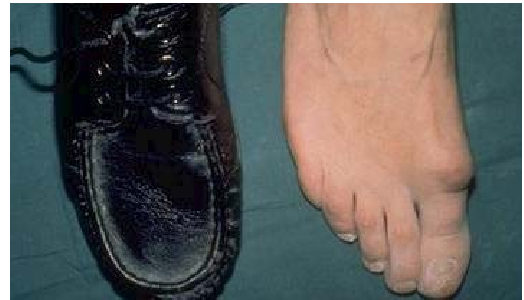
**HALLUX RIGIDUS**

After Hallux valgus, the Hallux rigidus is the most common painful affection of great toe.
2% between: 30-60 yrs
Female: Male is 2:1

**Clinical**



1. Stiffness, Increase pain before toe off
2. Localized dorsal swelling
3. Mechanical block of dorsiflexion
   (DF blocked and minimal changes in PF)
4. Lateral metatarsalgia and callus
5. Usually increased movement at IPJ of the great toe
6. Movement of MTP of the great toe
   Marked restricted movement of the first MTPJ Dorsiflexion with relatively limitation of plantar flexion [Normal ROM 40º plantar flexion and 65 º dorsal extension]
7. Shoe oblique crease is quite apparent
8. Normal Ankle; Subtalar and midtarsal joint movements

**Radiological**

Grade I Joint space is preserved and mild osteophytes.
II Joint narrowing, subchondral sclerosis
III Uniform decrease joint space + gross Osteophytosis

**Treatment**

**Non-operative**

**O**rthoses: stiff sole; low healed shoe
Antiinflammatory analgesics
Intra-articular Steroid

**Operative**

**Early case**

Chielectomy [Excise one quarter to one third of the head]
If less than 60º Dorsiflexion after chielectomy , the dorsiflexion can be increased by dorsal wedge osteotomy of Proximal phalanx [Moberg]
90% were satisfied.

**Late cases**

Arthrodesis
Keller's
Replacement MPJ

## CHIELECTOMY

Longitudinal incision along medial border of EHL [2mm lateral to the tendon]
Open the joint and expose medial and lateral aspect of the joint
Inspect the articular surface by plantarflexing the great toe at MTPJ
Saw cut: from distal to proximal (about 35% of the head)
Excise osteophytes from the proximal part of the proximal phalanx, the osteophytes all around the head.
Check passive Dorsiflexion of MTPJ after the surgery.
Aim is to achieve 70º Dorsiflexion after cheilectomy
Pass Macdonald's to break any adhesion between sesamoid and head

Additional procedure: [Moberg procedure] Dorsal closing wedge osteotomy of the Proximal phalanx

## MTPJ ARTHRODESIS [McKeever]

Longitudinal incision along medial border of EHL [2mm lateral to the tendon]

Open the joint and expose medial and lateral aspect of the joint and inspect the articular surface by plantarflexing the great toe at MTPJ

Reamers: Concave for proximal phalanx and convex for head of the metatarsal.
The cut surfaces are positioned so that the great toe lies in 15 degrees of valgus and 30º dorsiflexion in relation to the shaft of the first metatarsal [5 º Dorsiflexion to the plane of the sole].

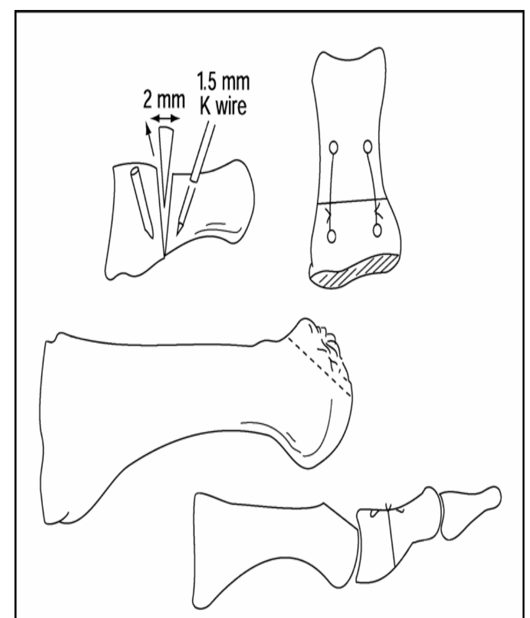
The arthrodesis is stabilized by means of an inter-fragmentary compression screw inserted from the plantar medial aspect of the base of the proximal phalanx into the lateral aspect of the metatarsal neck.

## OSTEOTOMY OF THE PROXIMAL PHALANX

A dorsal closing-wedge osteotomy of the proximal phalanx and Cheilectomy.

Indication: Type I or II with decrease dorsiflexion of the I MTP

Memory staples can be used




**Outcome of HR surgery** [Coughlin]:

80 had undergone a cheilectomy, 30 had arthrodesis

97% had a good or excellent subjective result