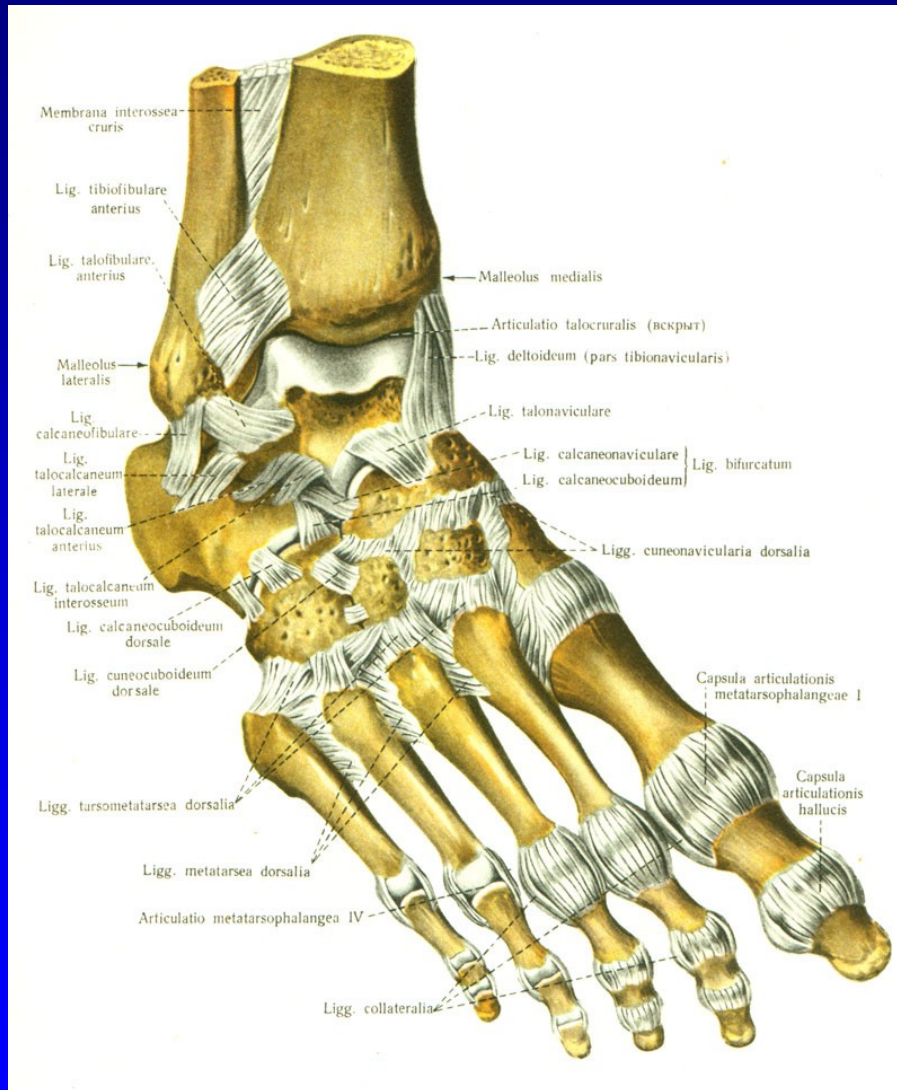


# Diseases of the foot

Rozkydal. Z.

