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Morton's neuroma - Summary

Have I got the right topic?

How up-to-date is this topic?

Goals and outcome measures

Background information

Diagnosis

Management

Scenario: Management

Treatment - primary care

Referral

Treatment - secondary care

How this topic was developed

References

Supporting evidence

Morton's neuroma

Last revised in June 2010

Scenario: Management

Scenario: Management of Morton's neuroma

Age from 16 years onwards

Treatment - primary care

How should I treat Morton's neuroma in primary care?

- Advise the person:
 - To avoid high heels, and shoes with a constricting toe box or thin soles.
 - To use a metatarsal pad:
 - These are available over-the-counter.
 - The pad should be placed just proximal to the area of tenderness to reduce pressure from the nerve.
 - If used incorrectly these will have no effect and may make the condition worse, in which case a metatarsal dome orthotic may be tried. This requires referral to an orthotist – see [Referral](#).
- Supinatory insoles are not recommended.
- Nonsteroidal anti-inflammatory drugs are generally not recommended for the treatment of Morton's neuroma.

Basis for recommendation



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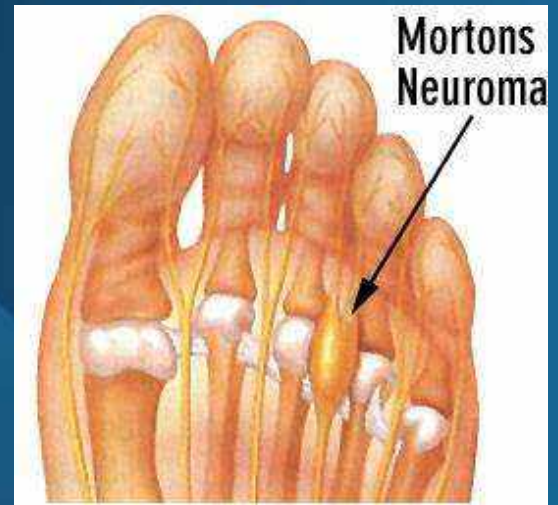
- Physical therapies

- Ultrasound, electrical stimulation, whirlpool and massage Nunan 1997
- NSAID's;
- Manipulation Cashley 2000;
- Cryotherapy Cashley 2000;
- Sclerosing injections Dockery GL 1999.
- Orthoses. Kilmartin 1994
- Met Domes Bhatia 2020

- The evidence base for using these interventions for this common condition is **currently weak**.

- Cocharane review

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SO WHAT NOW ?



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- Cushion the area
- Steroid injections
- Surgical excision.

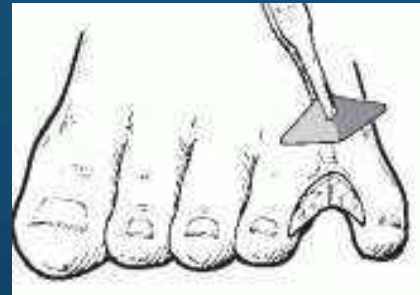
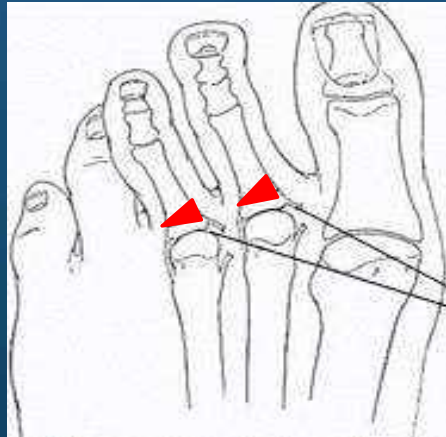
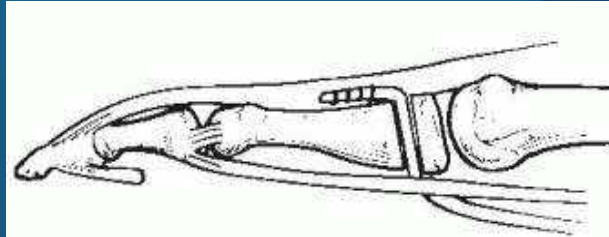
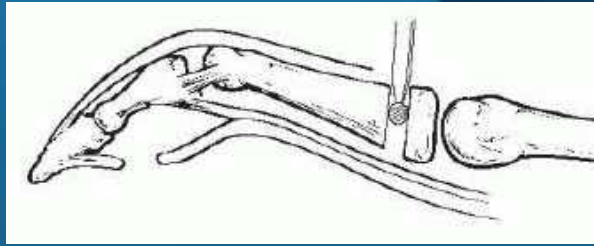


