

## 6. FOOT HISTORY

**Pain:** Walking, Running

Foot wear problem

**Swelling;** tingly feeling

**Deformity**

**Stiffness**

**Disability:** At work; recreation; night; walk; ADL, Sports

Previous Rx

Comorbidities

Smoke, Sugar, Steroid

Do not forget to examine: Shoes, Hip and spine

## A.INSPECTION

### GAIT

Heel to toe [any delay in heel raise]

Antalgic or not

Foot drop present or not

Foot progression angle

Stride length



## STANDING

### Examination from the front

The deformity of the great toe and lesser toe

### Comment on arch

Cavus                      Exaggerated arch

Flatfoot                      No arch is flat foot

### Comment on

Skin Vascularity

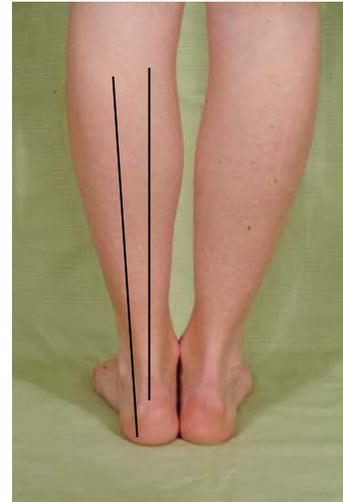
Scar

Engorged veins.

Size of the foot [In clubfoot, small foot]

### **Examination from the back**

- Heel : normal valgus angle 5°
- Comment on Calf wasting
- Look for any scar
- Look for “too many toe sign” as in tibialis  
Posterior dysfunction
- Dysfunctional syndrome



### **TIP TOE SIGN**

- Double tip toe sign
- To compare heel inversion on standing tip toe
- Arch of the foot get accentuated

Indicator of subtalar mobility



### **SINGLE LEG TIP TOE STANCE**

- Can use hand for support
- Normal: Foot goes to neutral or varus on standing
- In tibialis posterior dysfunction: Patient cannot  
stand single leg tiptoe or heels remain valgus



## **TIBIALIS POSTERIOR DYSFUNCTION**

Excessive hindfoot valgus  
Patient cannot stand tip toe  
Too many toe signs



## **FLATFOOT**

Look for whether arch is formed by  
Dorsiflexion of the great toe or  
standing tiptoe

In flexible flatfoot: Arch forms

In rigid flatfoot: Arch is not formed by  
dorsiflexion of the greater toe



## **COLEMAN'S TEST FOR CMT**

Relies on tripod effect

Initial deformity is in the forefoot in CMT foot

Test determines whether the hindfoot deformity  
is flexible or fixed

### **Test**

Examiner places the lateral border and heel on the  
block [1.5 cm] while the first through III Metatarsal  
are suspended off the block.

On weight bearing, the hind foot goes into valgus  
or neutral means Hindfoot deformity is flexible

If the hindfoot remains in varus means hindfoot is  
fixed.



If a varus hindfoot is correctible, then surgical management will be centred on the forefoot. If the heel is found to be rigid, however, a concurrent hindfoot osteotomy or arthrodesis may be required to correct the deformity.

## II SITTING

Examination of the sole for callosities  
Make patient sit on the couch  
Feel the Dorsalis pedis artery  
Also comment on shoe wear.



## B. PALPATION

Systematic palpation from medial to lateral side. Check ten

Medial malleolus

Tibialis posterior

Inferior Tibio femoral joint

Lateral malleolus

Sinus tarsi

ATFL [anterior talo fibular]: commonest ligament involved in ankle sprain]

Peroneal tendon

Tendo Achilles

Plantar fasciitis [common cause for heel pain]

## C. MOVEMENT

### a. Ankle dorsiflexion and plantar flexion

Normal: Dorsiflexion 20°

Plantarflexion 45°

Patient seated

Support the hind foot with the cup of hand Stabilize the proximal tibia

Ankle in neutral.

Now dorsiflex and plantarflex the ankle



## LANGENSKIOLD'S TEST

Dorsiflexion of the ankle with flexed knee and extended knee

Foot should be neutral to valgus and varus

When Dorsiflexion limited with knee flexion and extension:

Means both Gastro and soleus tight.