# Anatomy



Art. talocruralis

Art. talocalcanearis

Art. Choparti

Art. Lisfranci

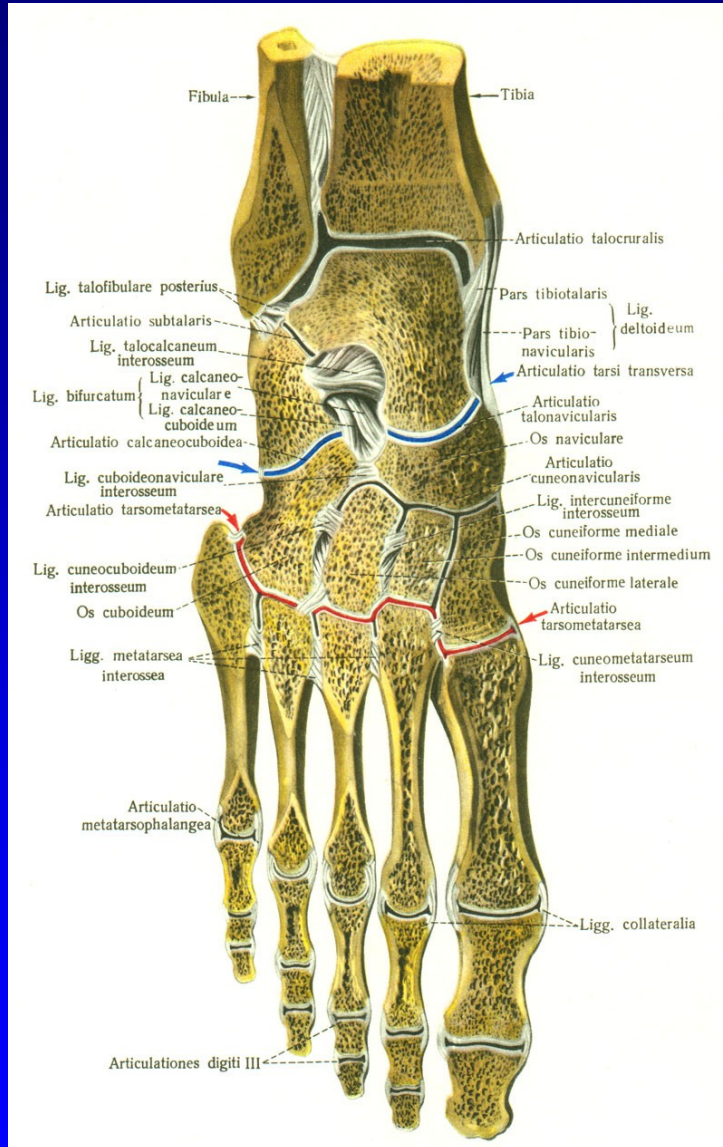
Art. metatarsophalangealis

Art. IP proximalis

Art. IP distalis

Obr. 1

# Anatomy



Art. talocruralis

Art. talocalcanearis

Art. Choparti

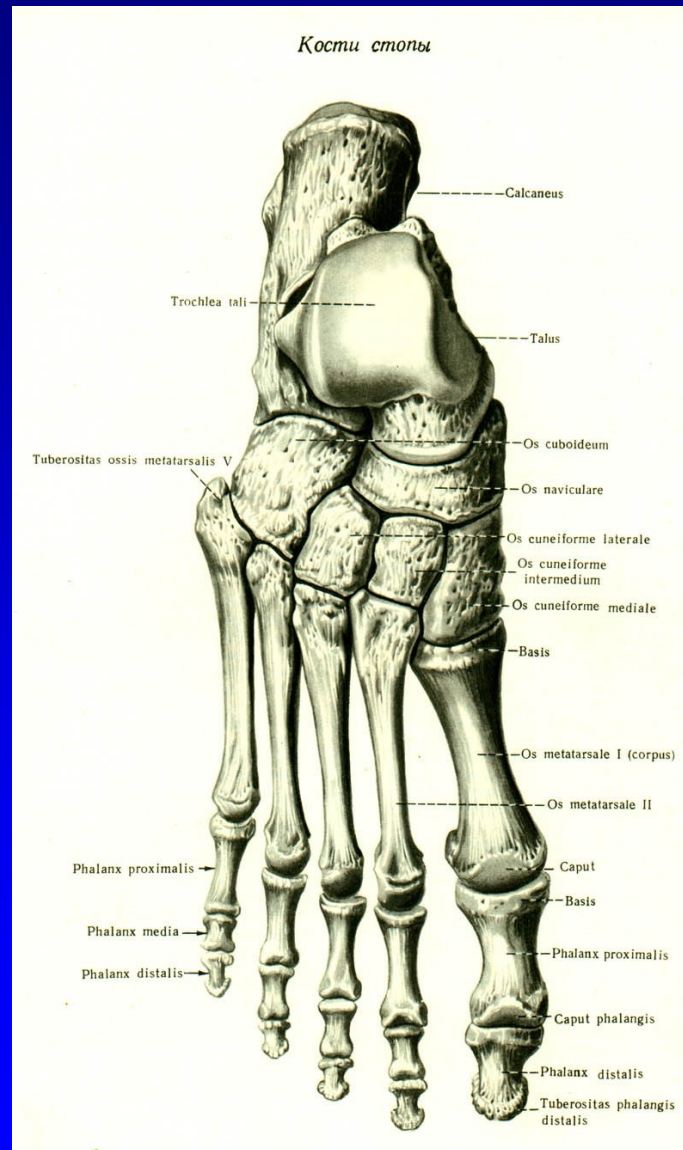
Art. Lisfranci

Art. metatarsophalangealis

Art. IP proximalis

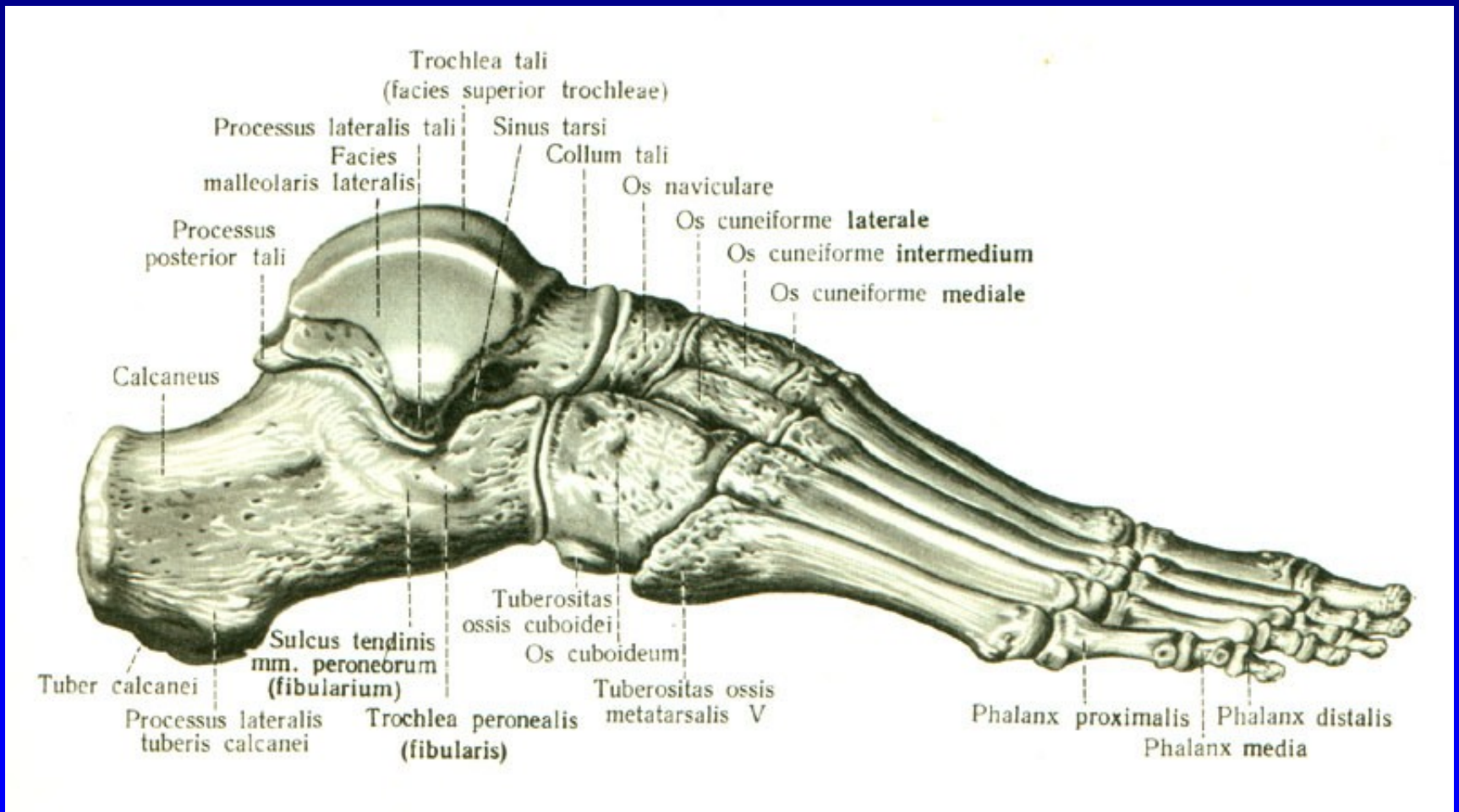
Art. IP distalis

# Anatomy

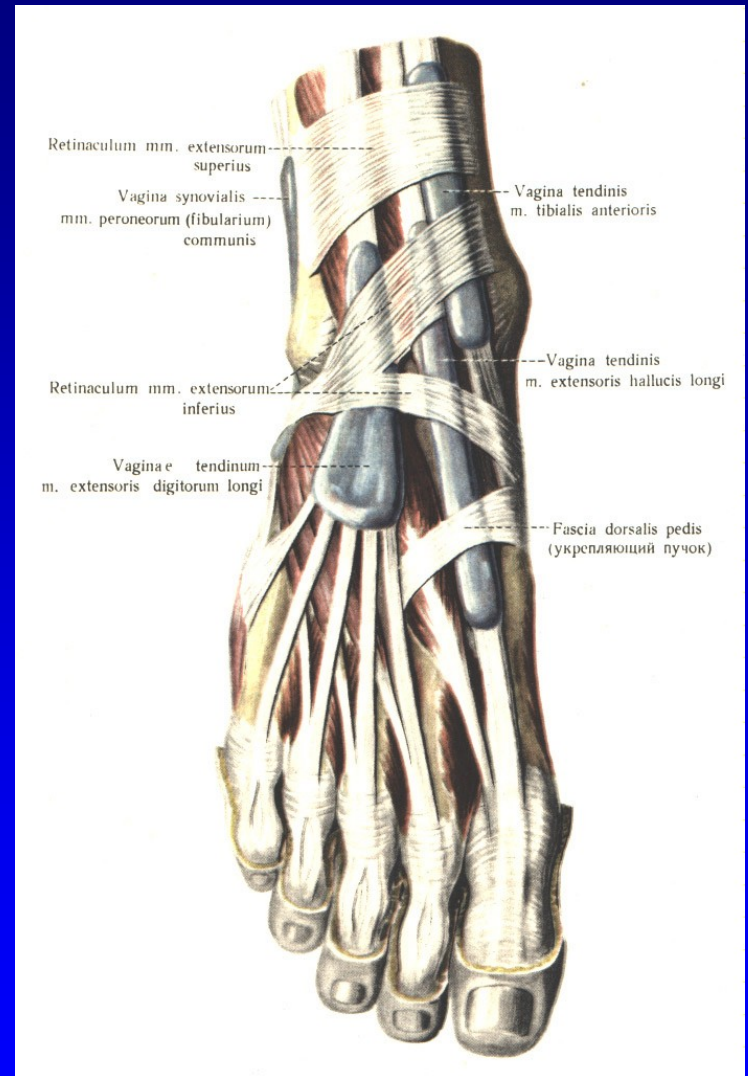


Obr. 3

# Anatomy



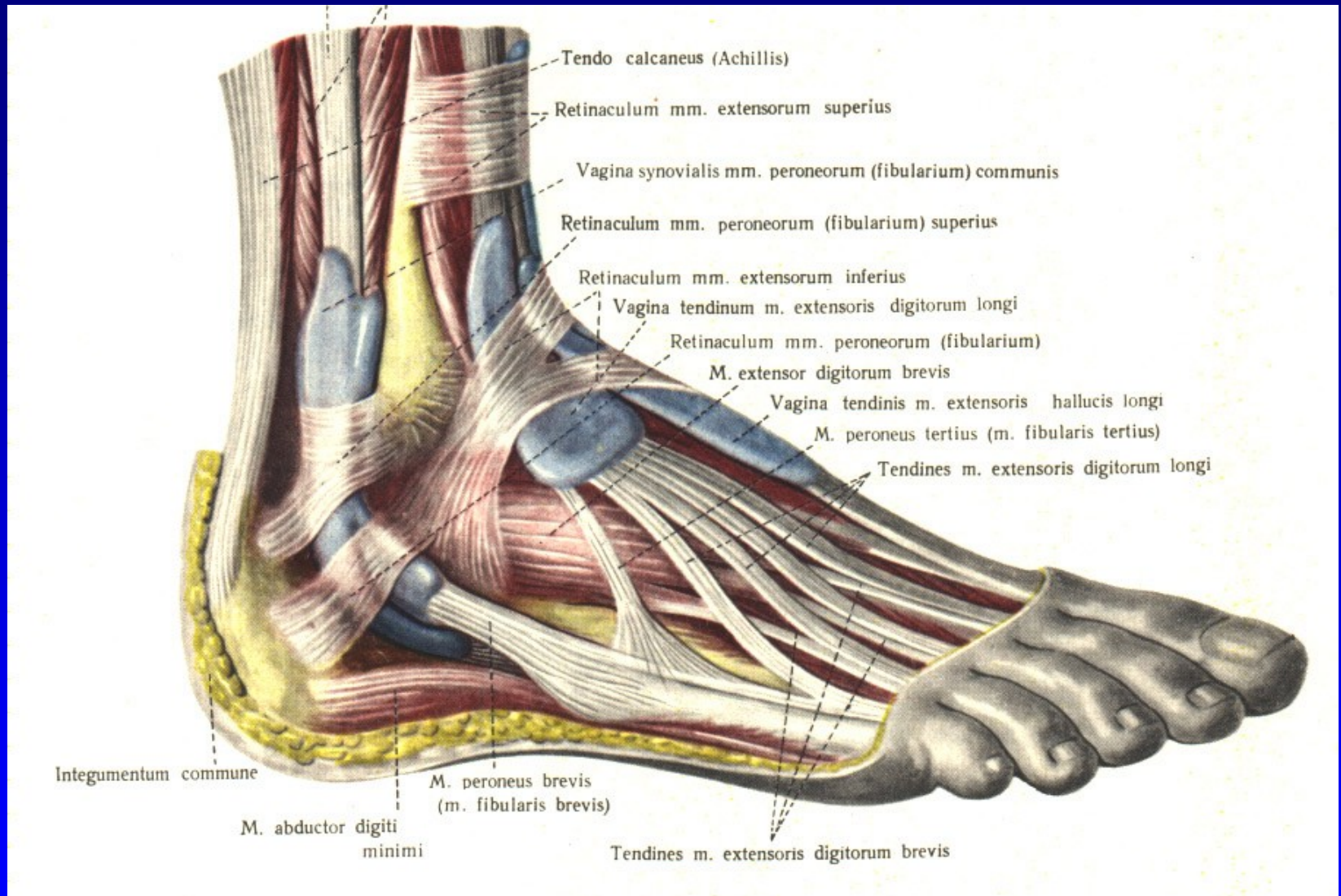
# Anatomy



Obr. 5

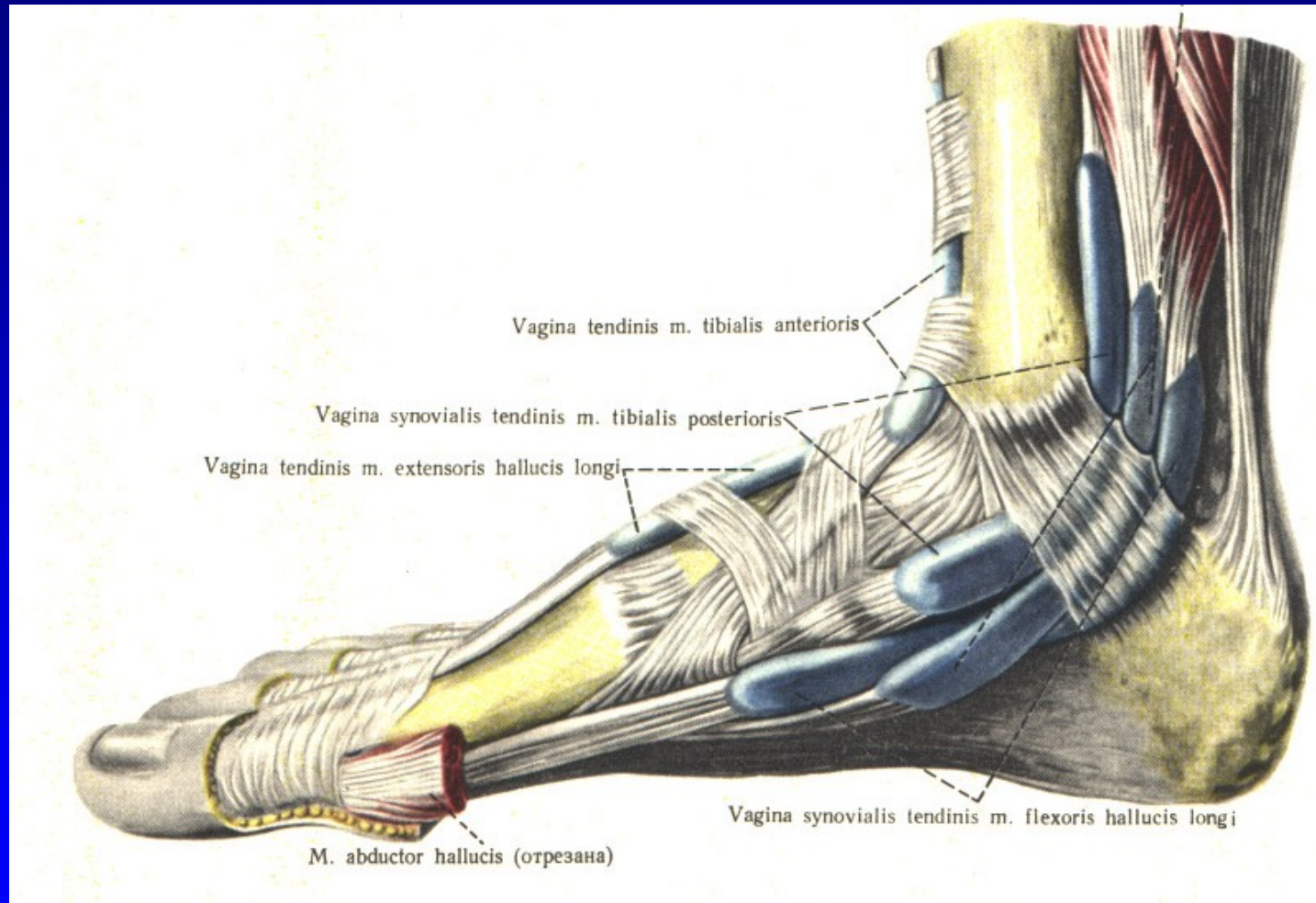
Vaginae mm. extensorum pedis

# Anatomy



Obr. 6 Vaginae mm. peroneorum

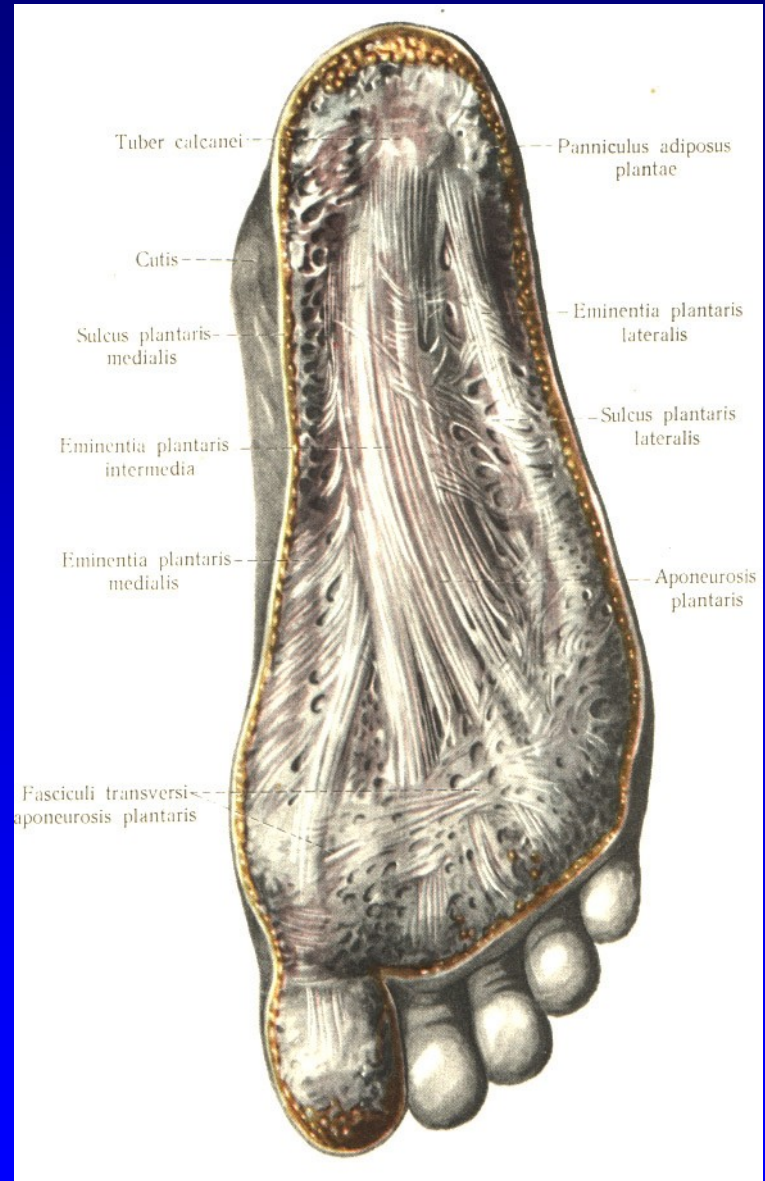
# Anatomy



Obr. 7 Vaginae mm. flexorum pedis

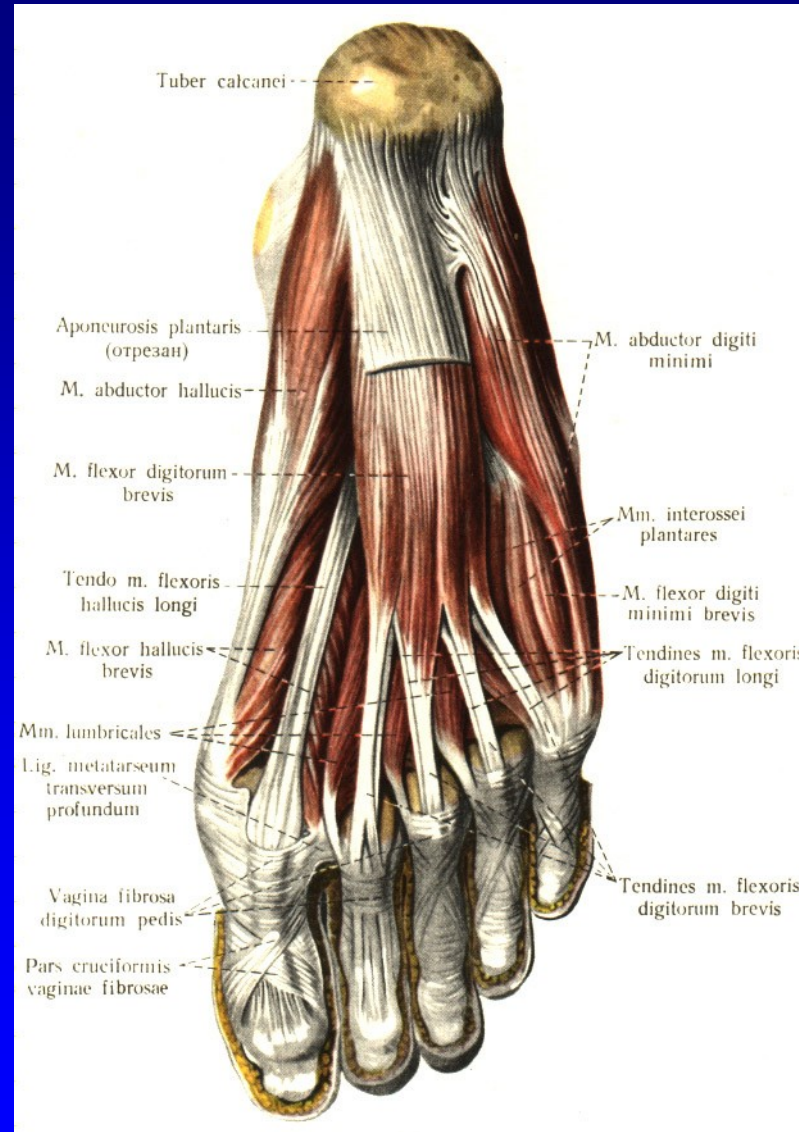


# Anatomy



Obr. 8 Aponeurosis plantaris

# Anatomy



Obr. 9 Flexors

# Anatomy



Obr. 10 Flexors

# The ankle joint

Synovialitis

Osteoarthrosis

Trauma

Posttraumatic conditions

Static deformities

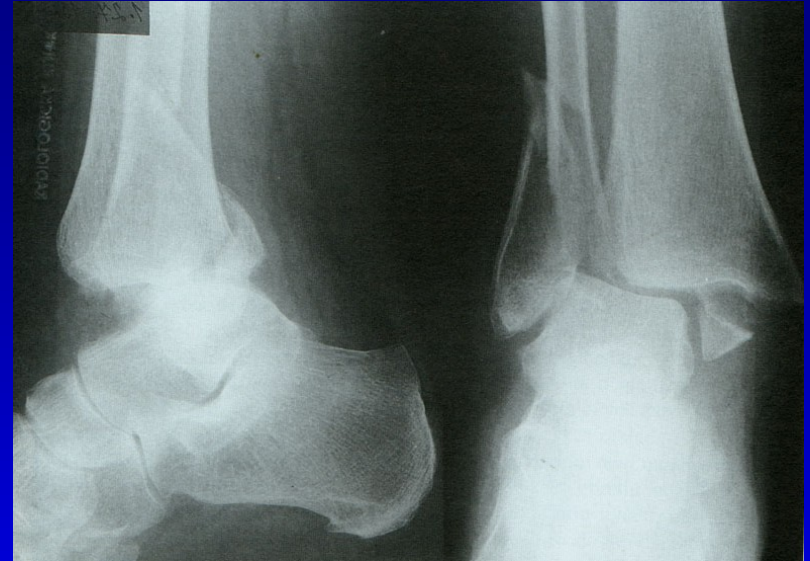
Congenital deformities

Rheumatoid arthritis

Osteochondrosis dissecans - talus

Stenosing tenosynovitis

Tarsal tunnel syndrom

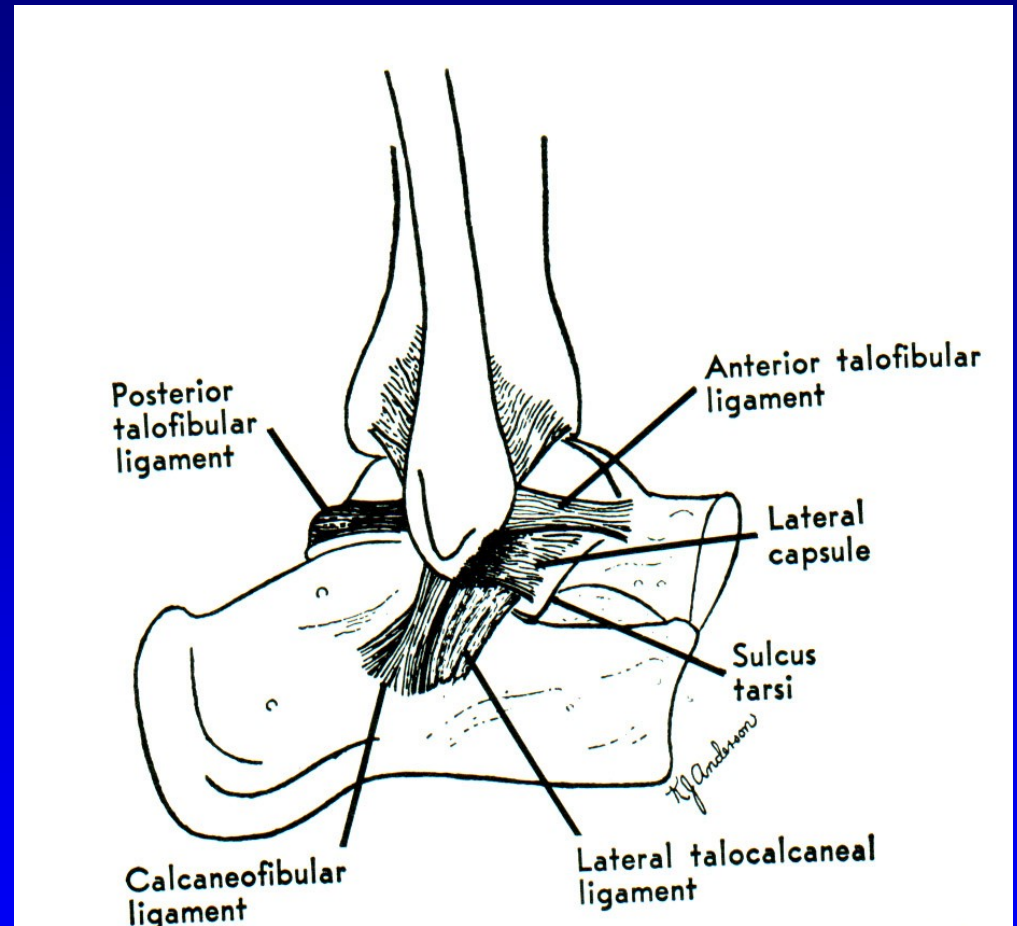




Synovialitis

# Lateral ligaments

Sprain  
Partial rupture  
Complete rupture



Obr. 12 Lig. collaterale lat.

# X- ray



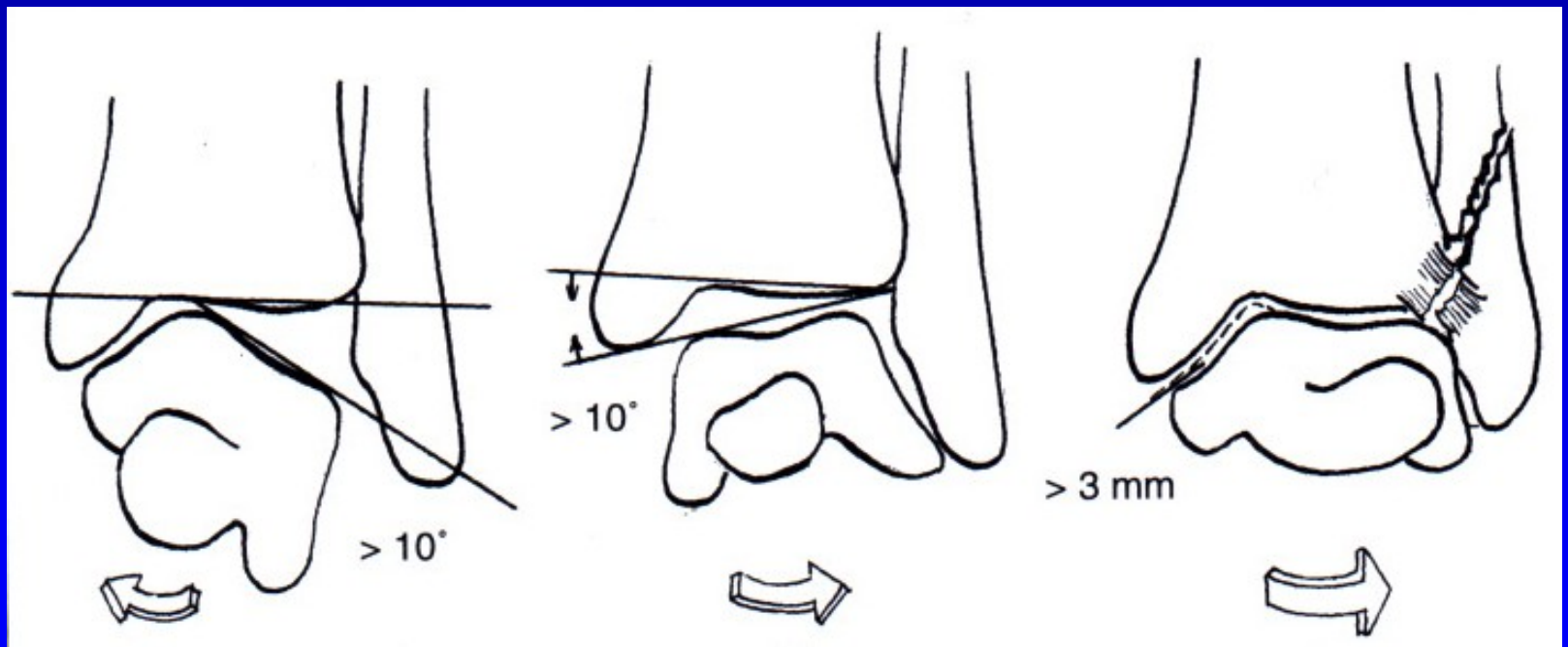
Obr. 13

# Management

Sprain: bandage, othesis

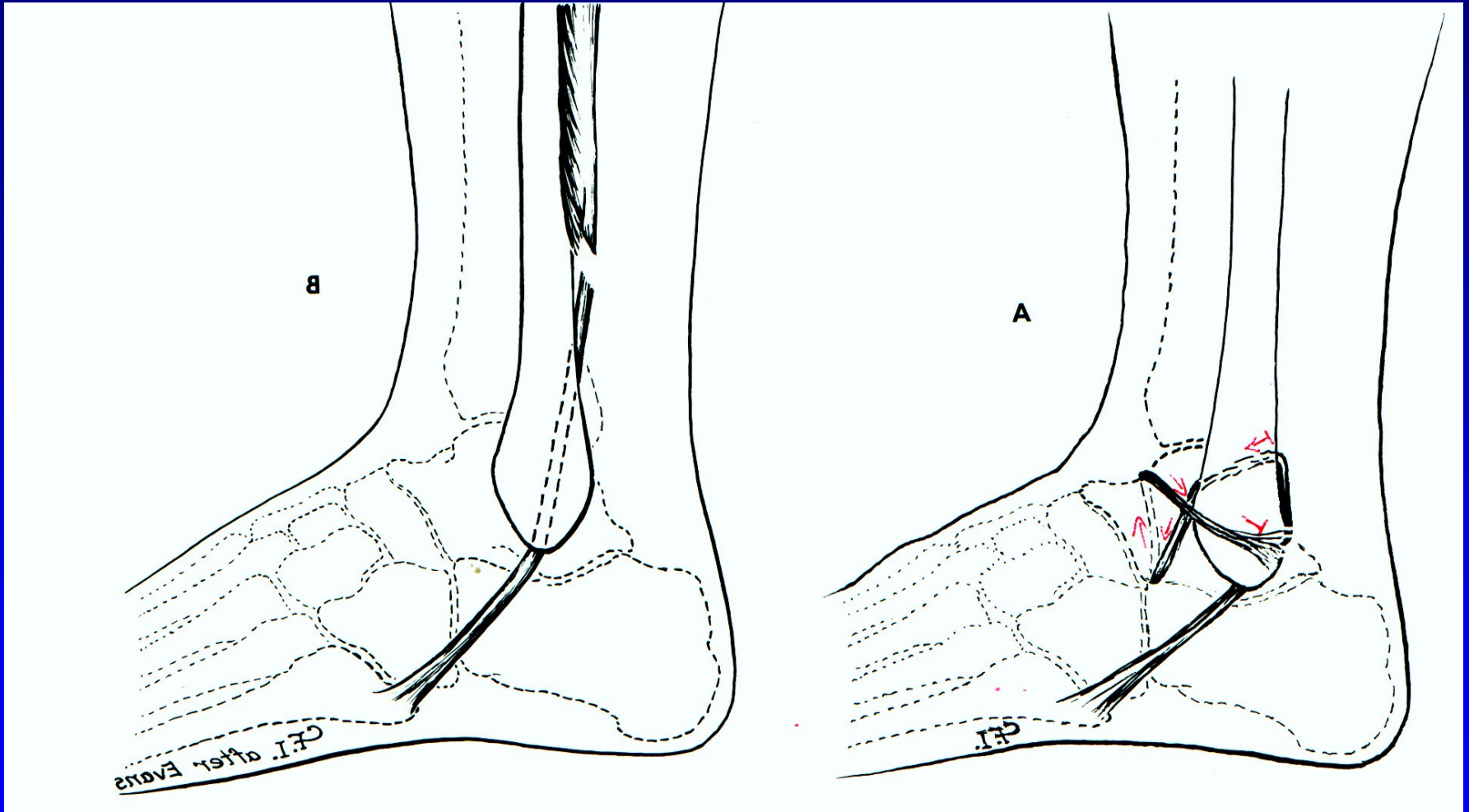
Partial rpt.: orthosis, plaster

Complete rpt.: suture and plaster





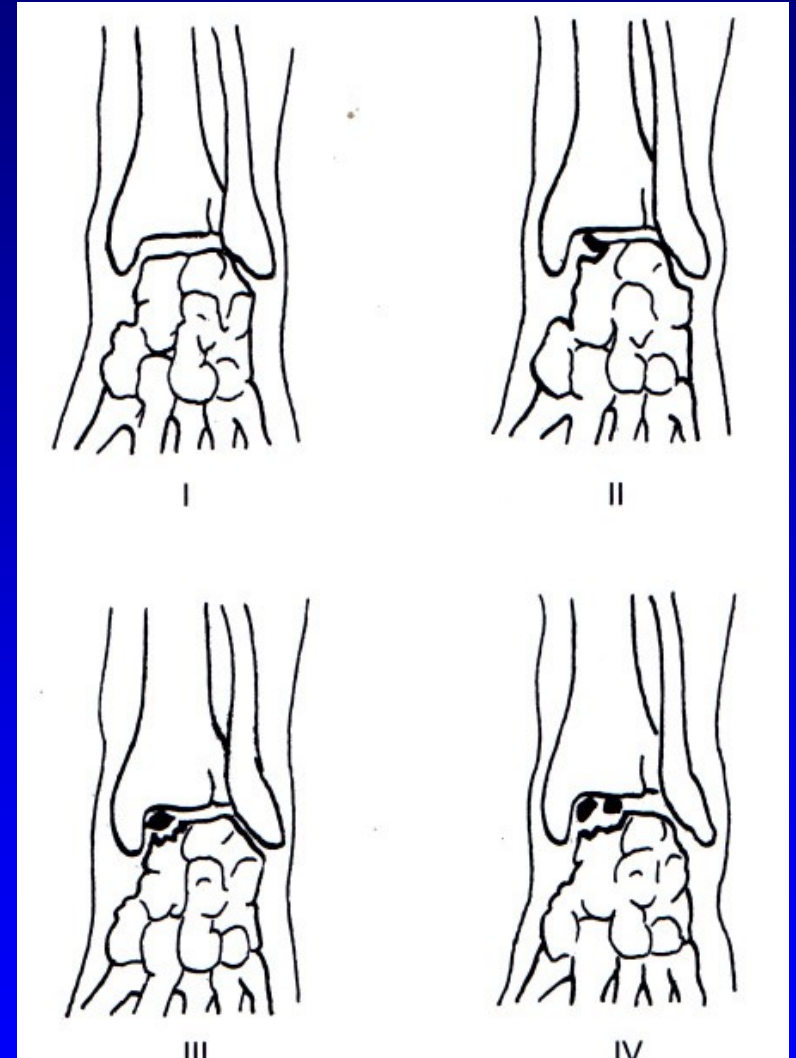
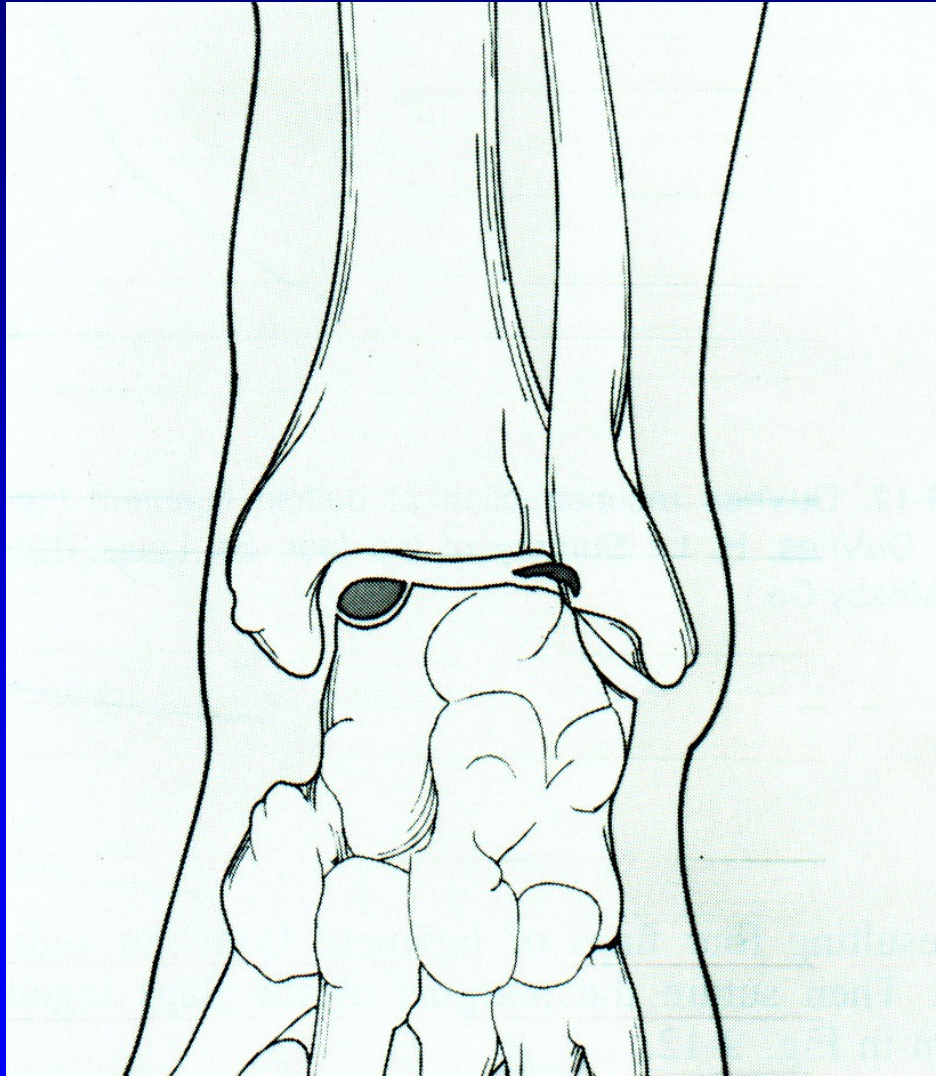
# Chronic instability