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Digital deformities







PLANTAR PLATE TEAR

Pebble sensation
Attenuation of Joint capsule
Sudden subluxation

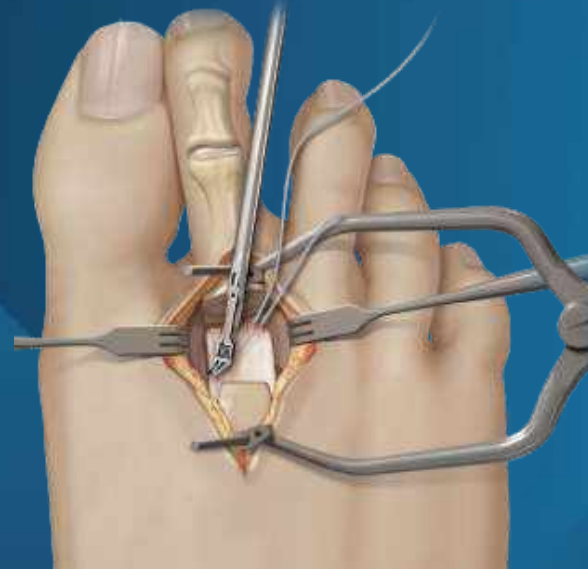
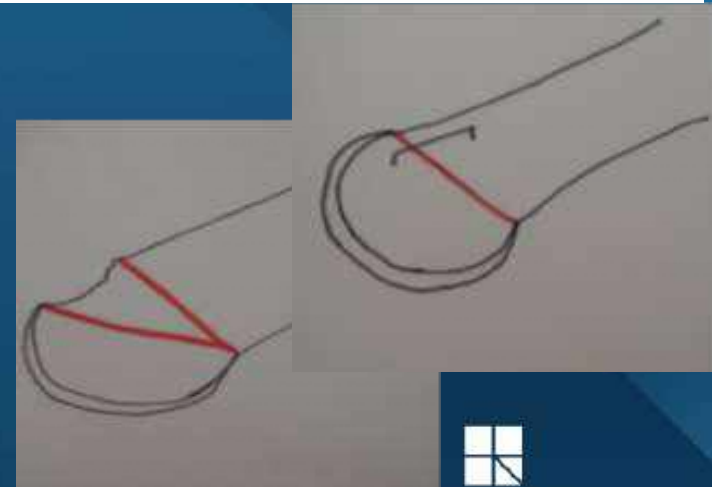


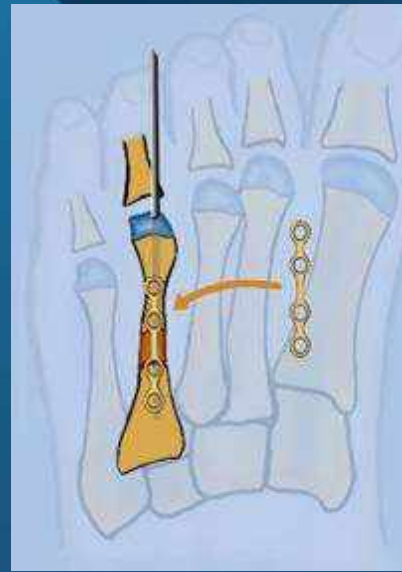


Table 1. Smillie Classification System⁹

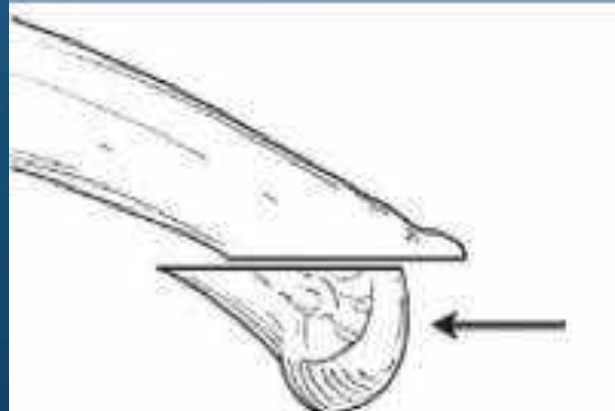
| | |
|----------------|---|
| Stage 1 | Not visible on radiographs, fissure of the articular cartilage on the metatarsal head |
| Stage 2 | Resorption of the central aspect of the metatarsal head |
| Stage 3 | Progressive central metatarsal head resorption with formation of medial and lateral metatarsal head projections |
| Stage 4 | Loose bodies are present |
| Stage 5 | Flattening of the metatarsal head and arthrosis |



PARABOLA ISSUES



Brachy-metatarsal



Bunions - Hallux Abducto Valgus Deformity





Mild –Moderate HAV



Severe HAV Lapidus



Hallux Valgus surgery via Minimal Incisions

NHS
National Institute for
Health and Clinical Excellence

Understanding NICE guidance

Information for people who use NHS services

Treating bunions using surgery through small incisions

NICE 'interventional procedures guidance' advises the NHS on when and how new procedures can be used in clinical practice

This leaflet is about when and how surgery through small incisions can be used in the NHS to treat people with bunions. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence).

Interventional procedures guidance makes recommendations on the safety of a procedure and how well it works. An interventional procedure is a test, treatment or surgery that involves a cut or puncture of the skin, or an endoscope to look inside the body, or energy sources such as X-rays, heat or ultrasound. The guidance does not cover whether or not the NHS should fund a procedure. Decisions about funding are taken by local NHS bodies.

What has NICE said?

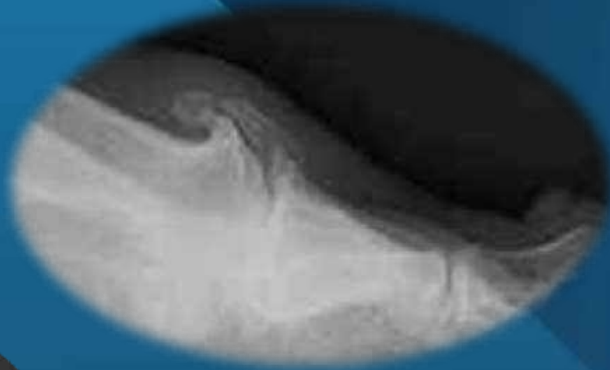
There is not much good evidence about how well this procedure works or how safe it is. In addition the evidence is inconsistent and covers many different techniques. If a doctor wants to use this procedure, they should make sure that extra steps are taken to explain the uncertainty about how well it works, as well as the uncertainty surrounding potential risks. This should happen before the patient agrees (or doesn't agree) to the procedure. The patient should be given this leaflet and other written information as part of the discussion. There should also be special arrangements for monitoring what happens to the patient after the procedure.