When Dorsiflexion limited with knee flexion but not with knee in extension

Means only gastrocnemius tightness. Selective tightness is common in cerebral palsy]



## Hindfoot: inversion and eversion

Hind foot is held by one hand

With examiner's other hand stabilize the leg

Ankle in neutral position

Inversion 20 ° and eversion 10 °



Eversion



## Inversion



### **c. Midfoot movement**

Examiner stabilizes hind foot  
The forefoot adduction and abduction  
with the opposite hand

ROM: 10-15°

### **d. Big toe**

**Metatarsophalangeal joint of great toe**

Dorsiflexion 80°

Plantarflexion 45°

**Interphalangeal joint**

Dorsiflexion 5°

Plantarflexion 90°

## SPECIAL TESTS

### MUDLER'S CLICK

The examiner grasps the heads of the first and fifth metatarsal heads  
Compresses them together  
Fingers at the web space  
Pain may be elicited  
In 40% click may be felt  
Positive in Morton's neuroma  
Neuroma of the III common digital nerve

### ANTERIOR DRAWER TEST

Anterior Talo fibular ligament integrity.[ATFL]  
Patient sitting, foot off the ground,  
Knee in flexion  
Examiner stabilized the leg and heel with other hand  
Foot is drawn anteriorly

Test is positive: when 5mm translation more than opposite side or 10 mm translation

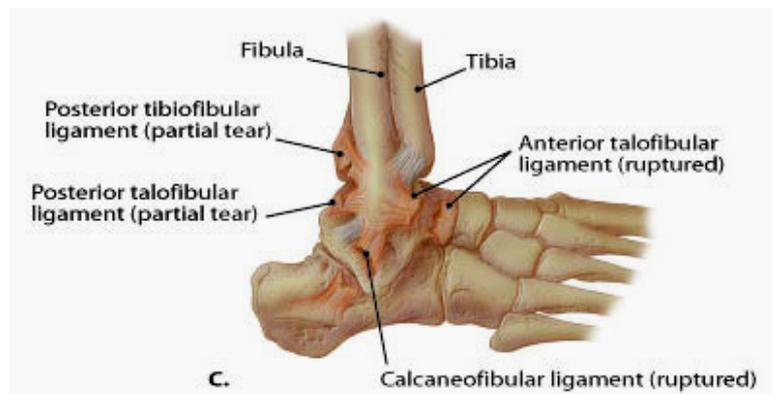


### VARUS TEST

ATFL and CFL : both ligaments should be torn for positive test

#### Test

Ankle in neutral with examiners hand over the forefoot Inversion strain:  
Normal ankle, Calcaneo- fibular ligament is tightened and no further inversion is possible at the ankle.[with ankle in neutral to dorsi and plantar flexion]  
Positive when excessive inversion is positive when both ATFL and CFL are disrupted  
In Mortise view: 15° of Talar tilt or 5 ° more tilt than normal side is significant.



## Stress x rays



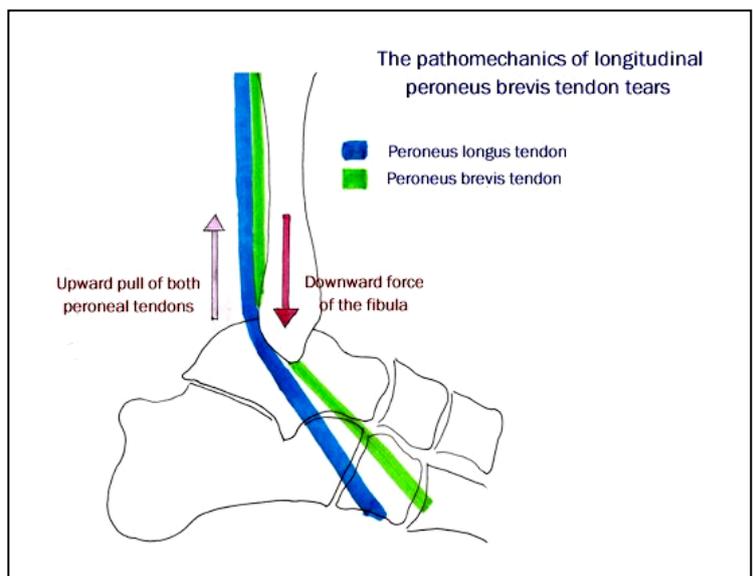
## SUBLUXATING PERONEAL TENDON

Active test

Eversion and Dorsiflexion to inversion  
and plantar flexion

Repeated movement

Feel the posterior border of the fibula



## THOMPSON'S OR SIMMOND'S TEST

TEST FOR Achilles integrity

In prone position, leave ankle free

Now squeeze the calf

Ankle Plantar flexion on squeezing calf is  
normal outcome

Absence of Plantar flexion on squeezing  
means there is loss of Achilles integrity



### **TIBIALIS POSTERIOR MUSCLE TEST**

Plantar flexion and inversion of the foot and now resistance is given examines both tibialis anterior and posterior.

To isolate action of tibialis posterior, tibialis Anterior is eliminated by modifying test to have the patient begin the test in the everted position