Obr. 15 Evans plasty

Watson Jones plasty

# Osteochondrosis dissecans tali



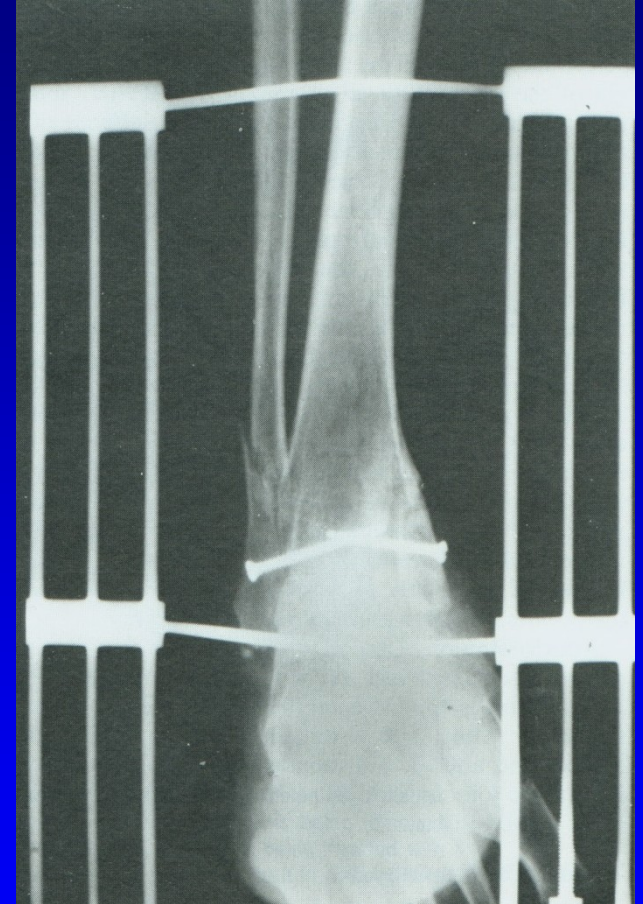
Obr. 16

# Arthritis of the ankle joint



Obr. 18

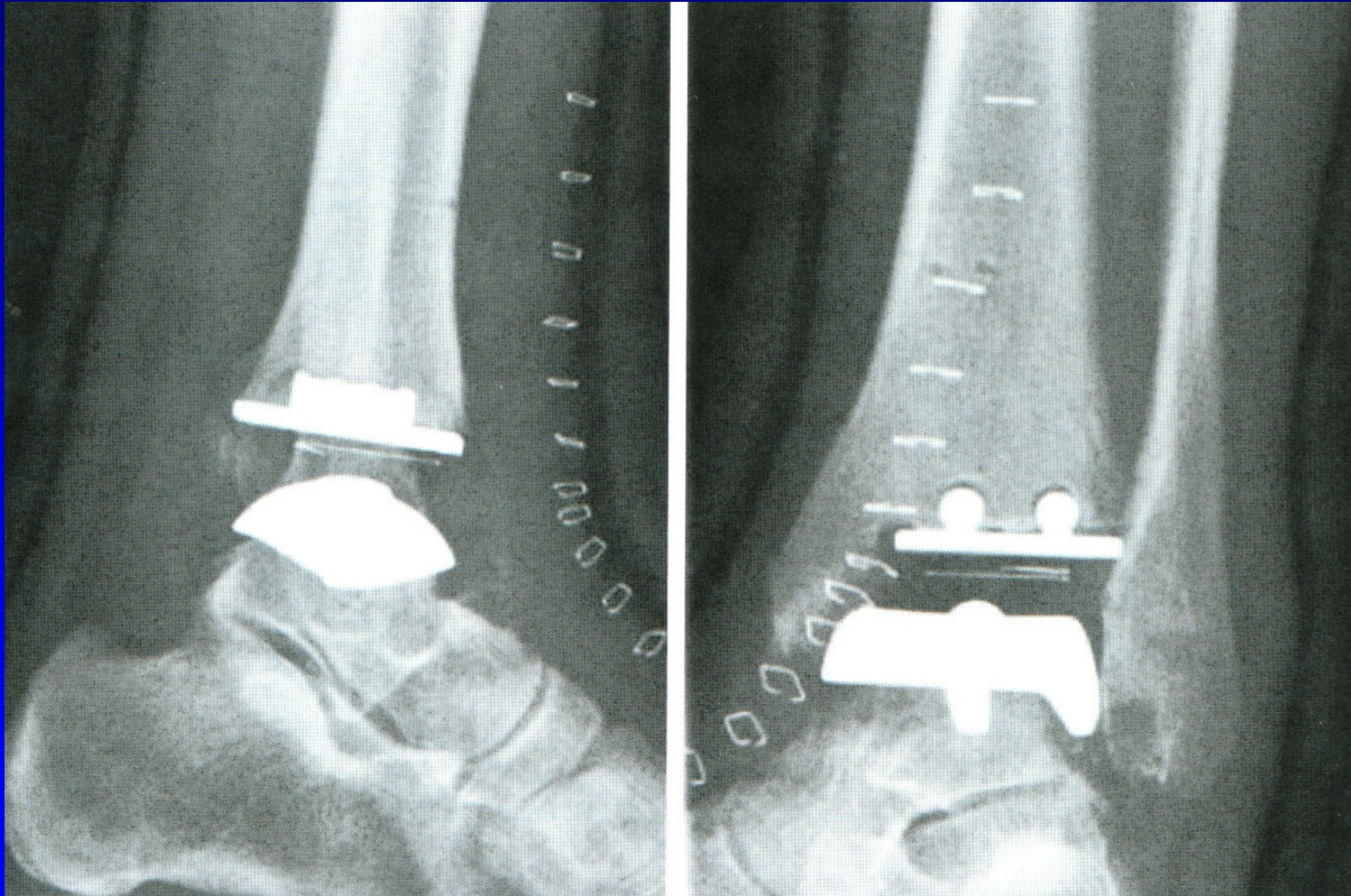
# Arthrodesis



Adams- Horwitz arthrodesis

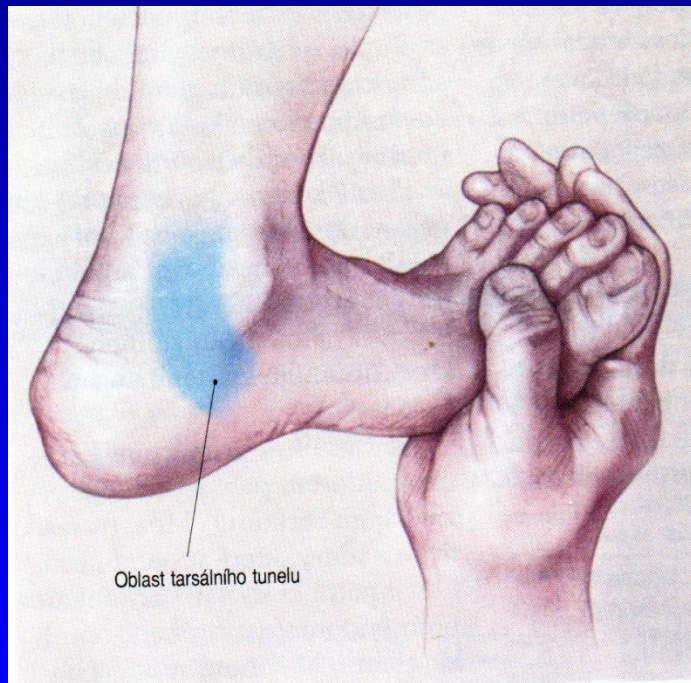
Charnley arthrodesis

# Total ankle replacement

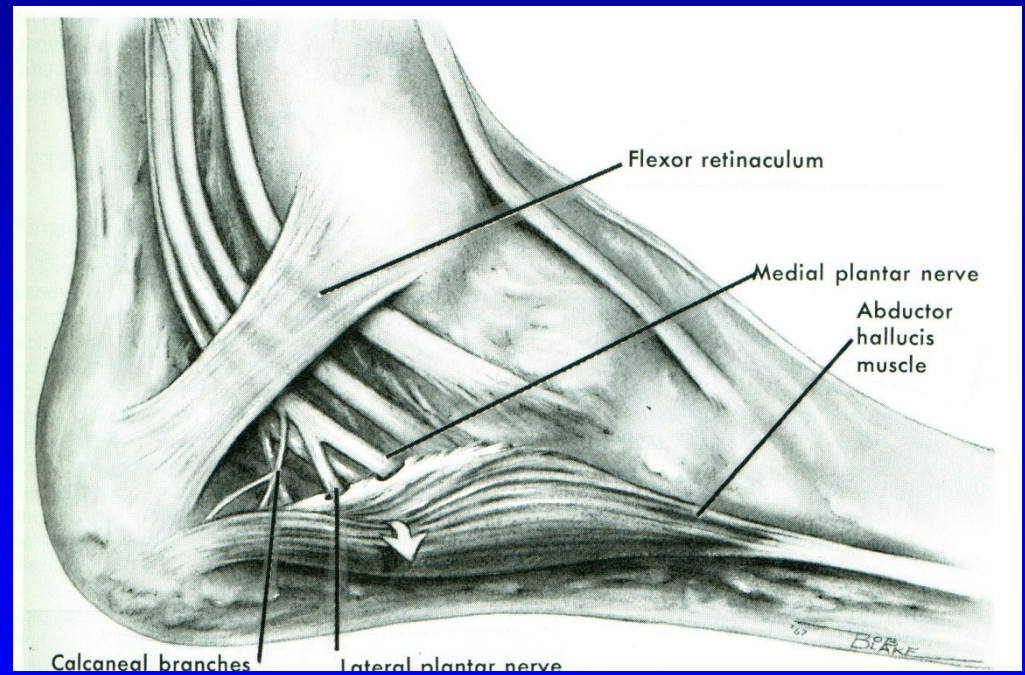


Obr. 21

# Tarsal tunnel syndrom



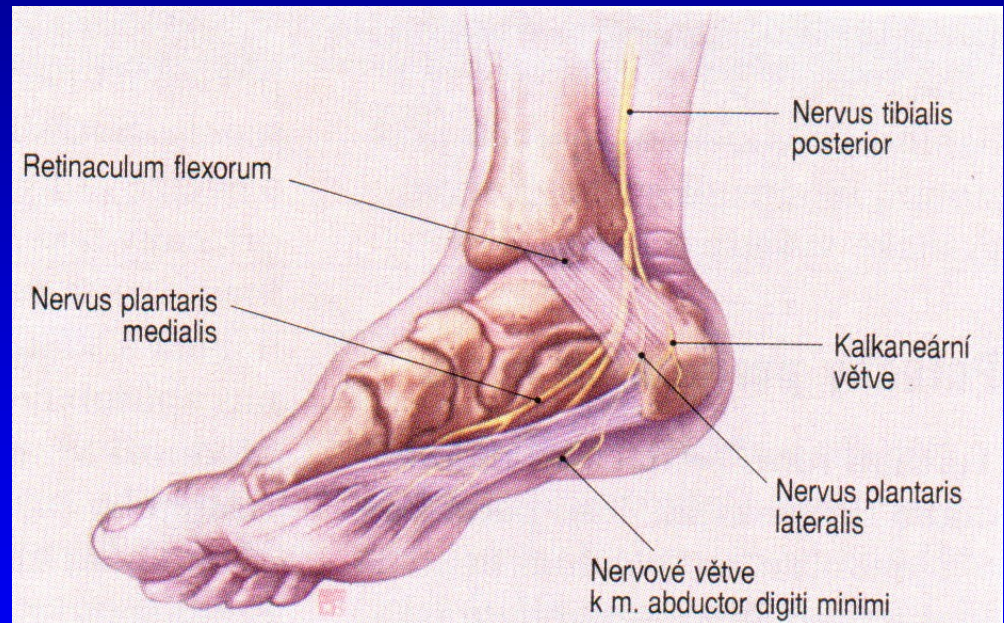
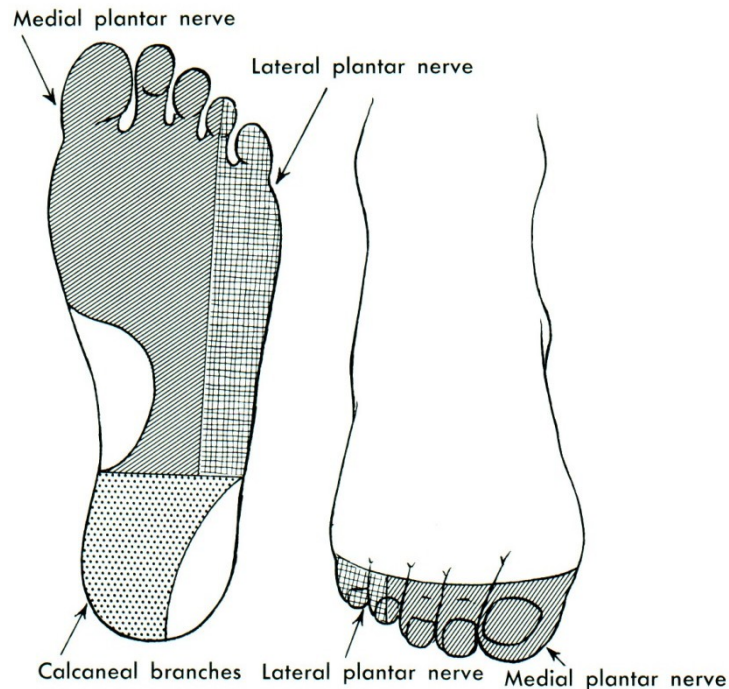
Obr. 22



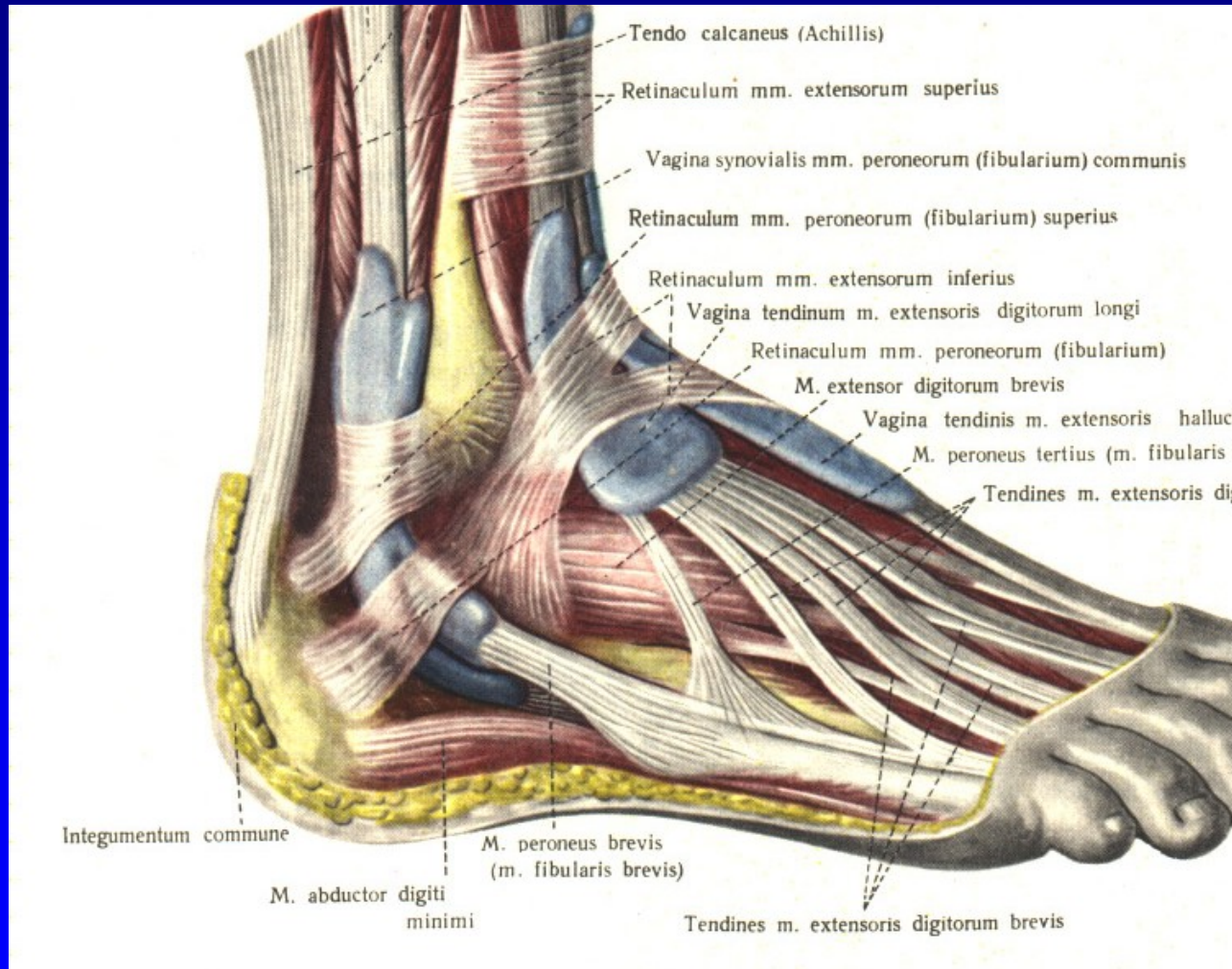
Obr. 23

# Tarsal tunnel syndrom

## Innervation of plantar side



# Peroneal tenosynovitis





# Pes planus- flat foot

Congenital flat foot

Rigid: Vertical talus  
Tarsal coalition

Flexible: pes calcaneovalgus



Vertical talus



# Flat foot

## Acquired flat foot

Laxicity

Marfan sy, Ehlers- Danlos sy,  
Down sy

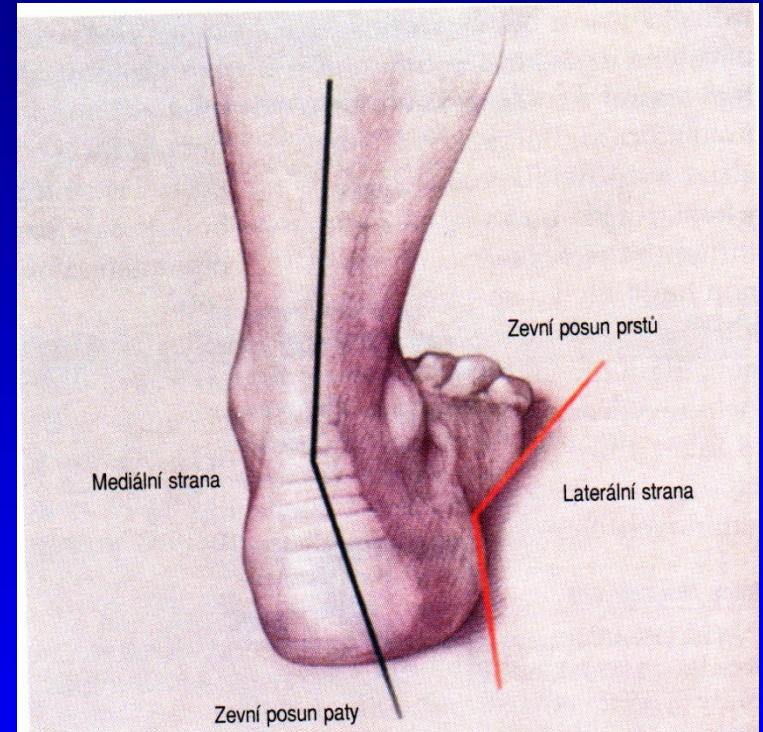
Cerebral palsy, myopathies

Rheumatoid arthritis



# Flat foot

1. Diminished arch
2. No arch
3. Arch convex plantarwards



Valgosity of the heel

# Flat foot



3. degree flat foot

# In small children - pes planovalgus

3-6 years

Weak muscles of the calf

Valgosity of the heel

Talus is medially and plantarwards

Subluxation of navicular bone



# In small children - pes planovalgus

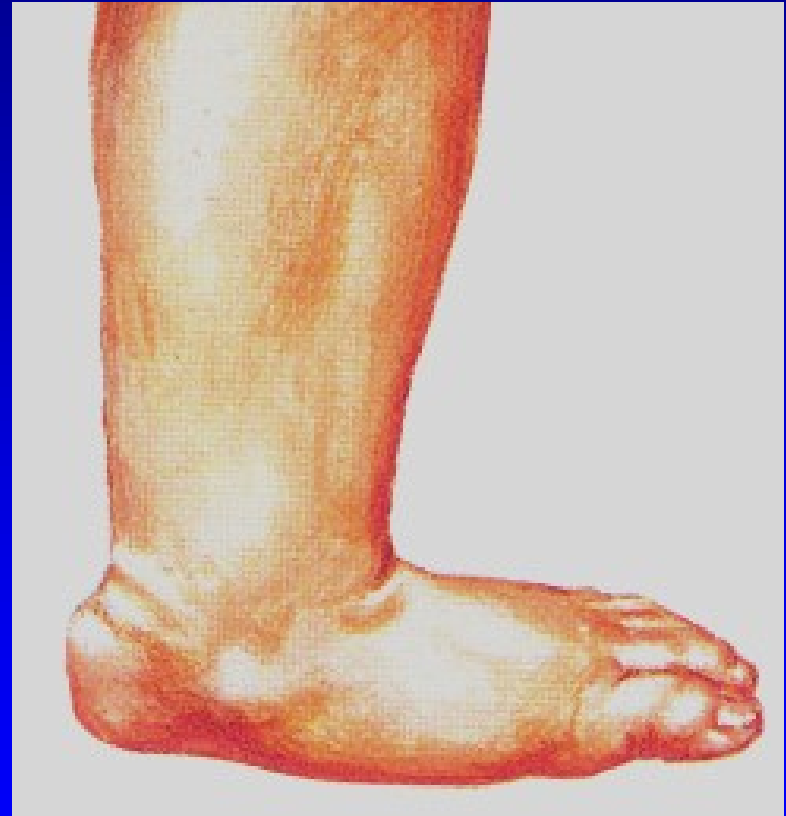
Symptoms:

Asymptomatic

Fatigue

Contractures of the muscles

Pain in the calf



# Management

1.-2. stage

Exercise

Good shoes

Firm heel

Barfoot walking

Not to overload

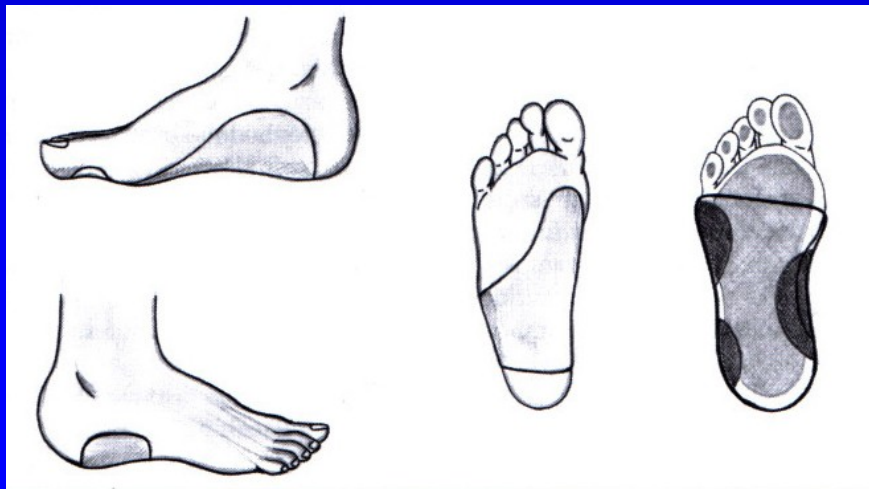
Stretching of m. triceps surae



# Management

3. stage

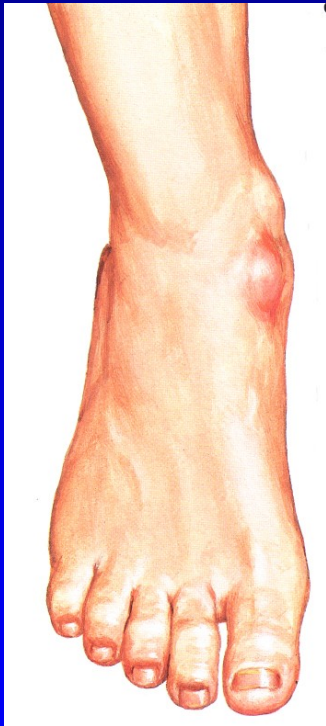
Supports





# Os tibiale externum

Can lead to the flat foot

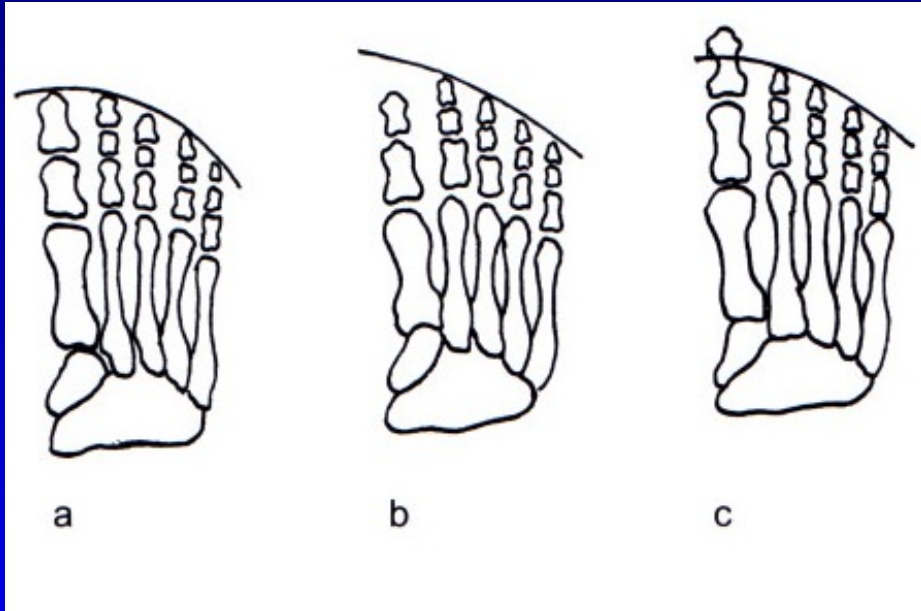


# Peroneal spastic flat foot

Tarsal coalition



# Types of the foot



- a quadratic
- b greece
- c egyptian

# Flat foot in adults

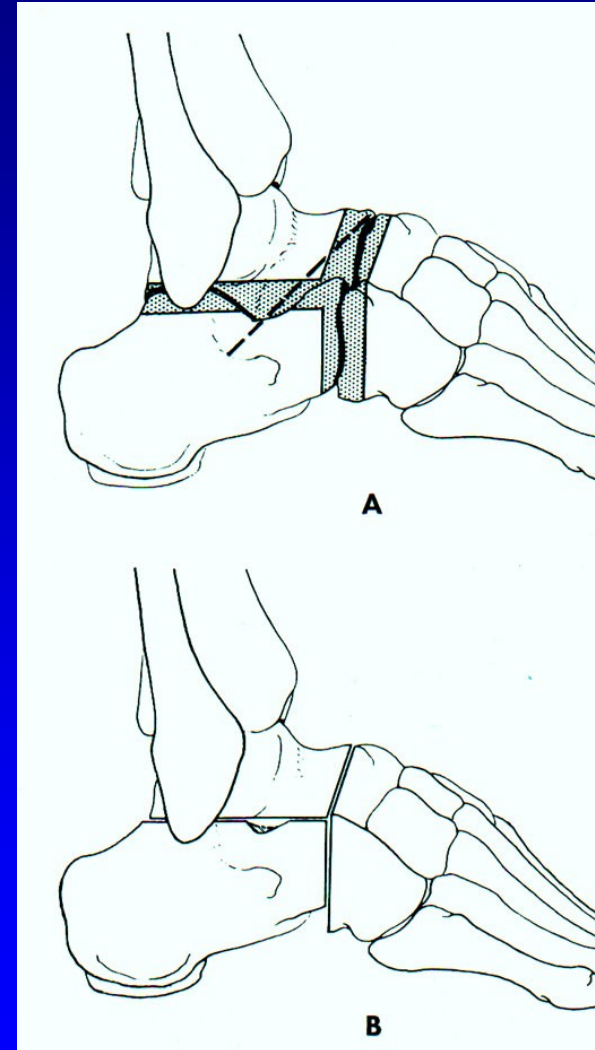
Diminished weight bearing

Good shoes

Physiotherapy

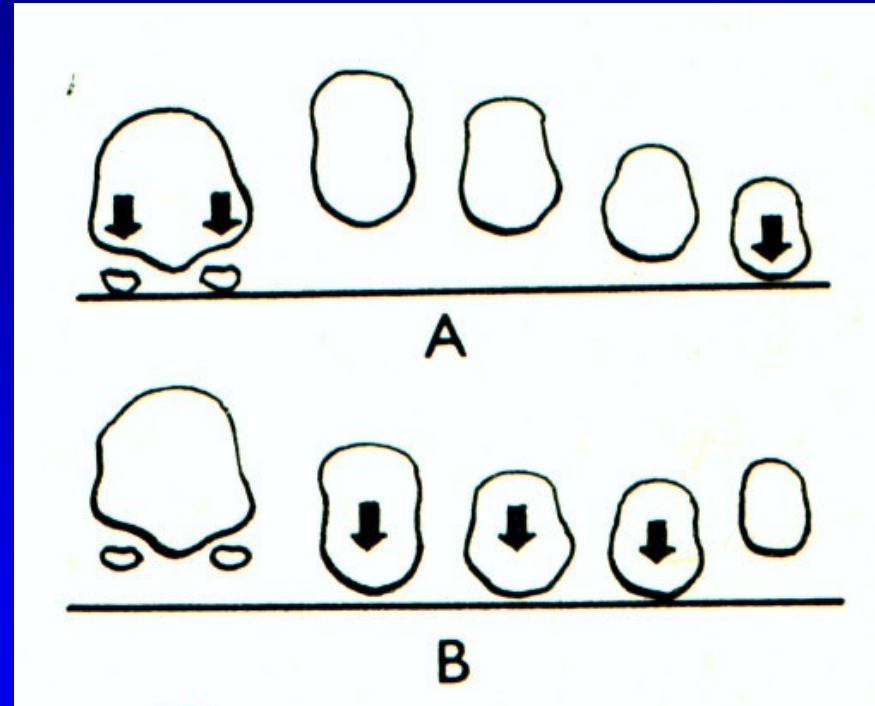
Supports

Surgery- triple arthrodesis



# Transverse flat foot

Normal arch of metatarsal heads



Arch of metatarsal heads  
in transverse flat foot

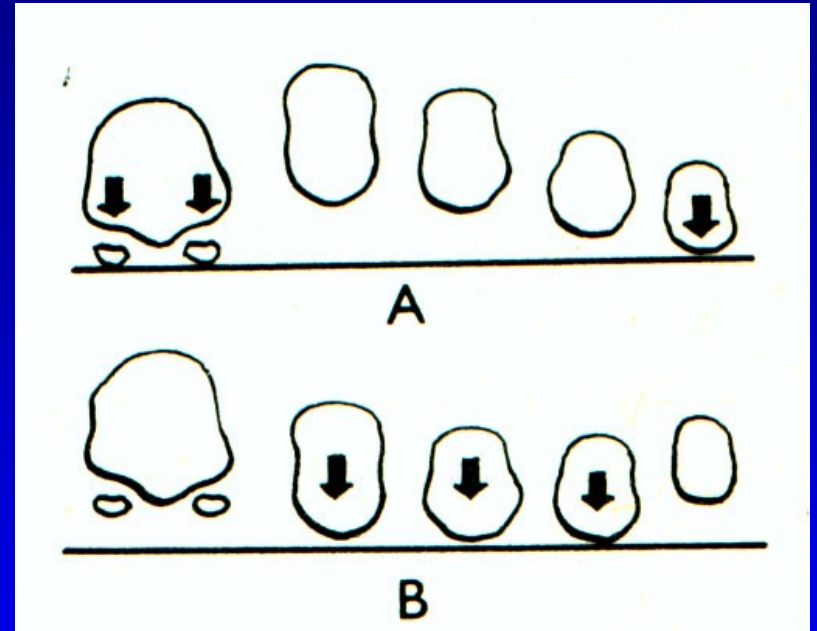
# Pes transversoplanus

Prominence of metatarsal heads

Callosities



# Transverse flat foot



# Management

Diminished weight bearing

Good shoes

Physiotherapy

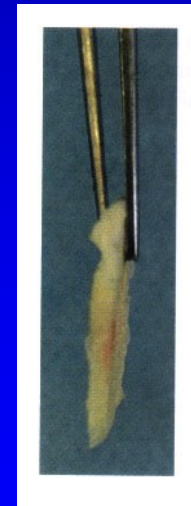
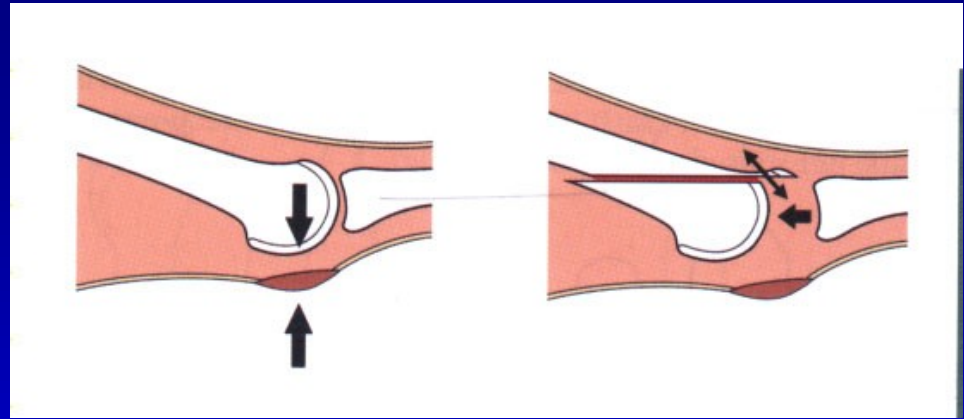
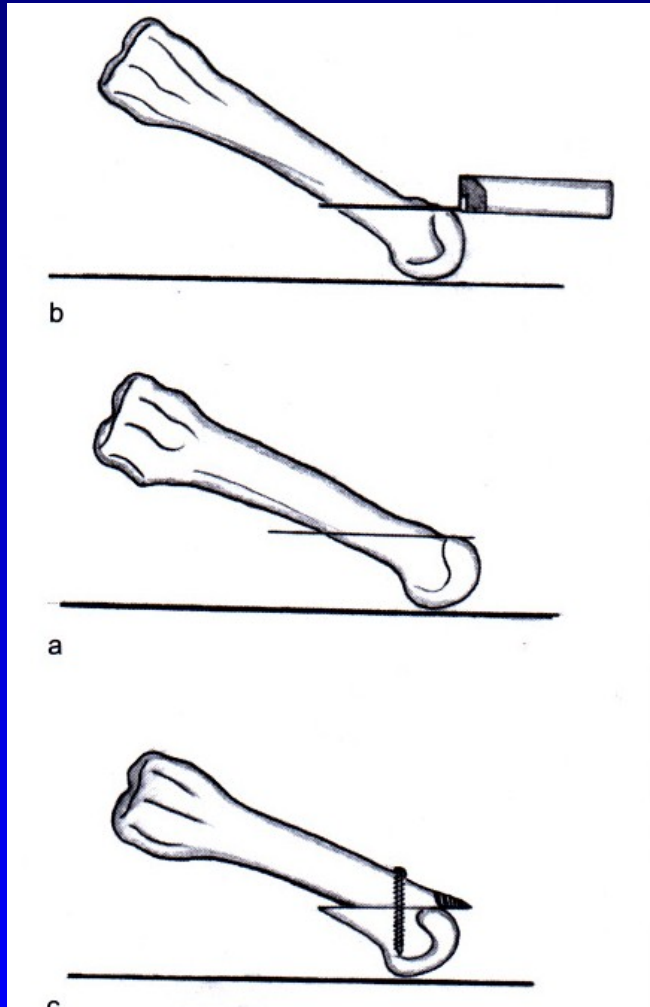
Supports