NICE has encouraged further research and may review the procedure if more evidence becomes available.

Treating bunions using surgery through small incisions

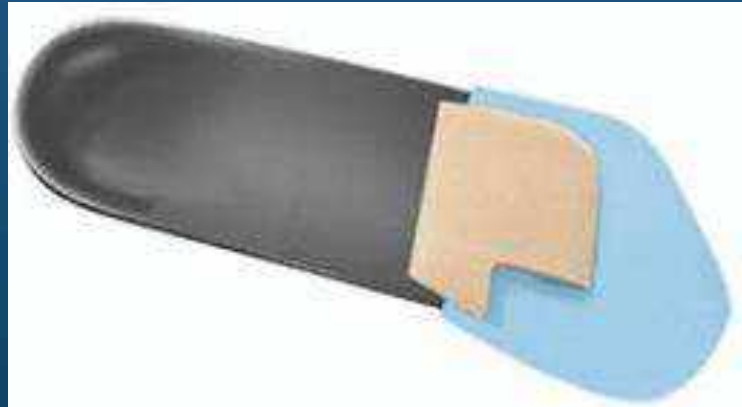


Hallux Rigidus / Osteoarthritis

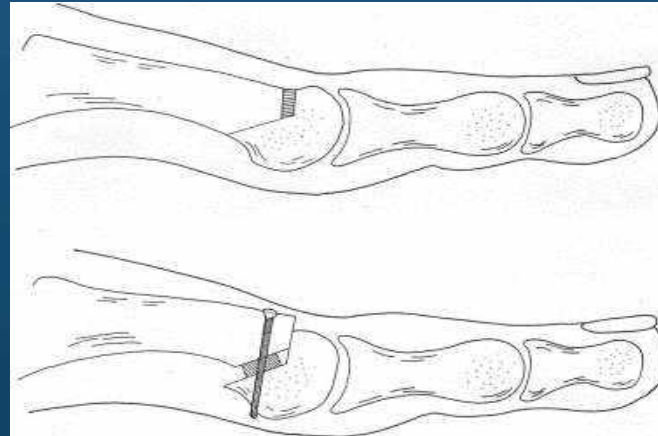
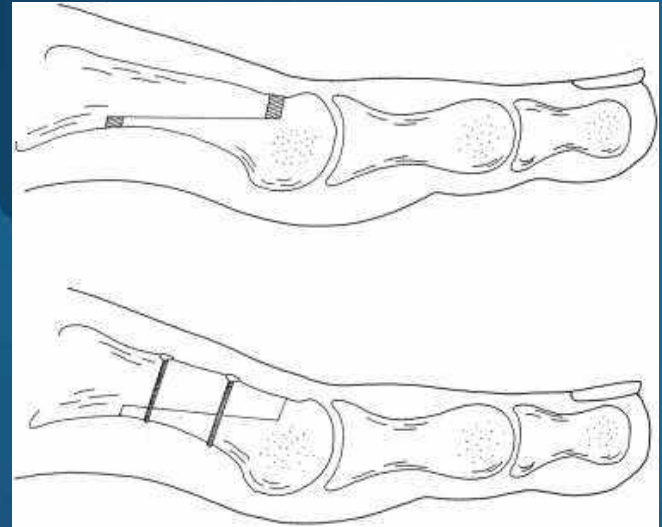




Options



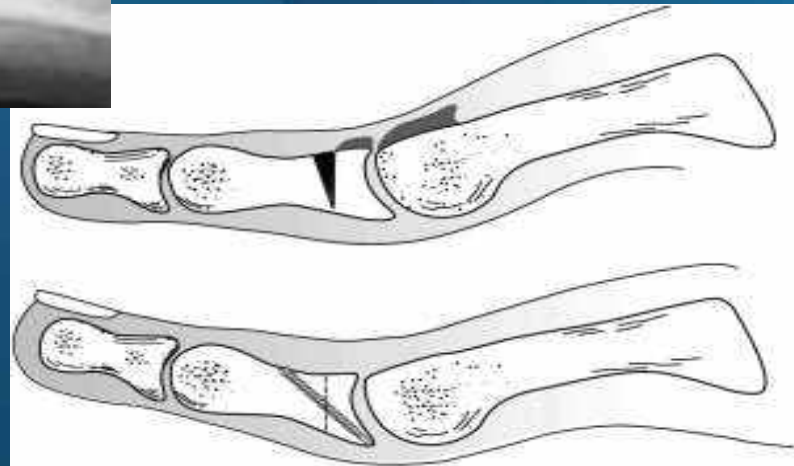
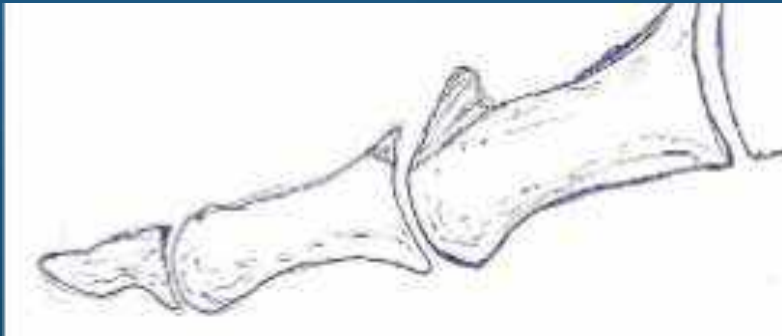
Decompressive Metatarsal Osteotomies



