatment  
and after





# Advantages for external fixator

- Multiplanar correction
- Less scarring
- Treatment even in severe neglected cases
- Early rehabilitation
- Limited costs



# Disadvantage for external fixator

- Duration of treatment
- Patients compliance
- Patients comfort



# Time schedule for treatment

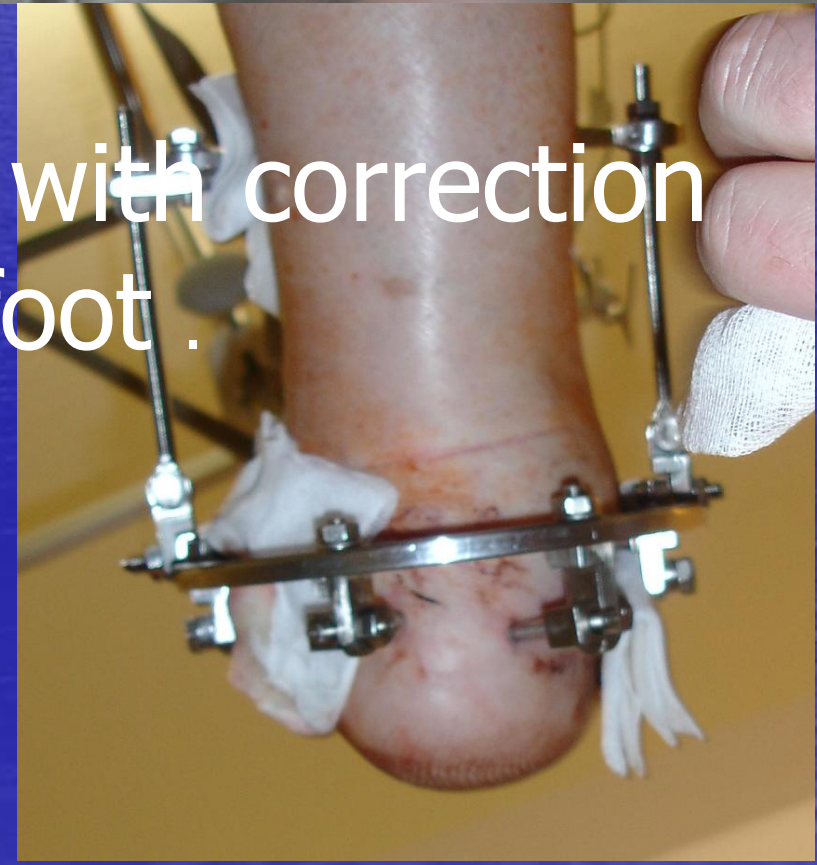
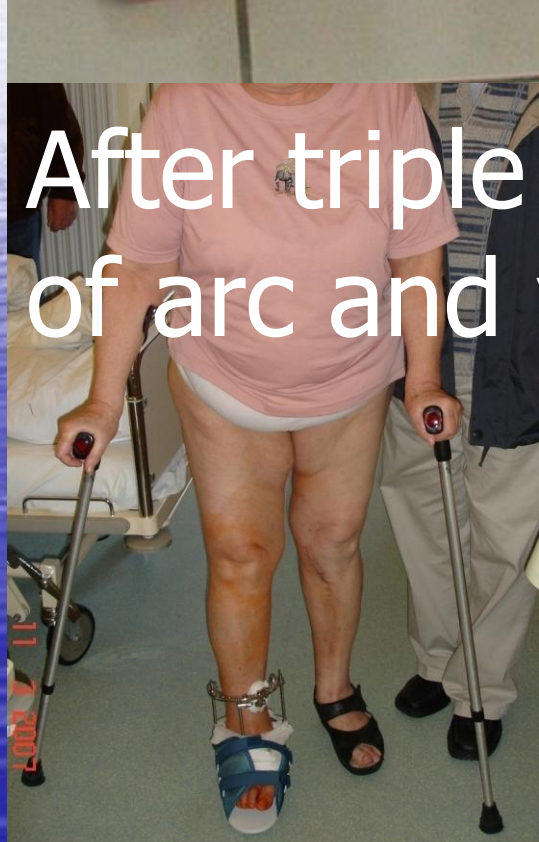
- Average time for correction 4 to 6 weeks depending on the indication and severeness.
- Average time of fixation 2 to 3 months
- Special orthosis needed for 6 months
- Application of fixator combined with open surgery
- Removal as outpatient case



Severe Plano Valgus foot , women 60 yrs old



After triple arthrodesis with correction of arc and valgus hindfoot .





# Results I

- From 1995 to 2024, 246 cases with congenital and acquired foot deformities
- Age between 5 and 40 years
- Different fixation devices with hinges, some cases combined with lengthening



# Results

- All cases with plantigrade foot
- Restoration of mobility
- In some cases first time patient was able to walk due to the correction
- No aid except orthopaedic shoes
- No nerve or vascular damage



# Complications

- Superficial pin infection
- Loosening or breakage of pins
- Some stiffness after removal of fixator



# Conclusion I

- The use of external fixator made the correction of even severe deformities of the foot possible and successful.
- Good correction
- Acceptable functional outcome.
- Good appearance.



# Conclusion II

- The use of the external fixator is cost effective
- Correction is possible even in neglected cases
- Combined with open surgery and coorection of other deformities at the same time
- Long duration of treatment

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Thank you