Surgery

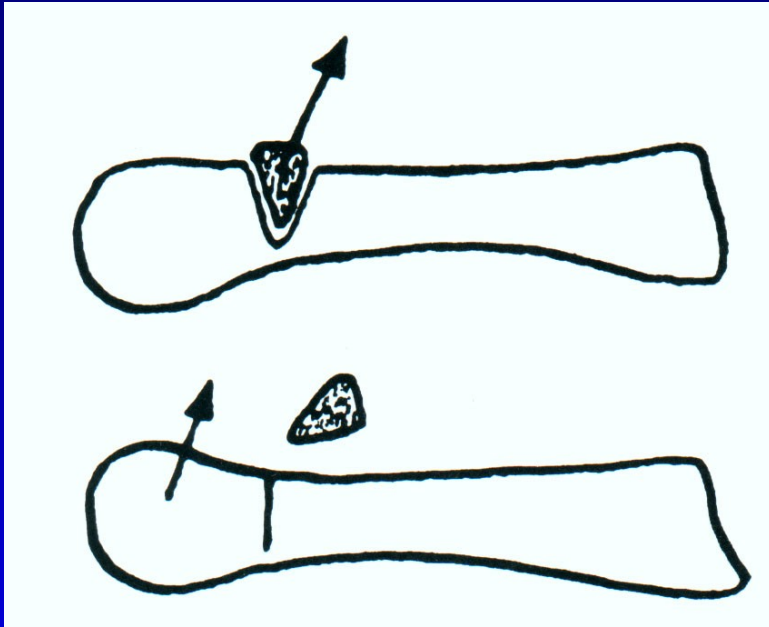




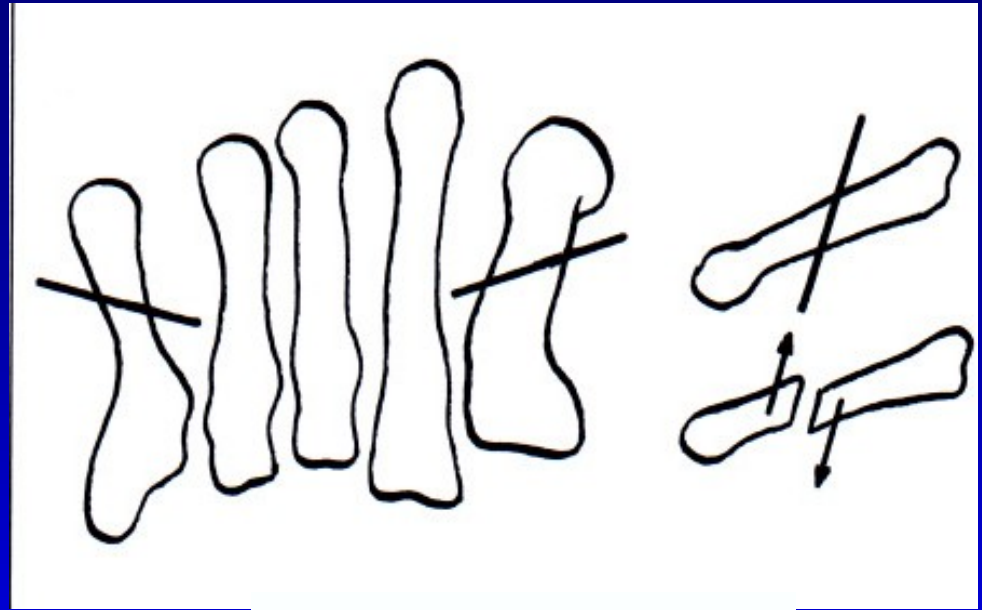
# Weil osteotomy



# Surgery



Obr. 53 Wolf osteotomy

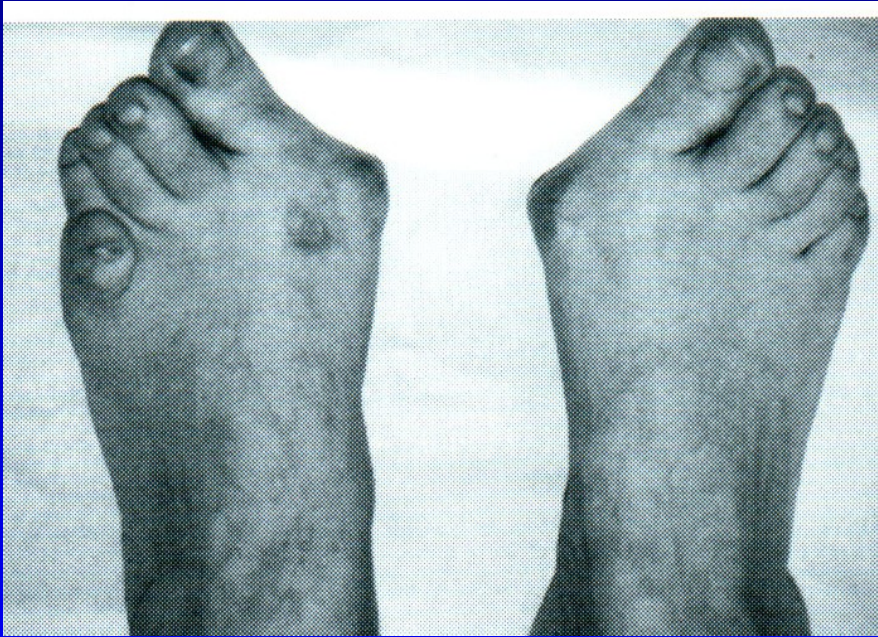


Helal osteotomy

# Resection of metatarsal heads



# Hallux valgus- bunion



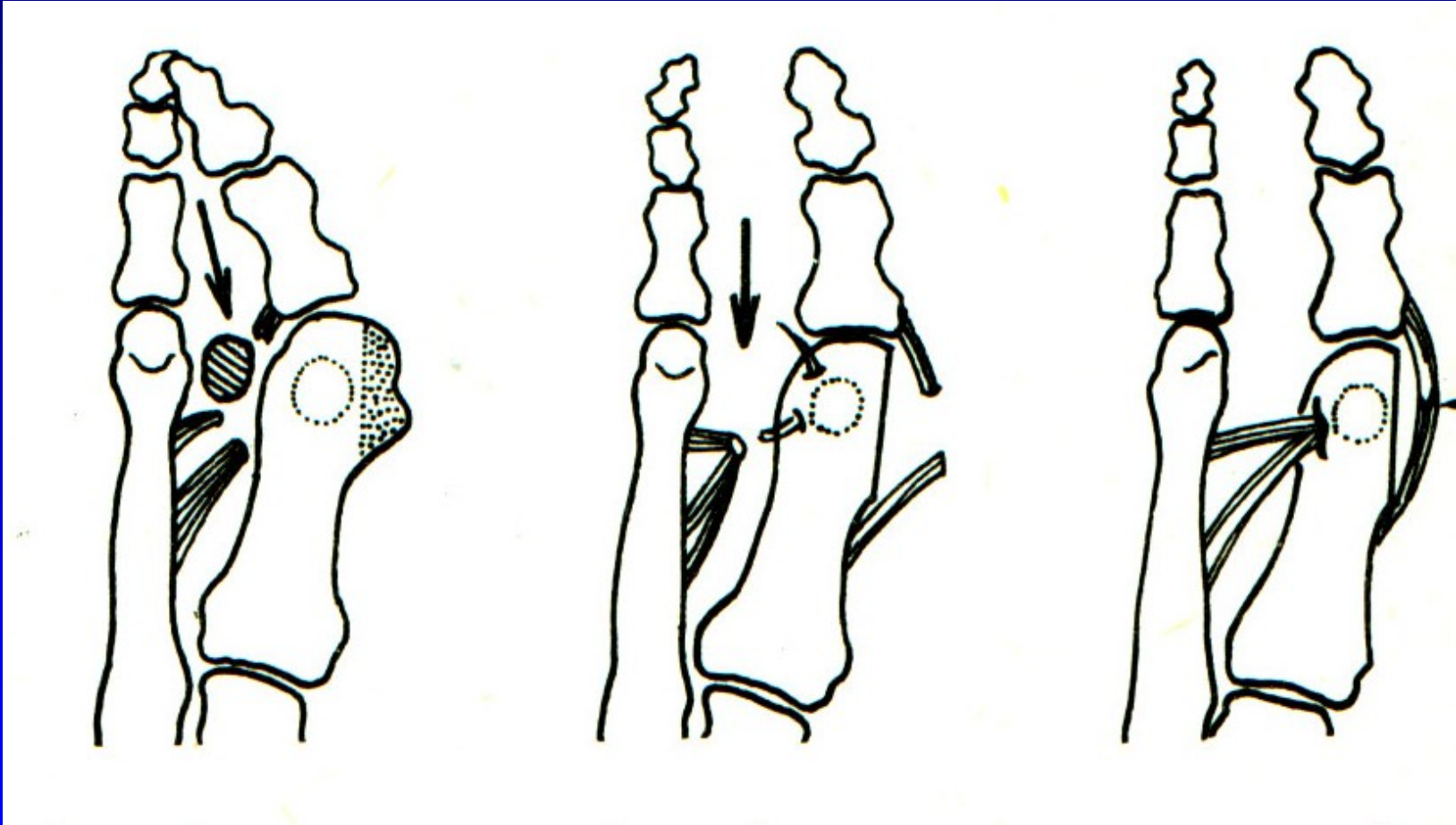
# Surgery

Soft tissues  
Osteotomies  
Resection arthroplasty  
Arthrodesis  
Joint replacement

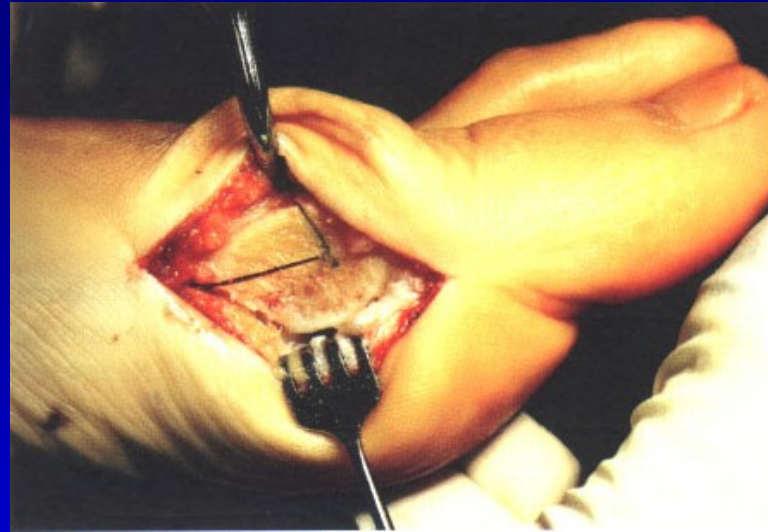
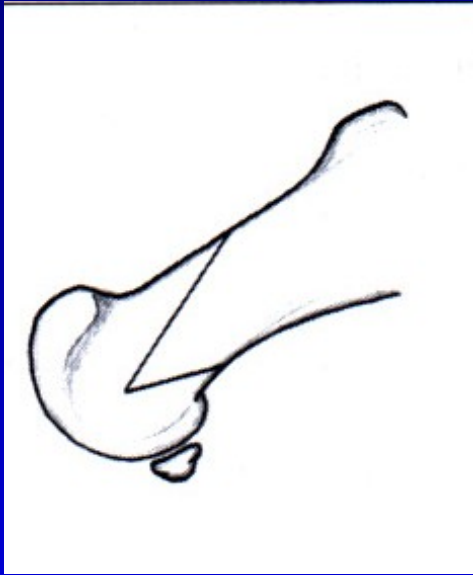


Obr. 61

# Mc Bride procedure



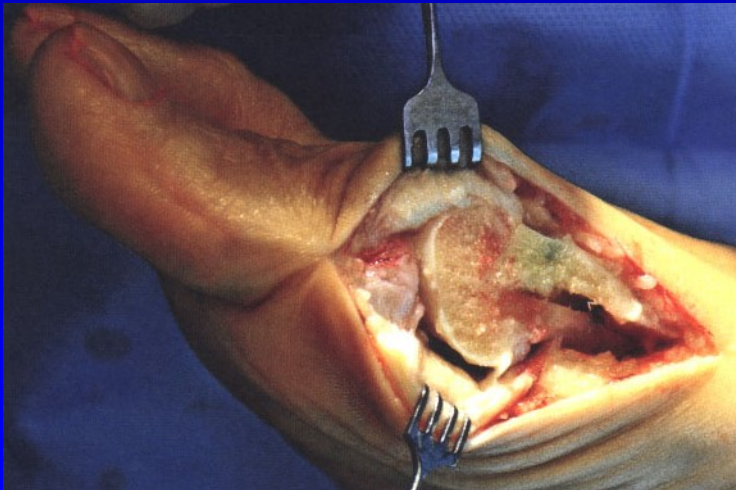
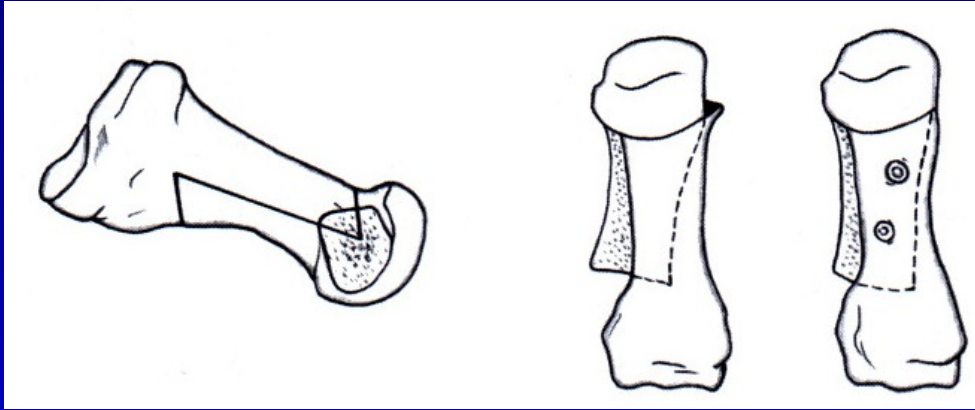
# Osteotomy of the first metatarsal



Chevron osteotomy



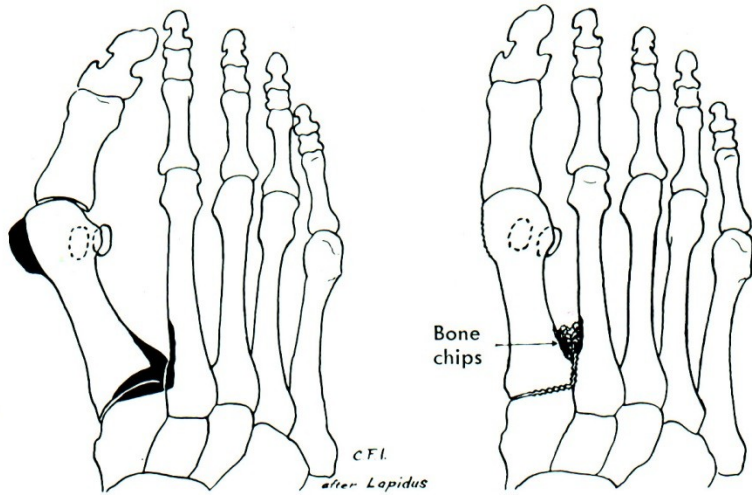
# Osteotomy of the first metatarsal



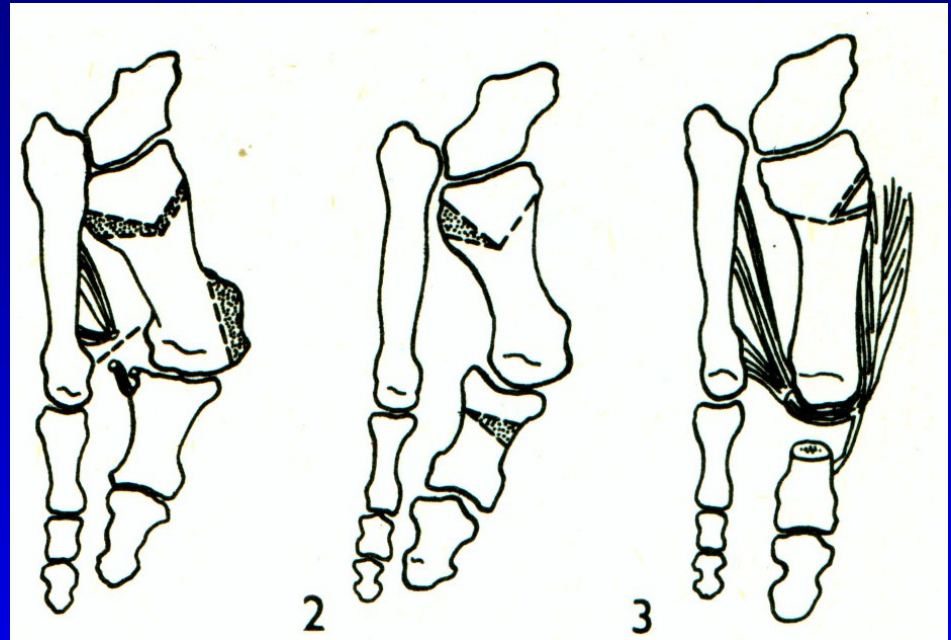
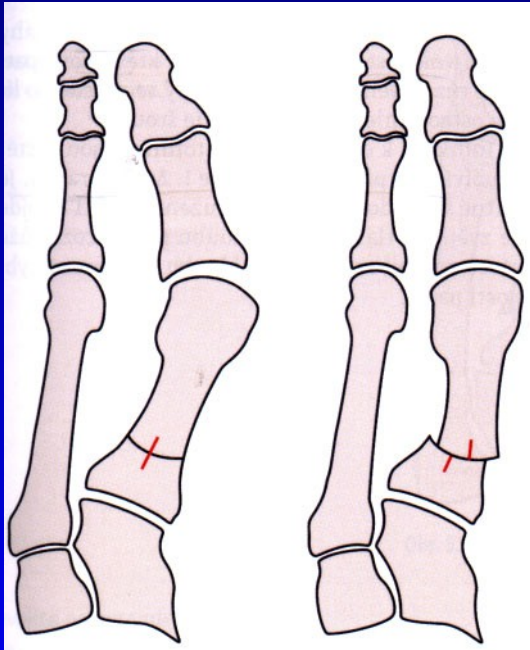
Obr. 64 Scarf osteotomy



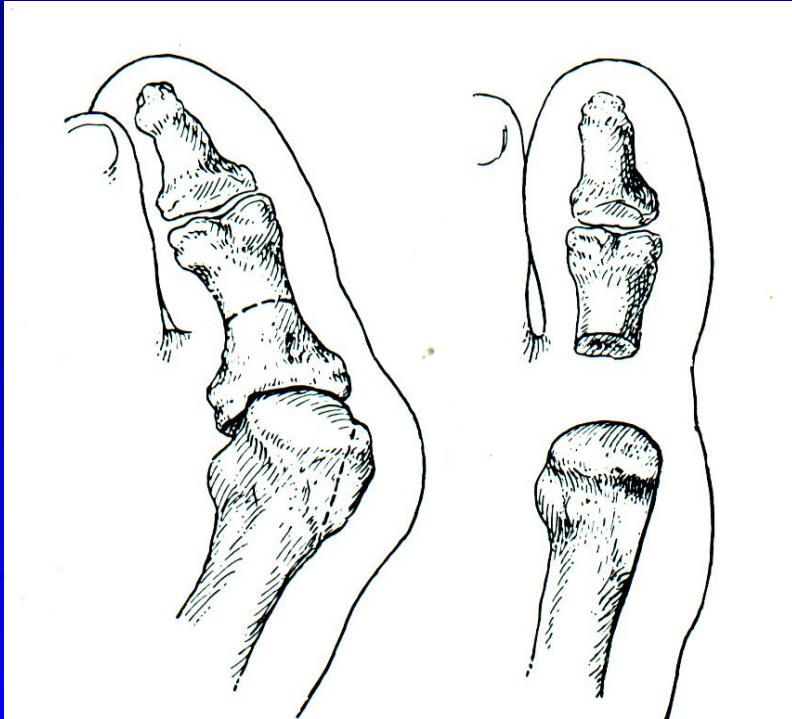
# Op. sec. Lapidus



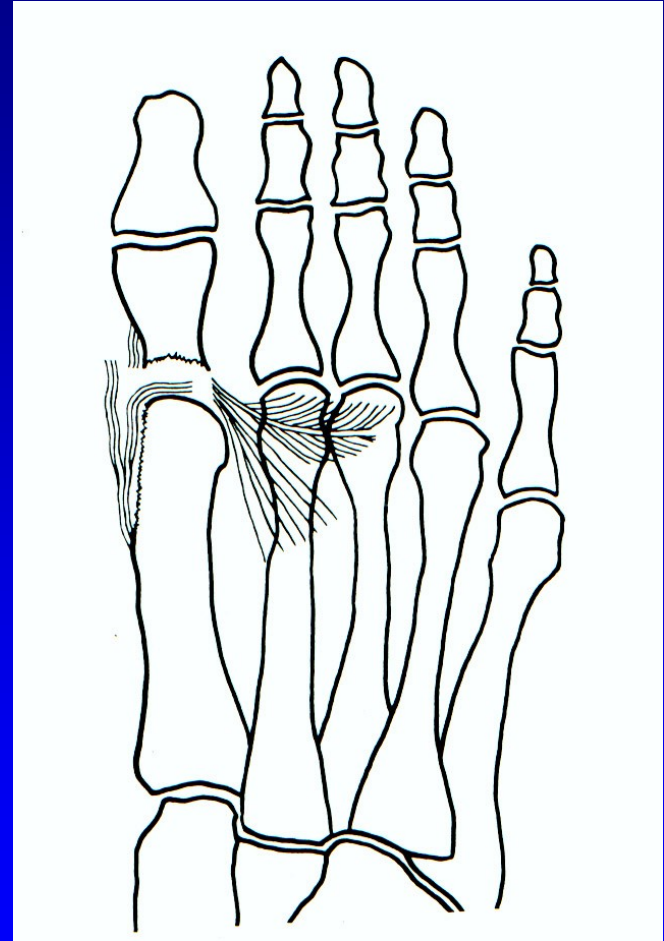
# Proximal osteotomy of the first metatarsal



# Op. sec. Keller – resection arthroplasty

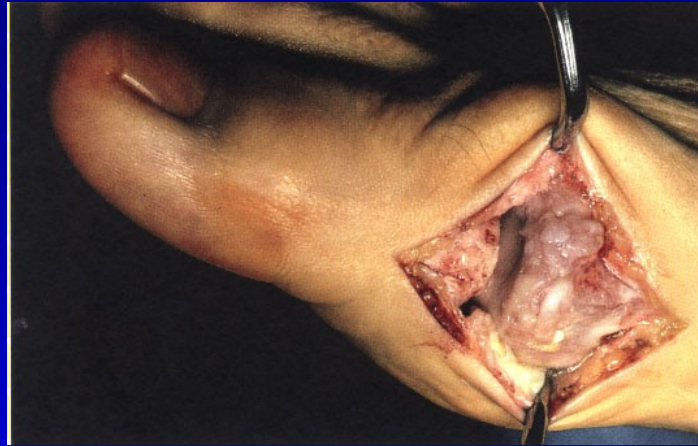


Obr. 67



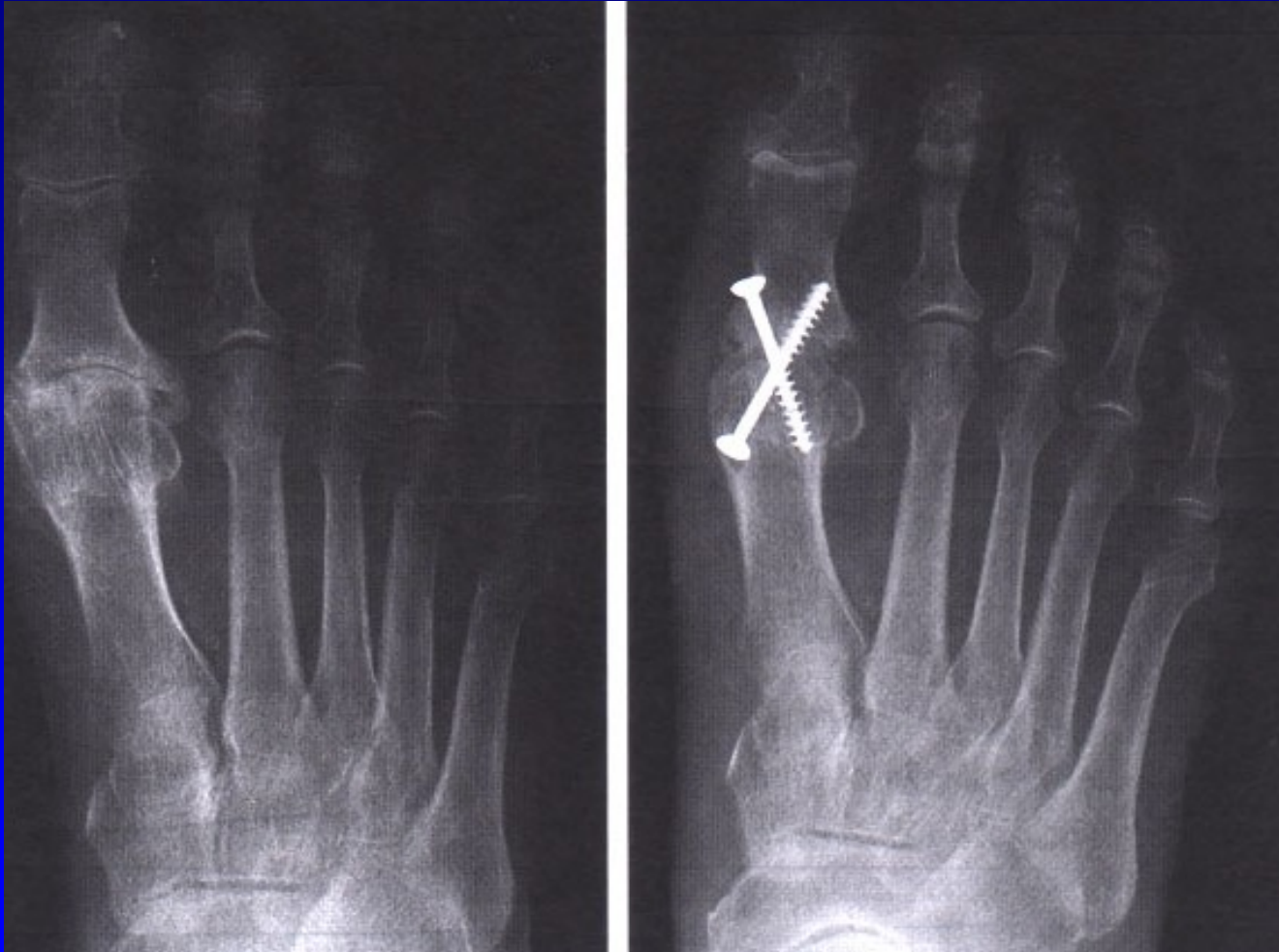
Obr. 68

# Hallux rigidus

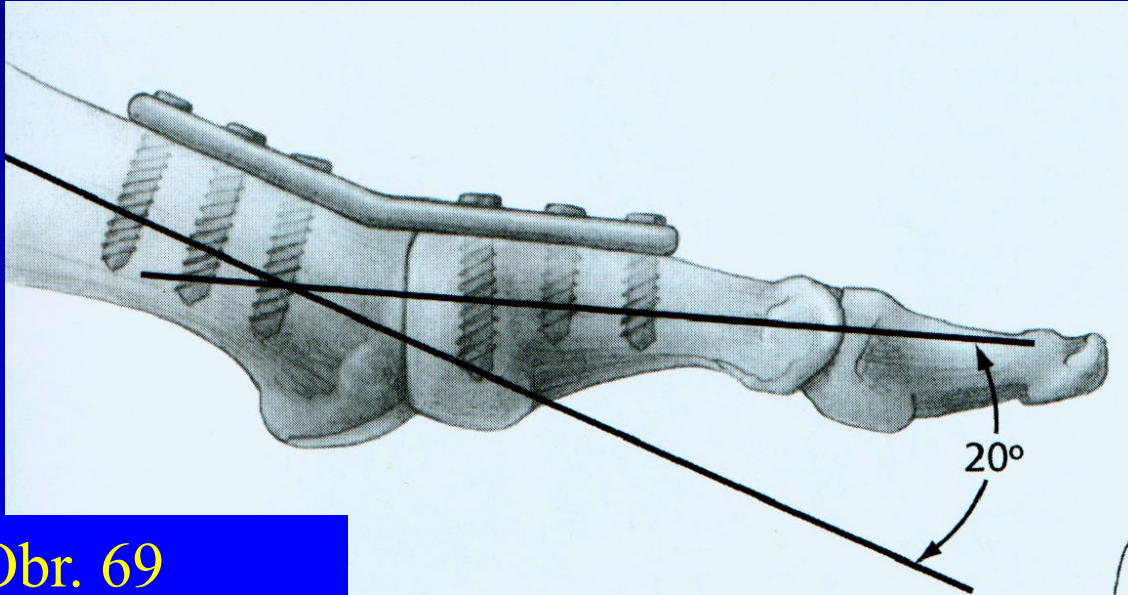


Arthrosis art. MTP<sub>h</sub>. I.