ARTHRITIC BONE SPUR



Cheilectomy or Kessel Bonney



Hallux Rigidus

Maintains motion within the joint
Early mobilisation



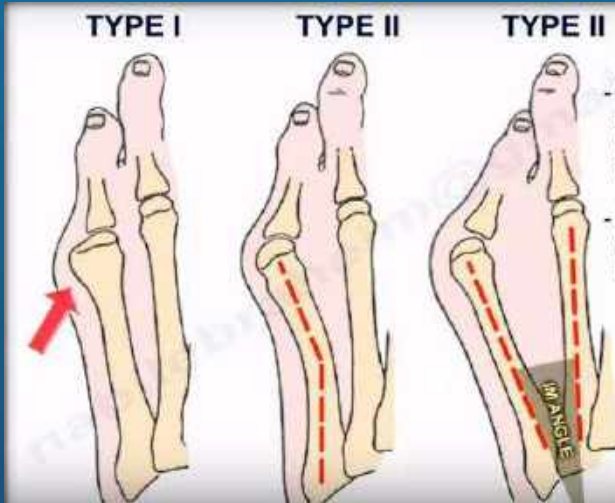


1st MTP joint Fusion

Early mobilisation in heel walker



5th Metatarsal Bunionette



Iselin Disorder

Close 12-14 years



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Avulsion #
Peroneal tendon



Jones #
Very difficult to
heal

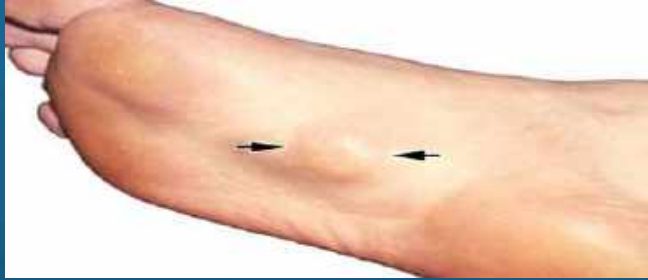
Fixation very long
recovery (pain)



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Plantar Fibromatosis

Chronic trauma /Fibrous changes



Foot Orthoses. Press on the bump

Steroid injections
Rupture

Verapamil patch (Calcium channel blocker)
Fibro blast release requires calcium
inhibits Collagen production
Caution contact dermatitis

Radiation therapy
Retards Fibroblastic activity
IRMER

ECSWT
Limited documented evidence

Orthop Res Rev 2019; 11: 1–7.
Published online 2018 Dec 17. doi: [10.2147/ORR.S154289](https://doi.org/10.2147/ORR.S154289)

Achilles Tendinosis

Trauma (ballistic forces)

Chronic degenerative changes

Inflammatory arthropathies

Attenuation of tendon

Chronic insertional Enthesitis

Fluoroquinolones Antibiotics

Ciprofloxacin; Moxifloxacin; Levofloxacin

Haemophilus Influenzae

Sinusitis / Otis media

Chlamydia



 GOV.UK

[Home](#) > [Drug Safety Update](#)

Fluoroquinolone antibiotics: new restrictions and precautions for use due to very rare reports of disabling and potentially long-lasting or irreversible side effects



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Steroid injections

Cochrane review 2015

18 studies, 732 patients

Steroid injection into a tendon is contra-indicated

Ohberg & Alfredson 2002

U/S guided injection into the neo-vascularisation

80% “cured” at 6/12 follow-up

Sclerotic therapy

Prolotherapy (sugar water) BJSM 2017

Quicker healing when used in concert with Eccentric loading

GTN Veno-dilatation J Bone Joint Surgery 2008 RCT small cohort

Limited benefit

PRP (Platelet Rich Plasma)

ECSWT AOFAS Vol 41 ;4 2020 RCT small cohort Limited benefit

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Tendons



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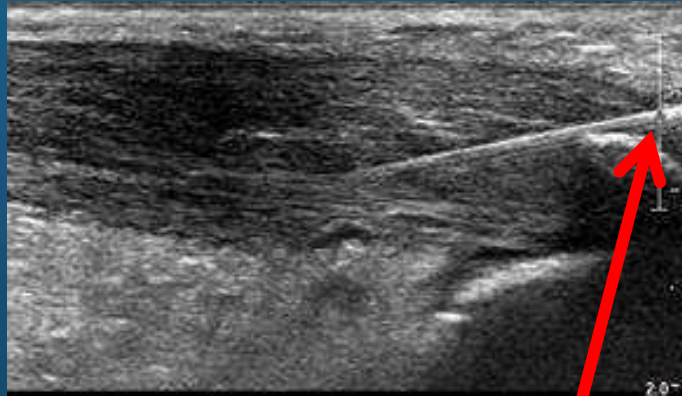
Physiotherapy

82% full return Alfredson eccentric loading compared to 36% with concentric. Silbernagel et al 2001 Alfredson et al 1998

- Orthotics;
 - Heeled shoe, insole (wedge)/ heel lift; Heel pads
- Non-operative management is 65 - 90% successful



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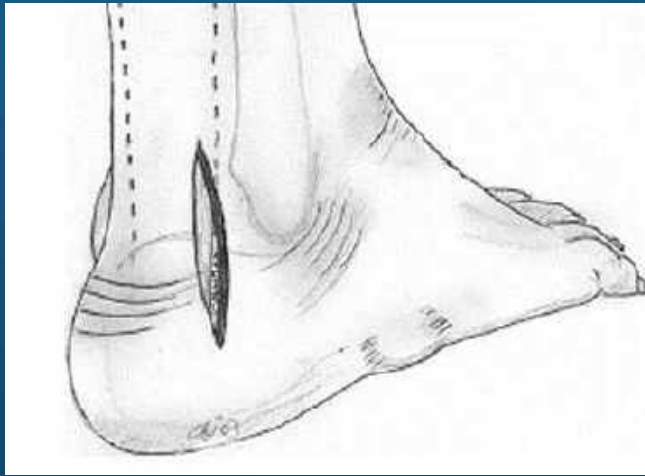


U/S guided high-volume injection into the neo-vessels of tendinosis

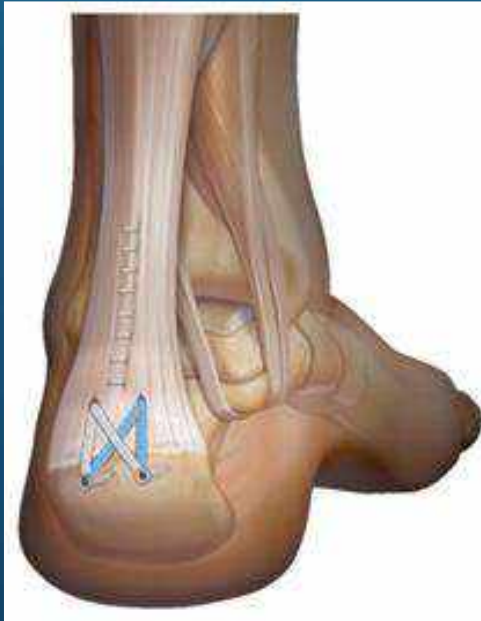


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Haglund's deformity



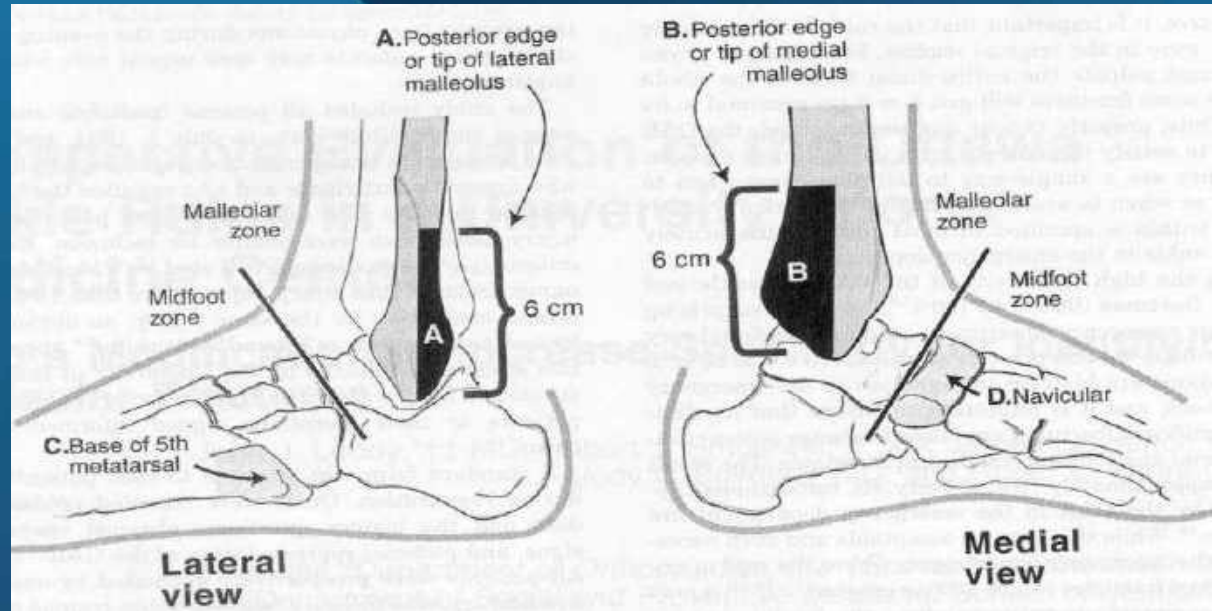
Achilles Insertional Calcification



Ankle injuries

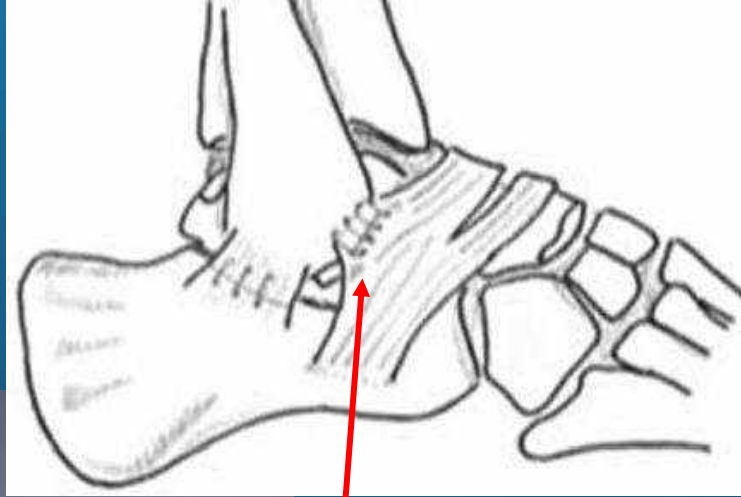
OTTAWA CRITERIA:

do we need an x-ray ?



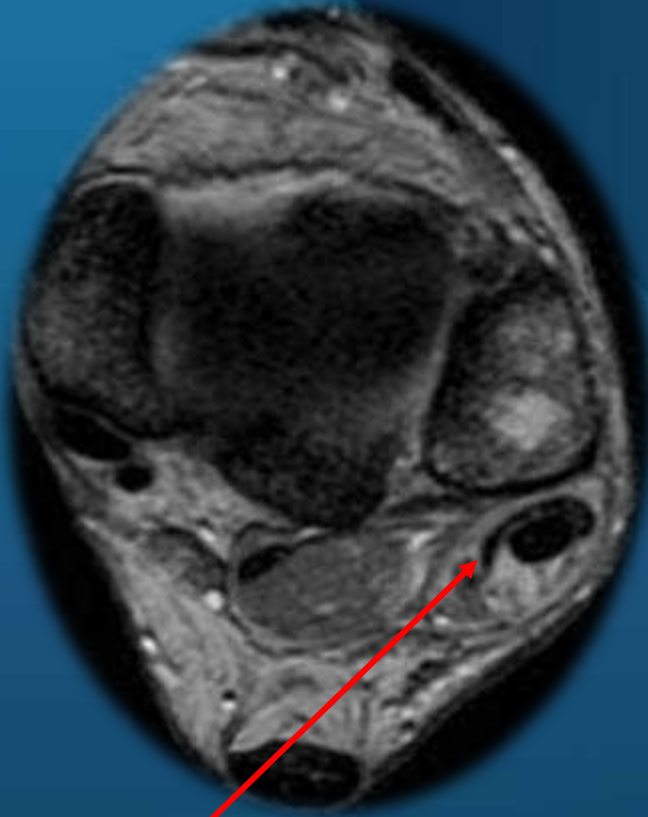
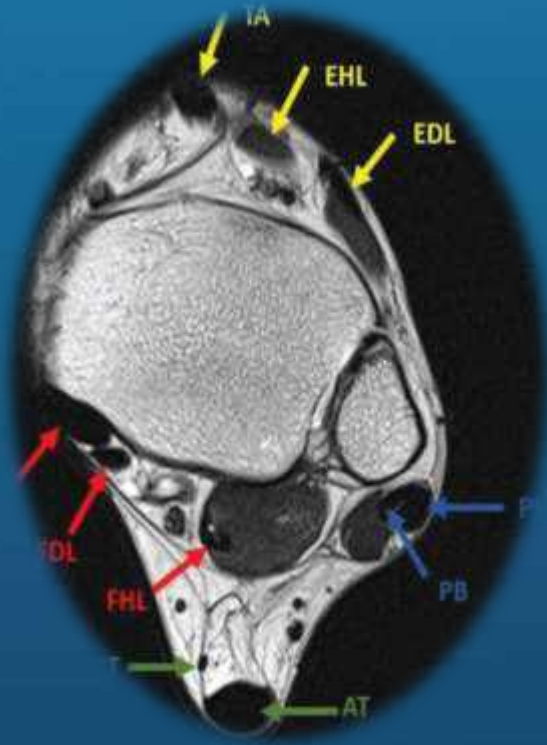
- Non-weightbearing after injury or in emergency dept/clinic
- Tenderness over malleoli (posterior ½ lateral malleolus), talus, calcaneus
- Inability to ambulate 4 steps

Anatomical
repair



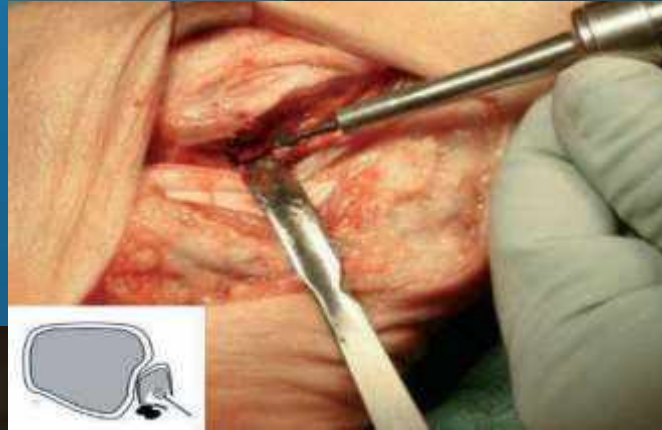
Ankle internal Brace
Augments anatomical
repair Increases ability
to rehabilitate sooner