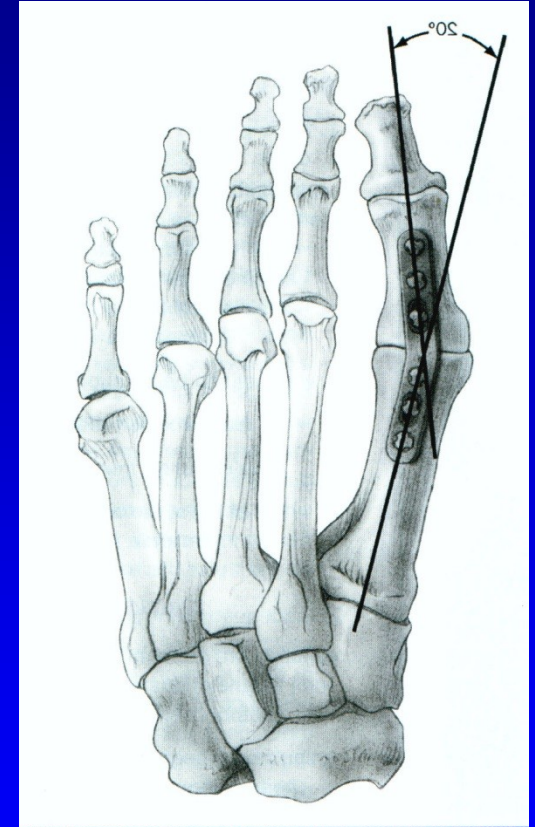
# Arthrodesis of the big toe



# Arthrodesis of the big toe



Obr. 69



Obr. 70

# Replacement of the first metatarsal joint



# Deformities of the foot

Pes varus

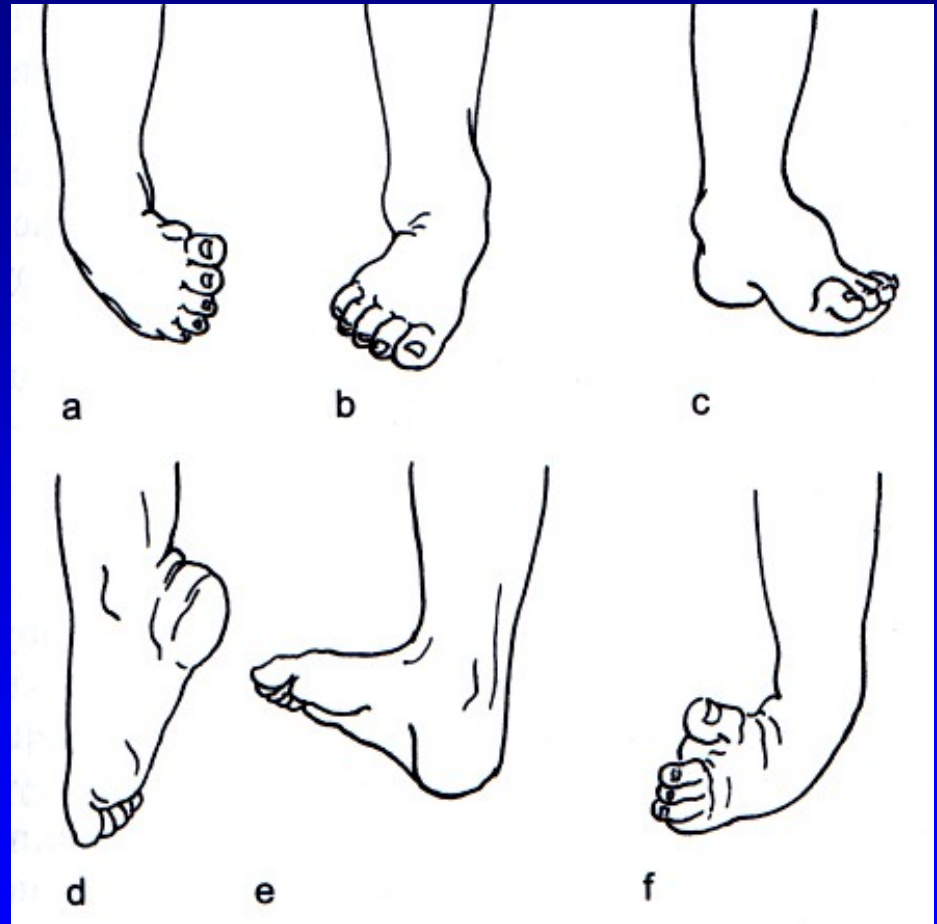
Pes valgus

Pes cavus

Pes equinus

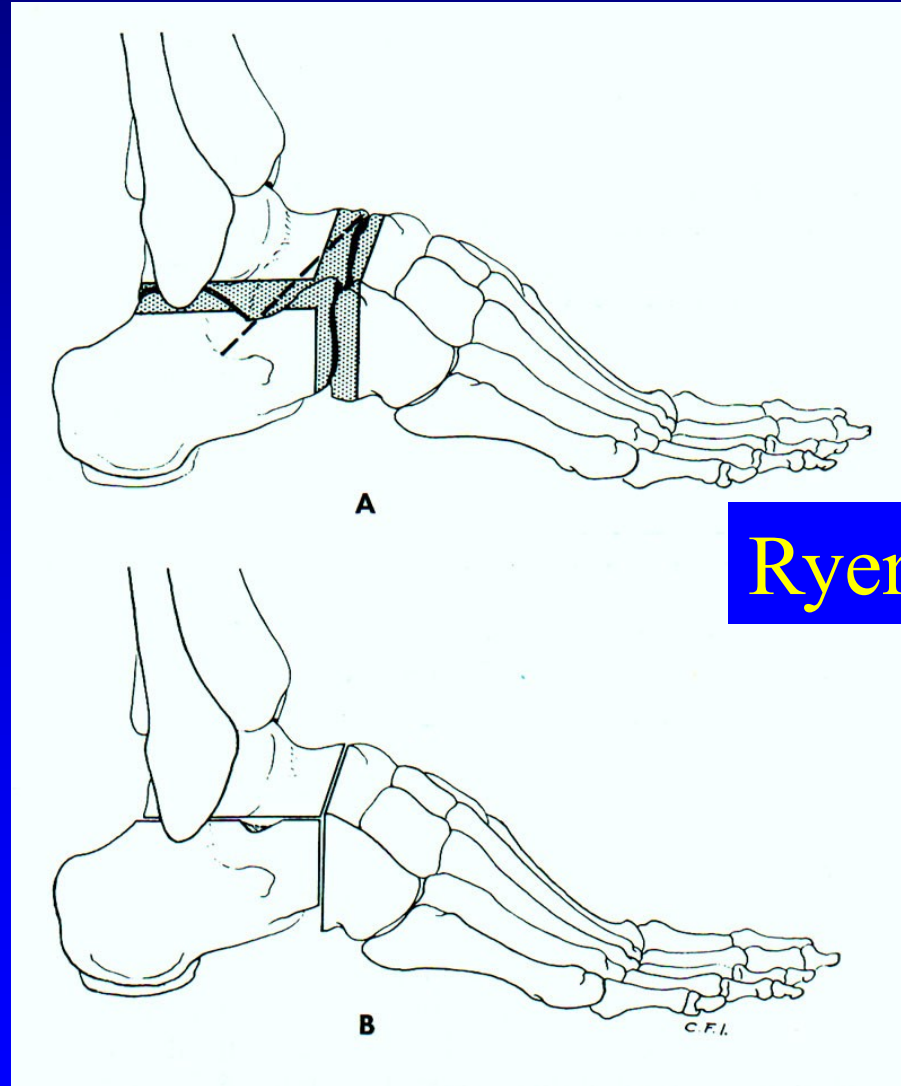
Pes calcaneus

Pes equinovarus





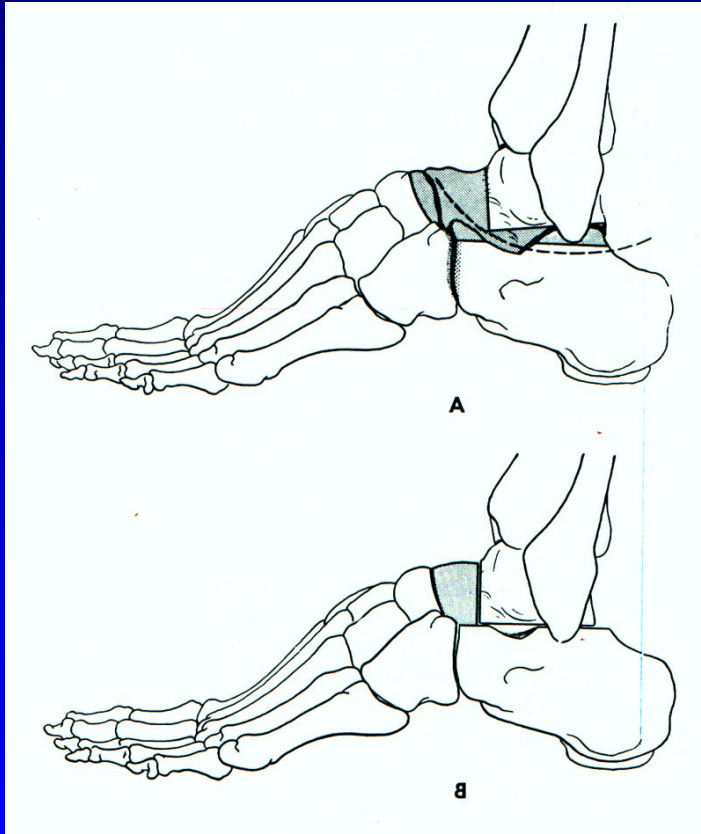
# Triple arthrodesis



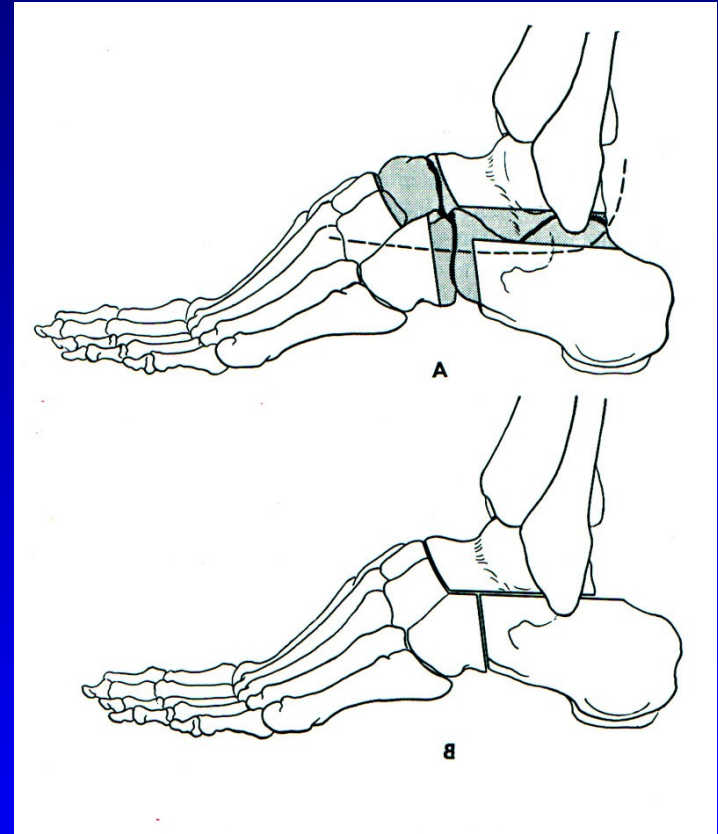
Ryerson

Obr. 74

# Triple arthrodesis- modifications

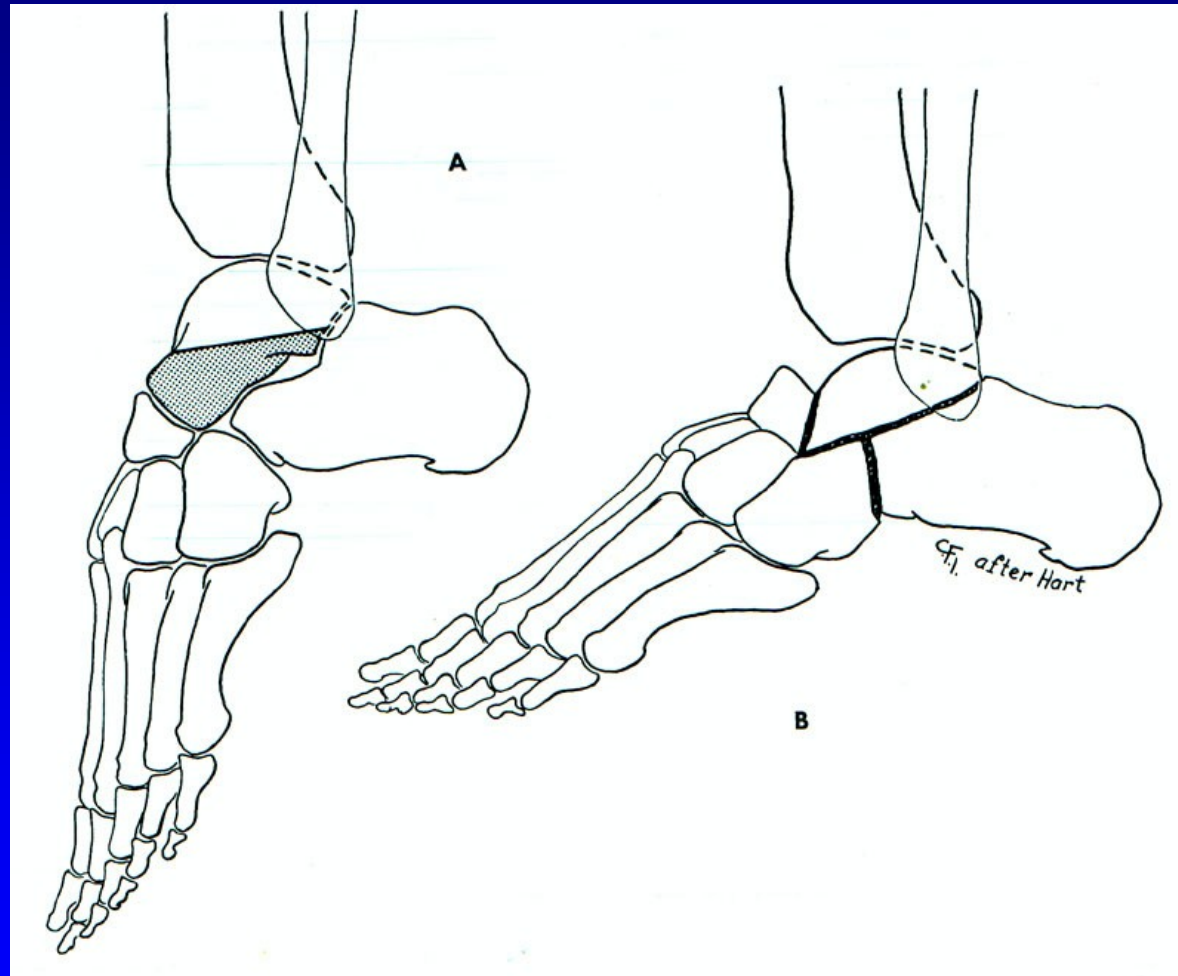


Obr. 75 Dunn



Obr. 76 Hoke

# Triple arthrodesis



Obr. 77 Lambrinudi

# Pes equinus- drop foot



Obr. 78



Obr. 79

# Correction of the drop foot by triple arthrodesis



Obr. 80

# Triple arthrodesis for pes cavus

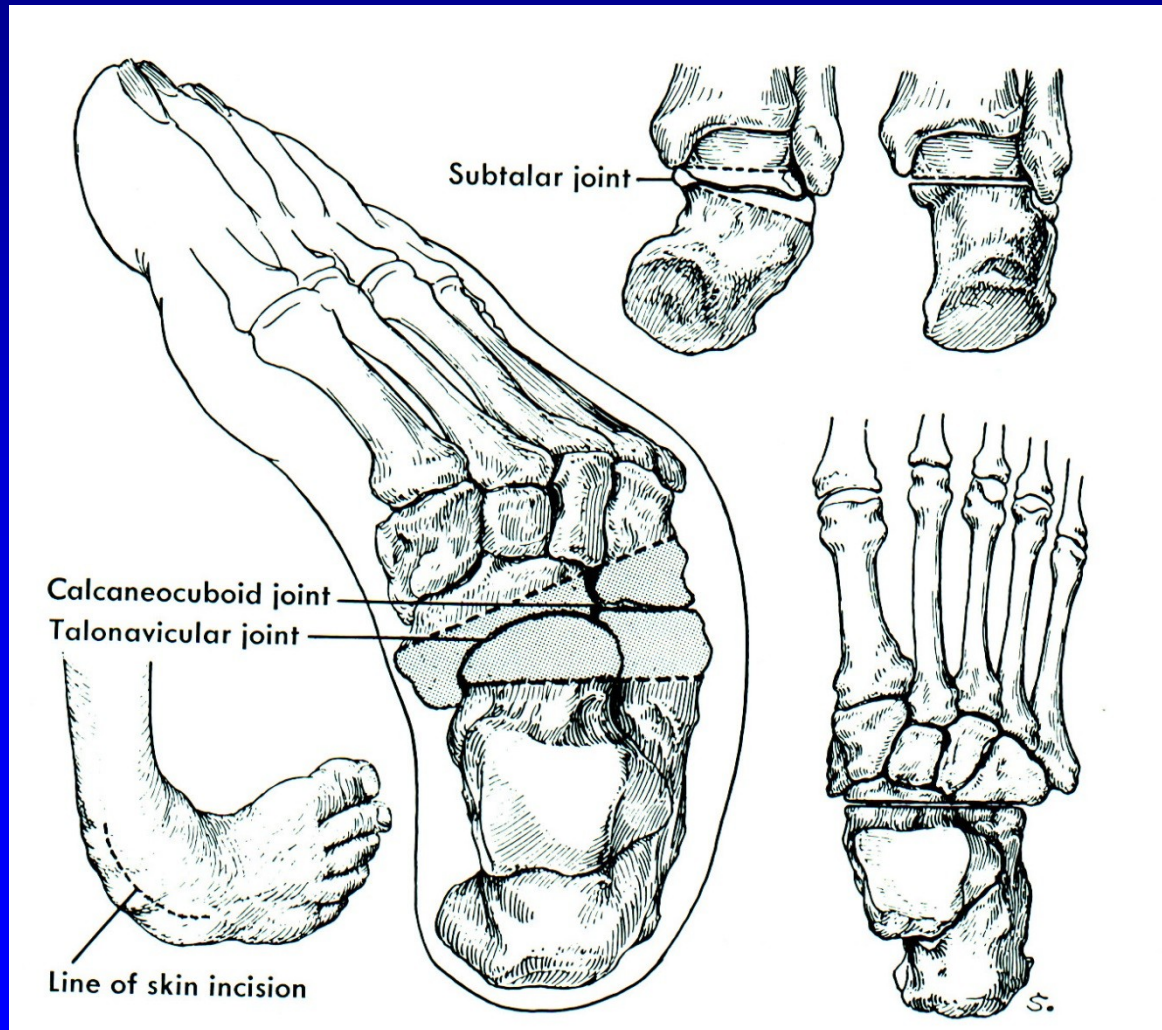
Preop.



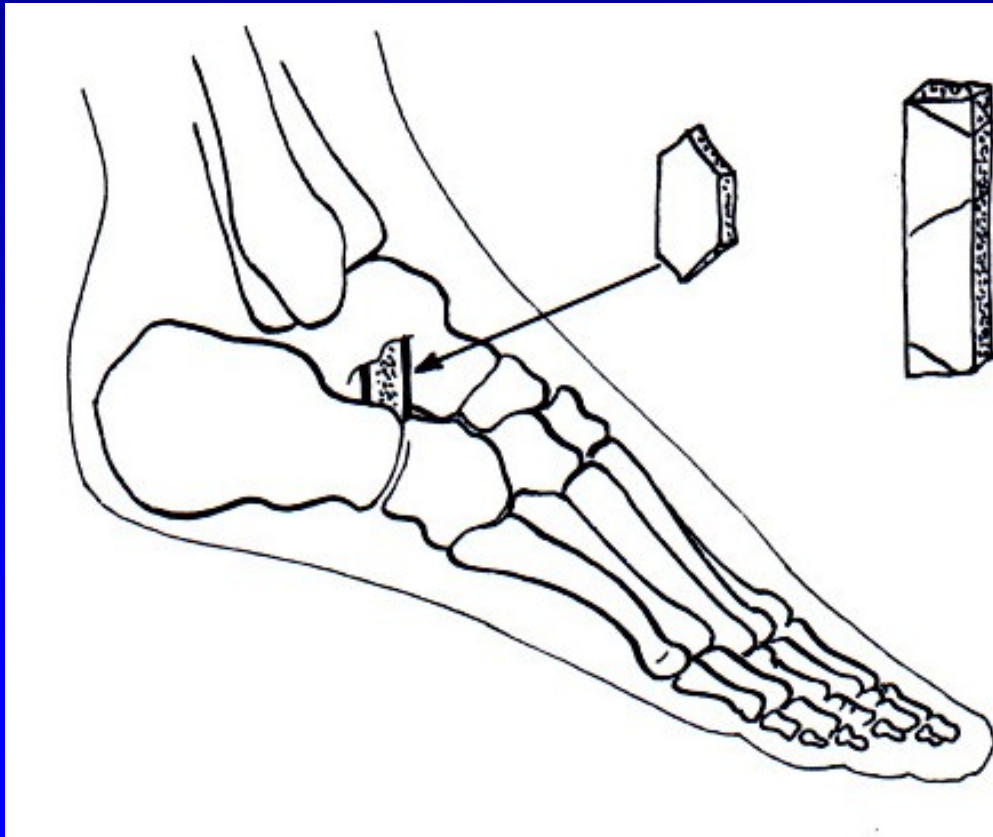
Postop.



# Tripple arthrodesis - pes equinovarus Talipes clubfoot

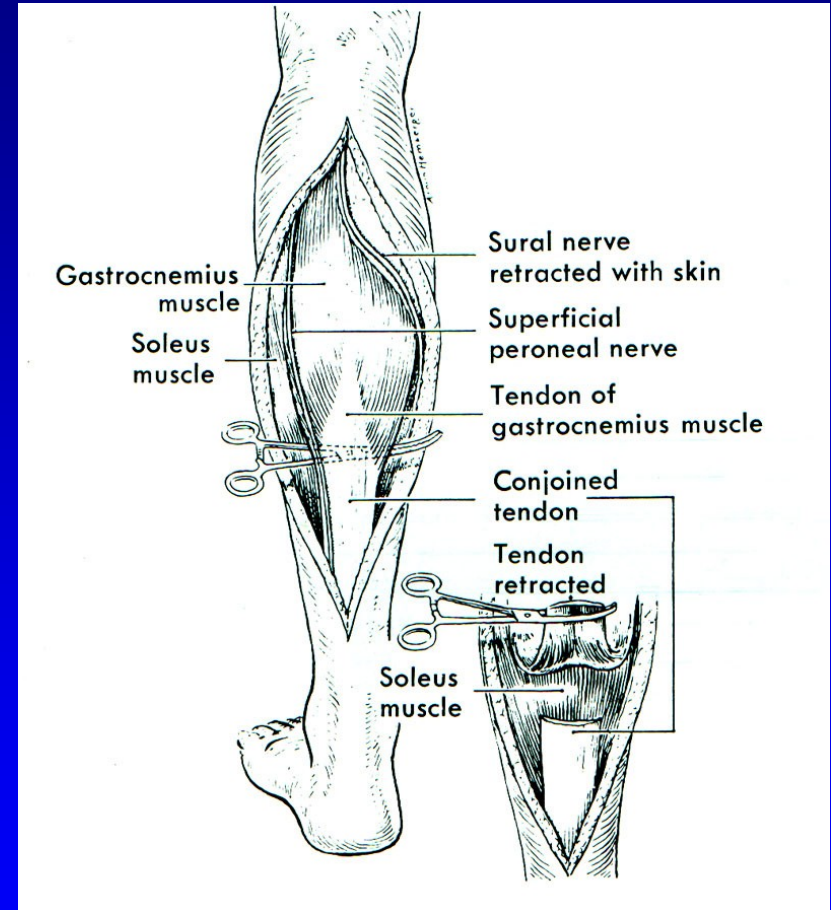
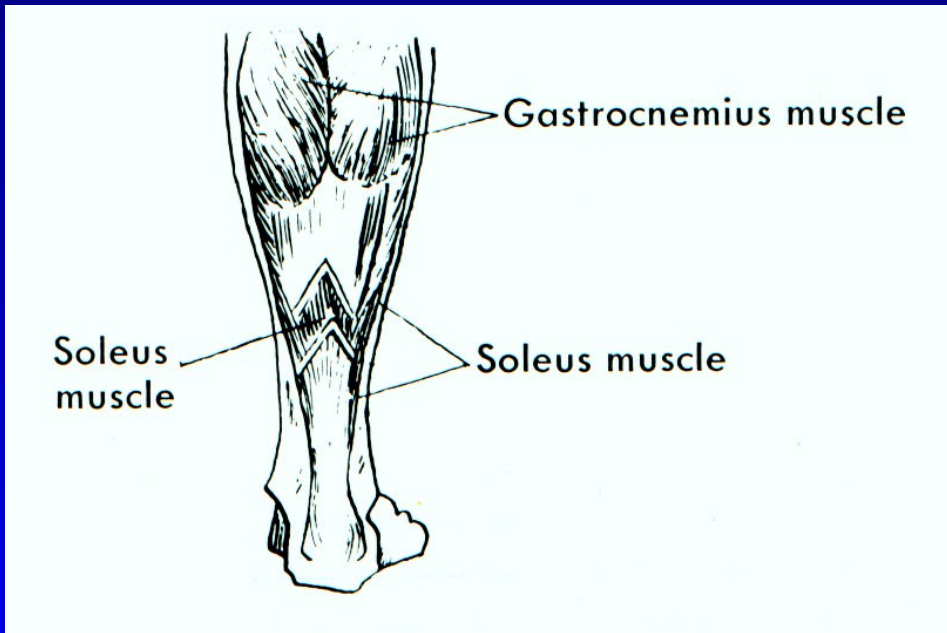


# Correction of deformity of the foot in children Grice extraarticular arthrodesis





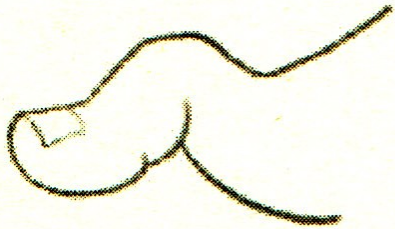
# Prolongation of Achillis tendon



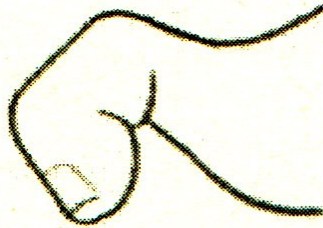
Obr. 88 Vulpius

Obr. 89 Strayer

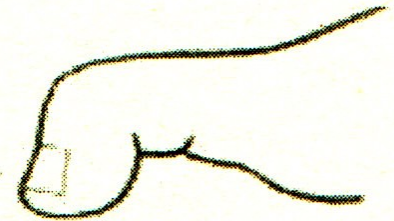
# Deformities of the toes



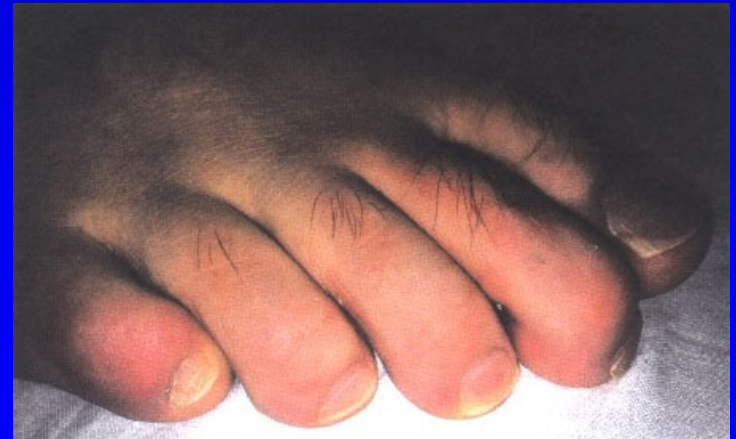
mallet toe



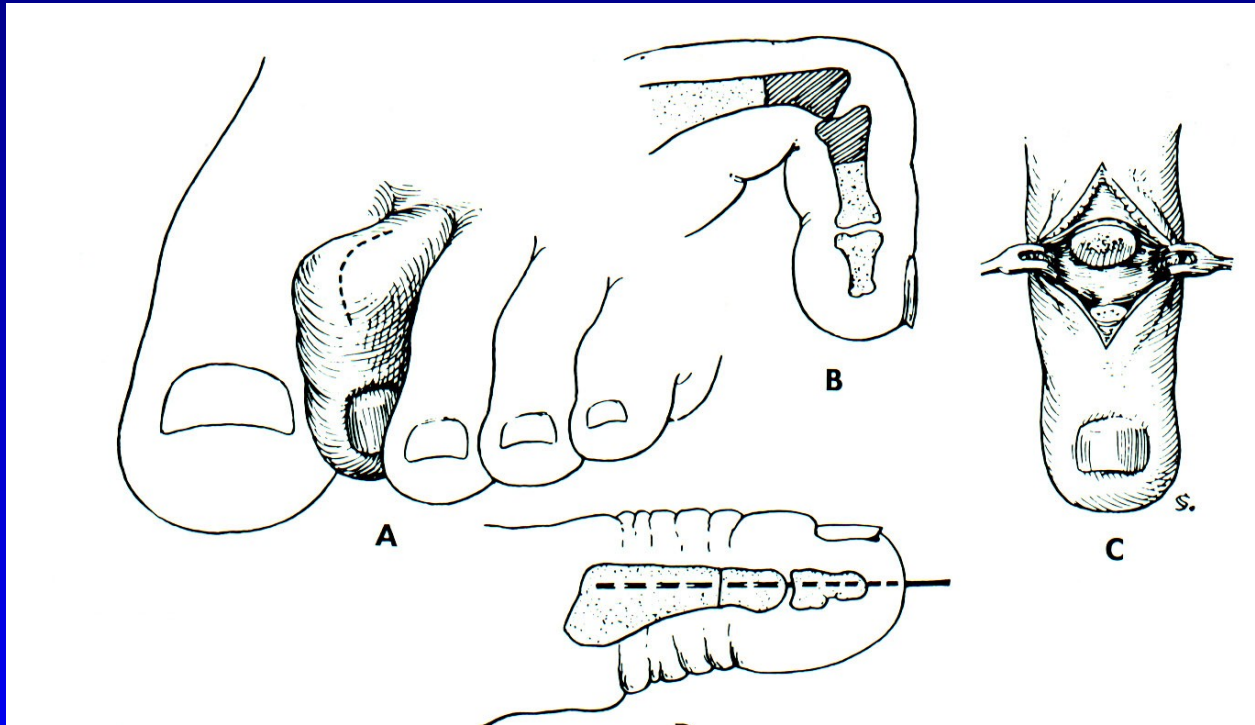
flexed toe



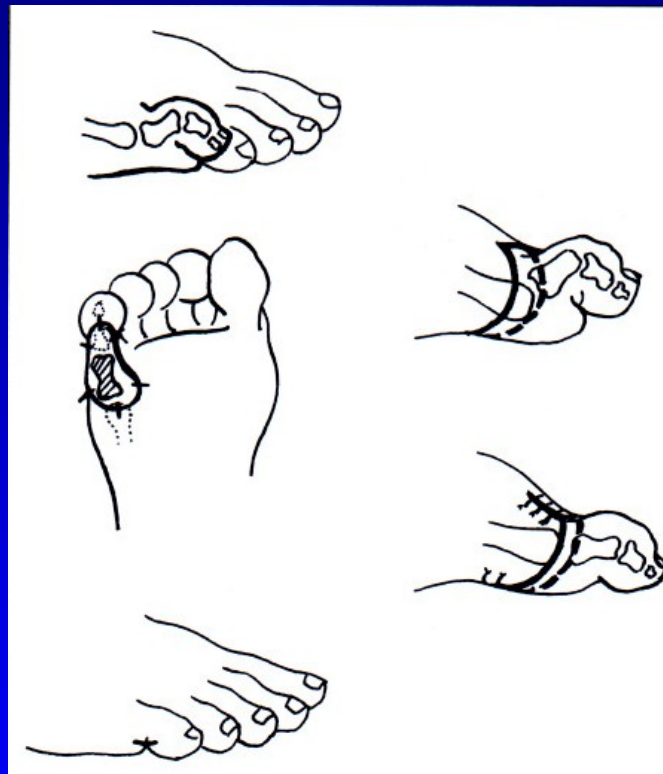
flexed DIP joint



# Mallet toe- dig. hamatus



# Dig. superductus



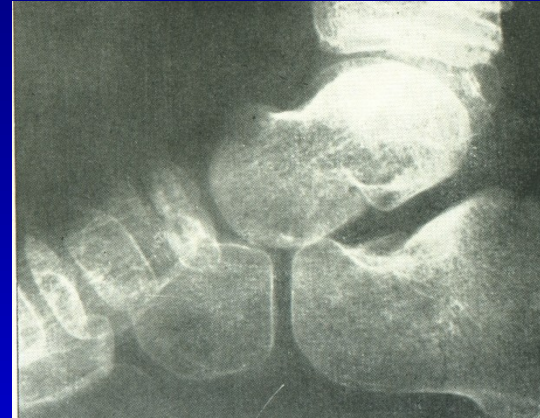
# Aseptic necrosis of bones

m. Köhler I.

m. Köhler II.