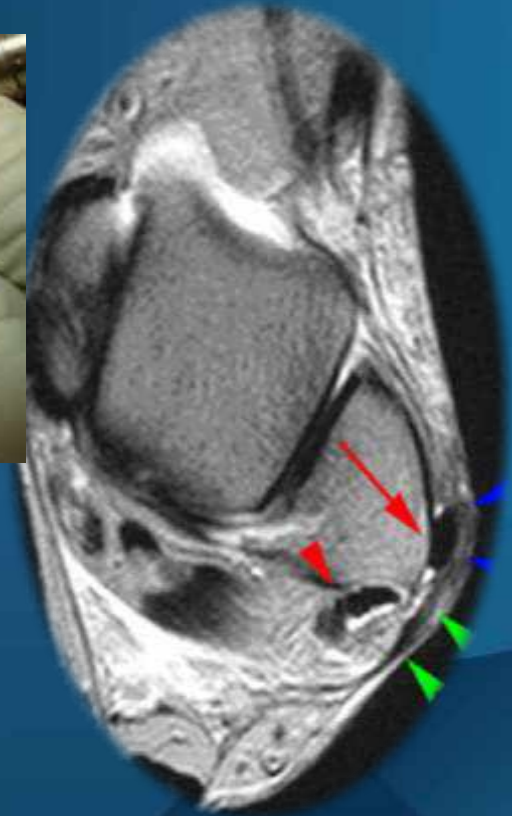


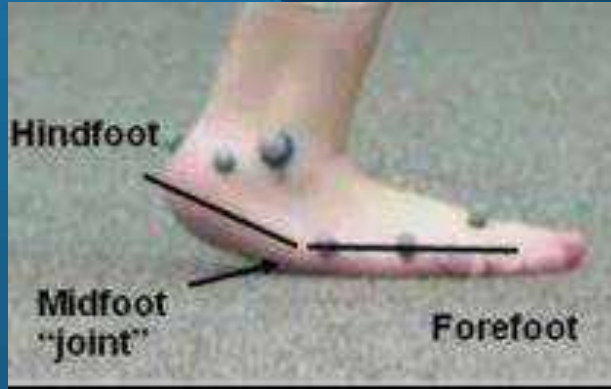
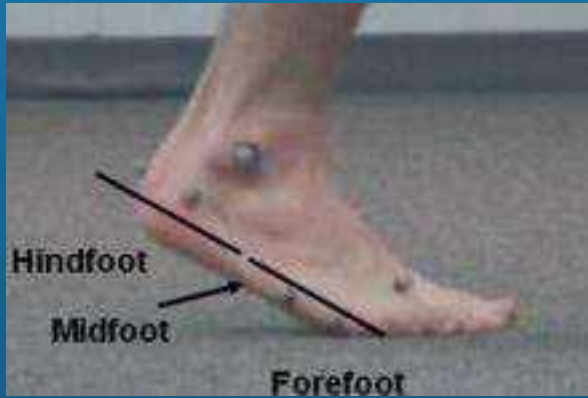
Classic 'C' shape
around peroneal longus
"Tear"

Peroneal Subluxation (Ruptured peroneal retinacula)



- Relatively rare
- Ankle dorsiflexion & eversion
- Seen in skiers, rugby players
- Visible subluxation
- Audible “snapping”
- Moderate/severe inversion tearing of peroneal retinaculum
- Eversion against resistance replicates subluxation