m. Haglund- Sever

Osteochondropathy  
of sesamoid bones



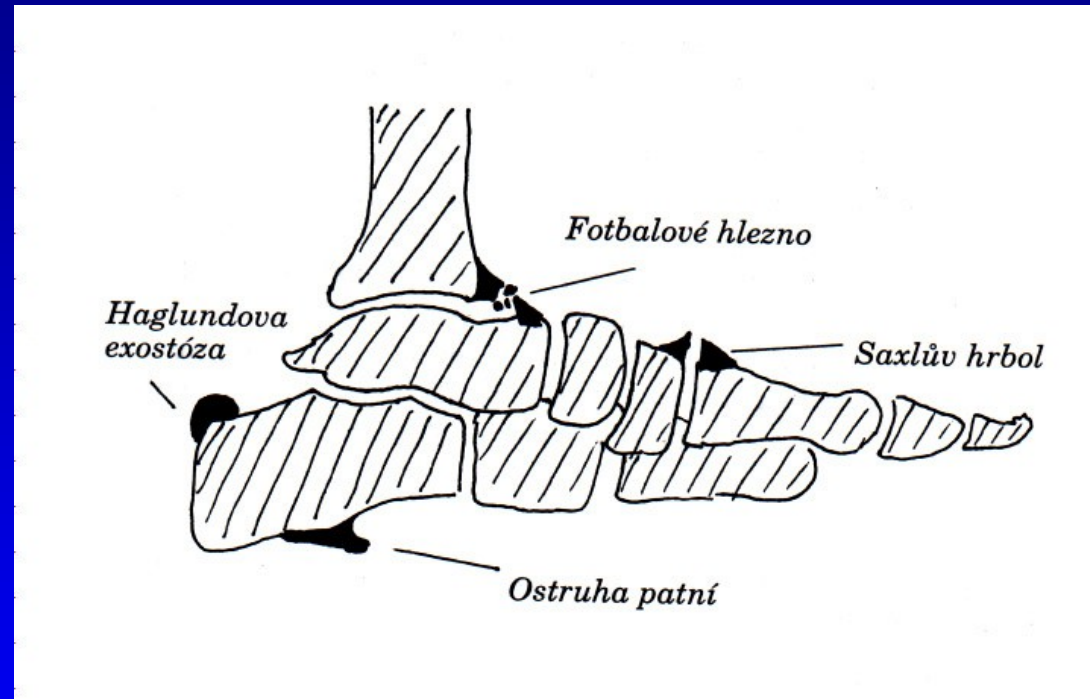
# Bursitis and entesopathies

Achillodynia

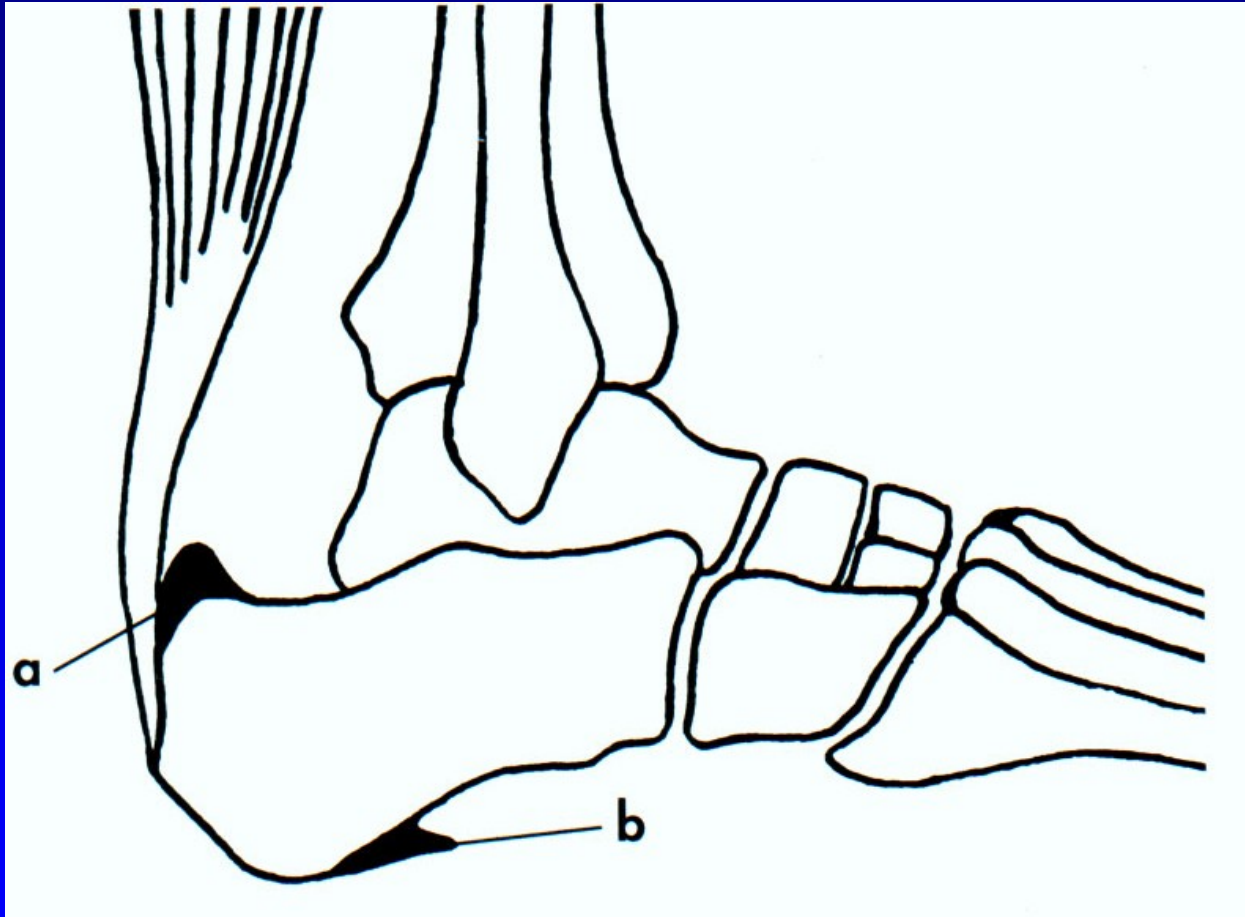
Calcaneal spur

Haglund exostosis

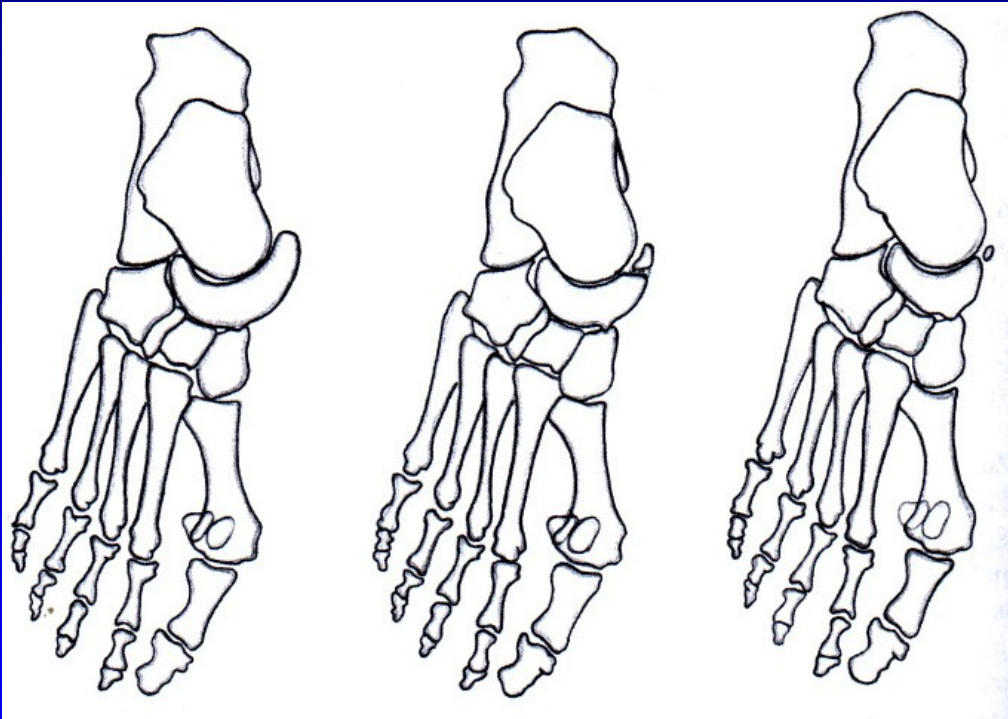
Os tibiale externum



# Calcaneal spur



# Accessory bones



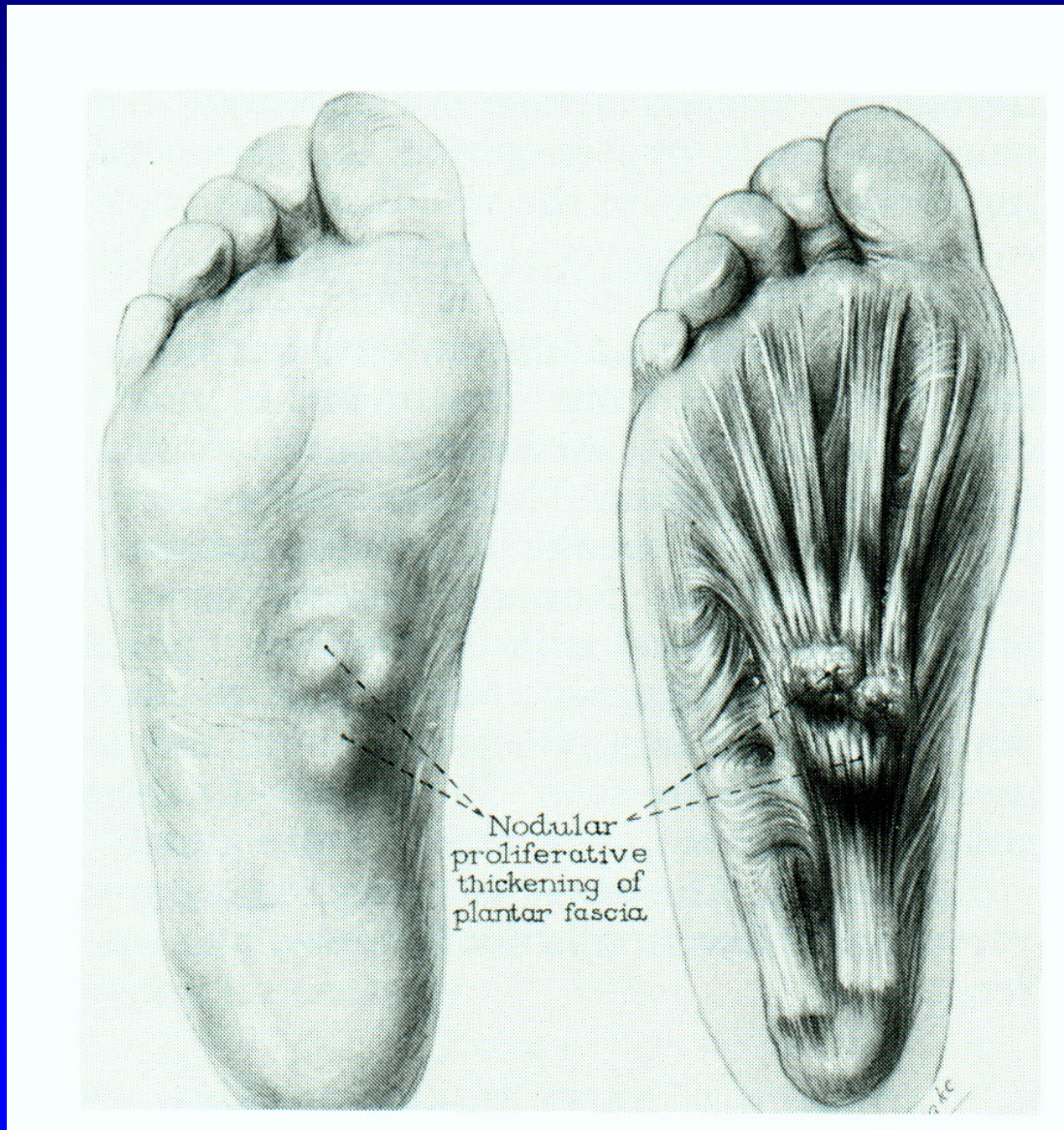
Obr. 97 Os tibiale externum



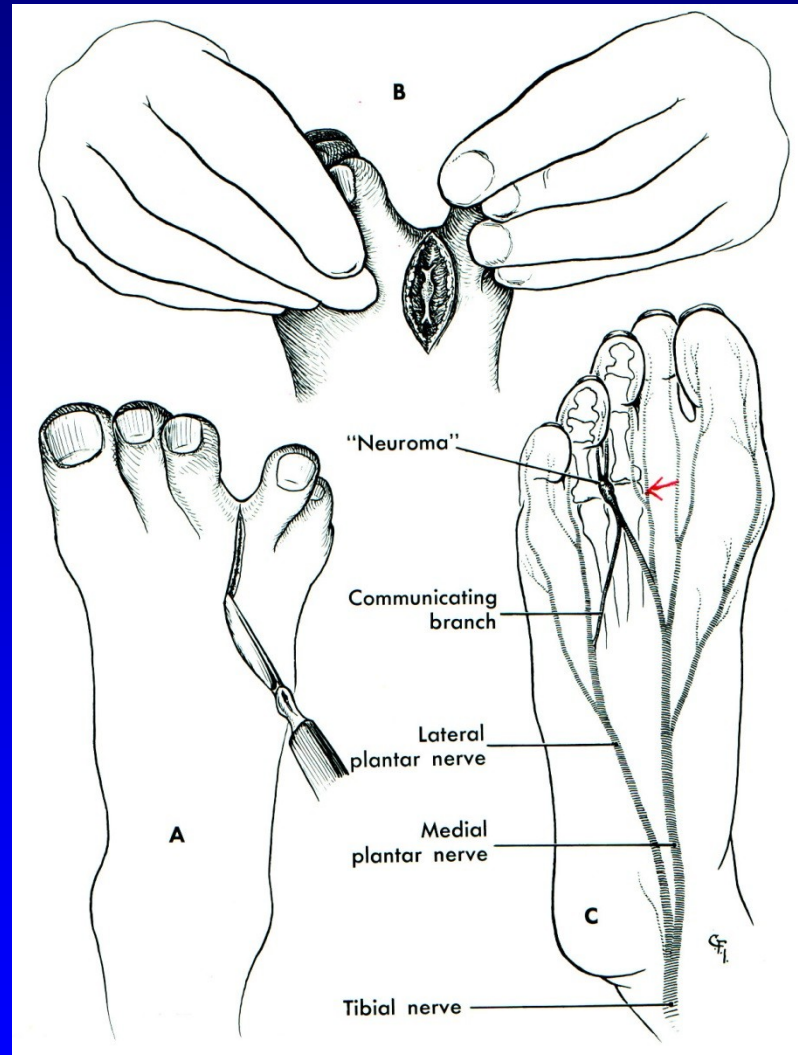
Obr. 98 Os trigonum



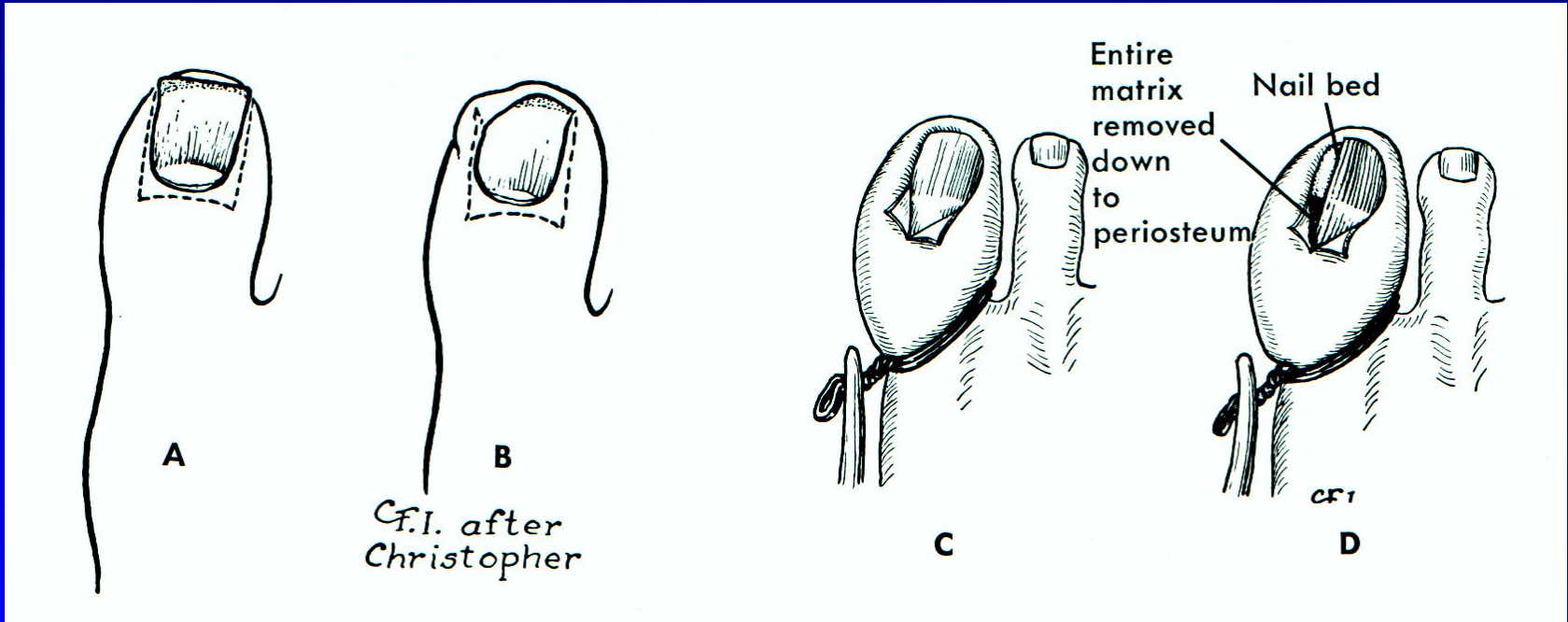
# Plantar fibromatosis



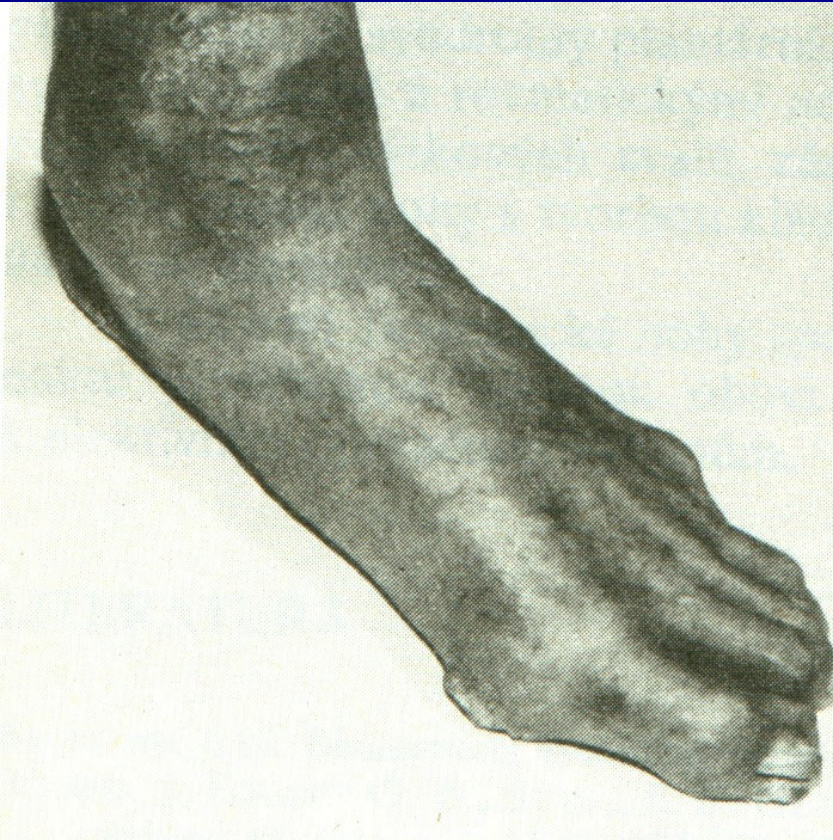
# Morton neuralgia



# Unquis incarnatus



# Diabetic foot



7-15 % diabetics

Diabetic neuropathy

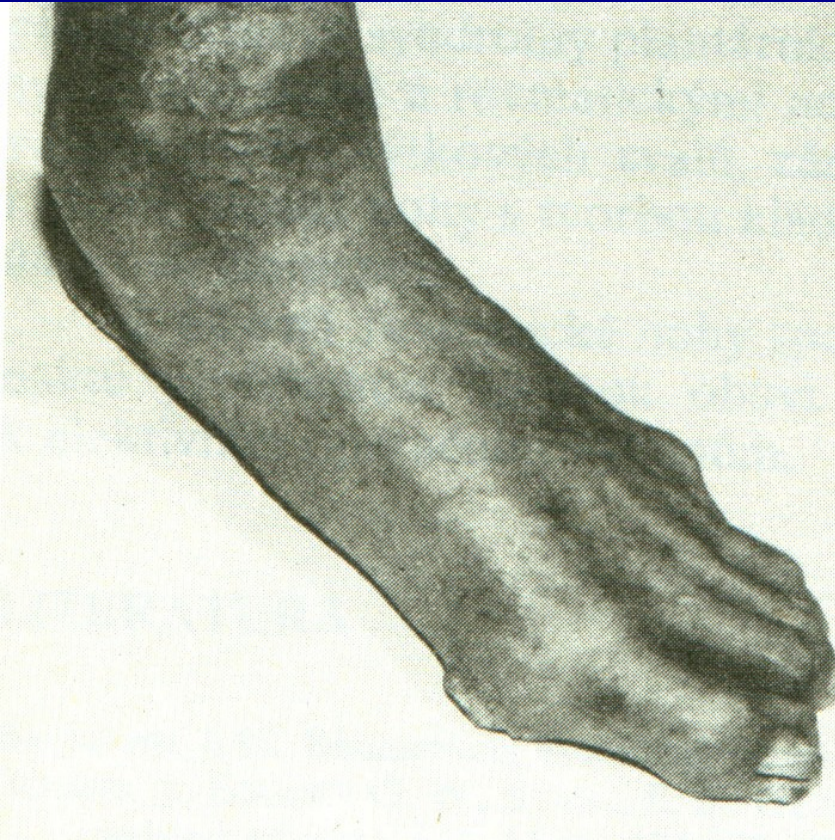
Ischemic disease of lower  
Extremity

Diabetic microangiopathy

Obr. 100

# Diabetic foot

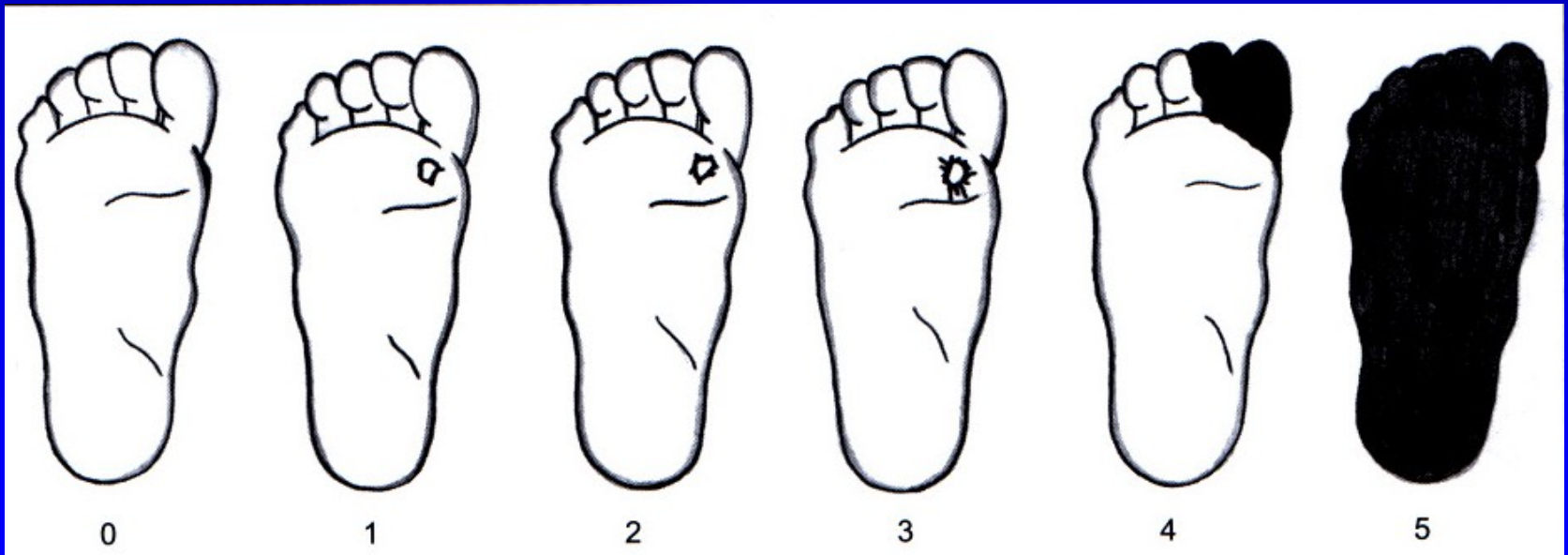
Charcot neuropathic joints



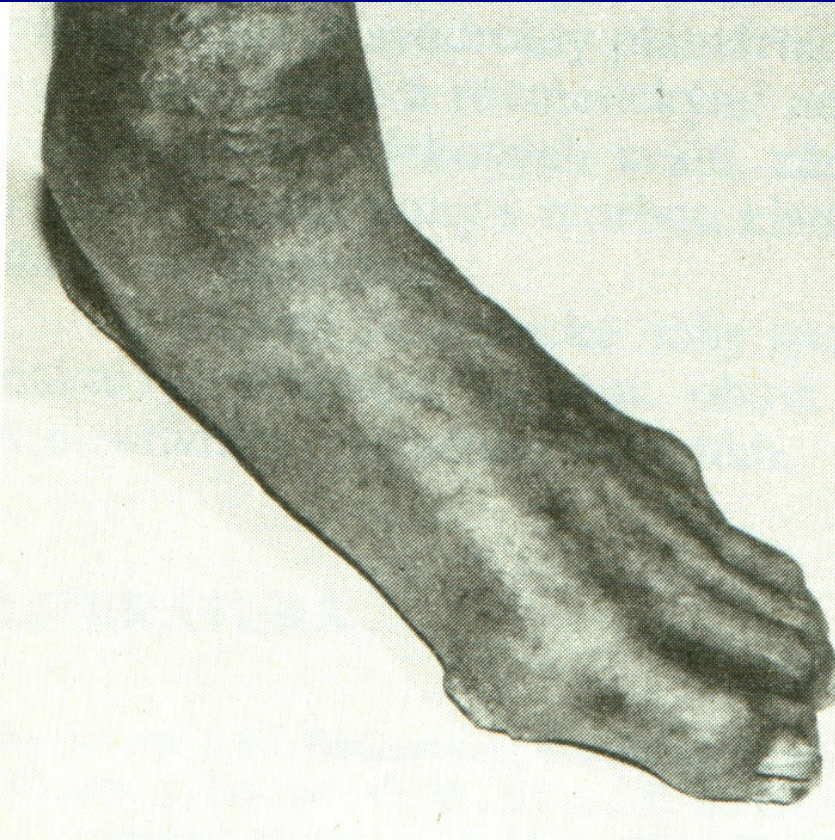
# Diabetic foot

Ulcers

Necrosis



# Management



Team work  
Regular f/up  
Insulin -therapy  
Desinfection  
Proteolytic agents  
Antibiotics  
Vasodilatancia, vit E  
Angioplasty  
Bypass  
Hyperbaric chamber  
Immobilisation  
Arthrodesis  
Amputation (15 %)

# Other causes of pain in the foot

Neurogenic: sciatica, spinal stenosis

Vascular: varixes

chronic venous insufficiency,  
ischemic vessel disease

Stress fractures

Synovitis of MTP<sub>1</sub> joints

Sesamoid bone problems

Tumors

Inflammations: pyogenic, R.A., psoriatic,  
gout

Tenosynovitis

Neurogenic arthropathies