Pes Planus
Sagittal Plane dominance



Tri planar deformity

Too many toes

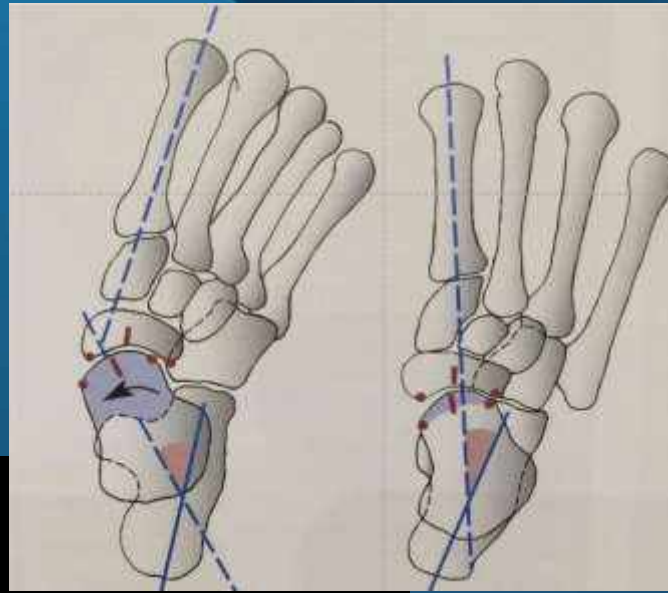
Everted rearfoot

Medial displacement osteotomy

Evans Calcaneal opening wedge osteotomy
with graft

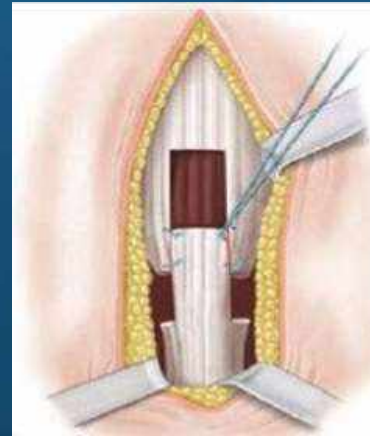
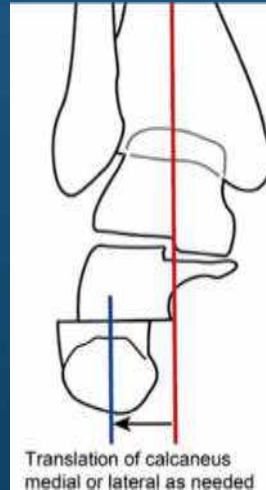
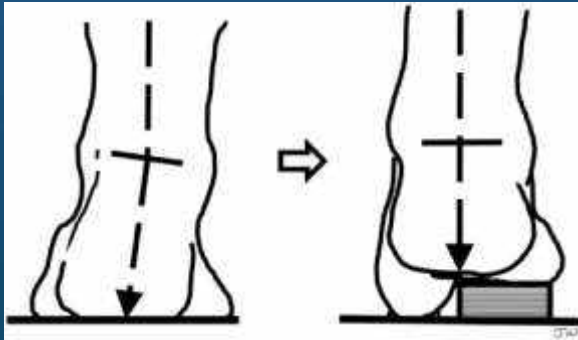
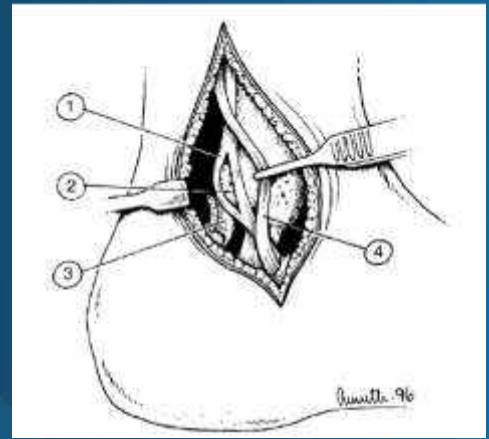
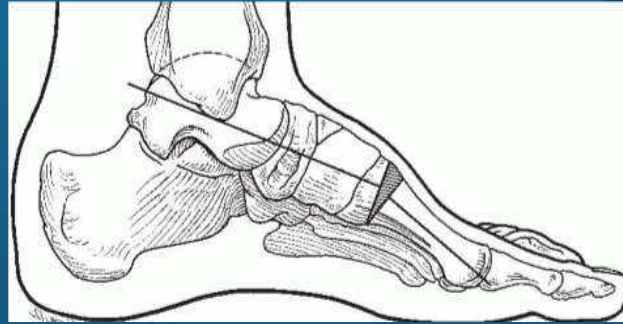
Posterior tibialis plication/reefing

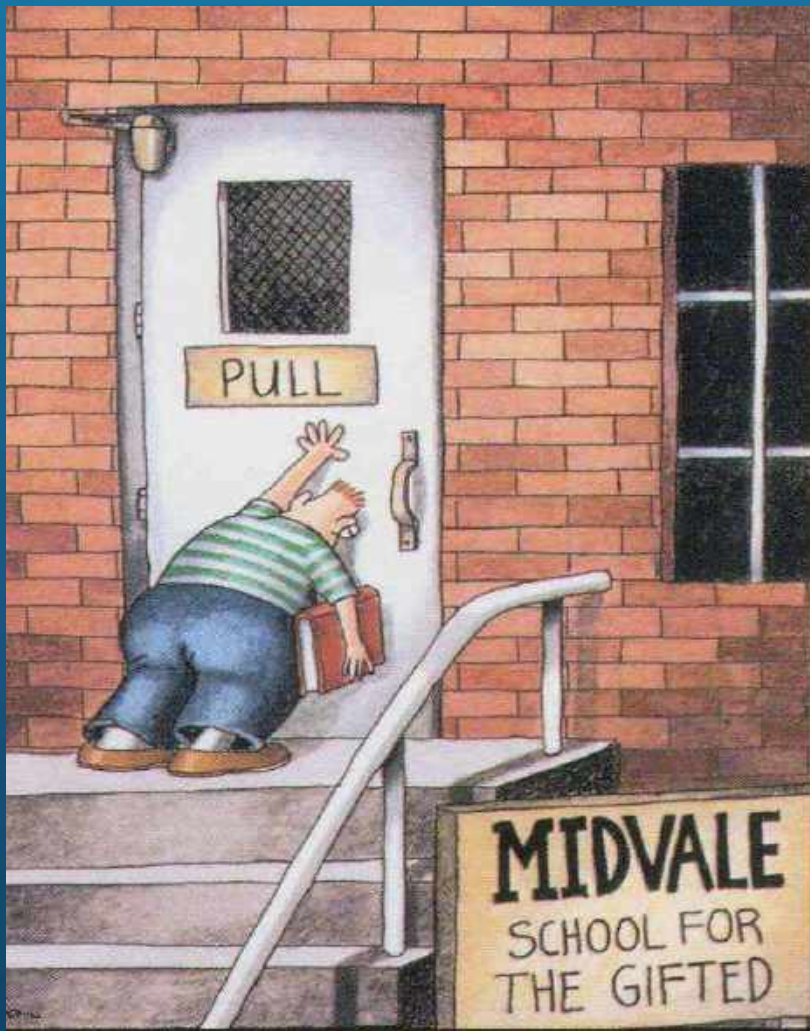
Spring ligament repair





Pes Cavus





Thank you listening

Any Questions ?



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