


**Trimalleolar Fractures: What Gets Fixed and How?**



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**Disclosures**

- Nothing

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**Trimalleolar Ankle Fractures**

- What makes them Different
- What is the Goal
- Increased Energy Involved
- Rotational

**Operative Case**



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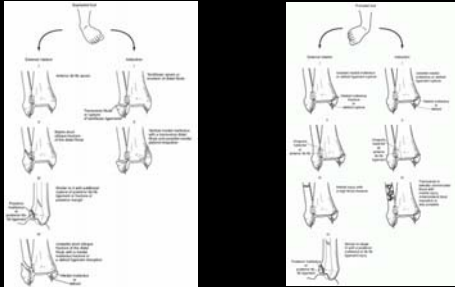
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## Lange Hansen Classification



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## Does Size Matter?

- 25% articular Surface ?
- Who Knows : 5% -33%

- **Nelson & Jenson 1940:**
  - Good Result 33% with Sx
- **McLaughlin 1957:**
  - Bad Result 25% Closed Tx

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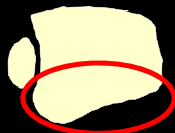
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## Posterior Pathology

- Bone
- Ligament



Haraguchi Classification

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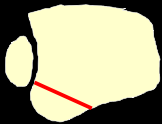
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## Posterior Malleolous

### • Haraguchi Classification



Type 1  
Lateral  
Wedge

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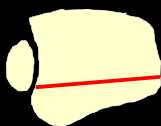
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## Posterior Malleolous

### • Haraguchi Classification



Type 2  
Medial  
Mall Ext

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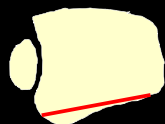
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## Posterior Malleolous

### • Haraguchi Classification



Type 3  
Shell

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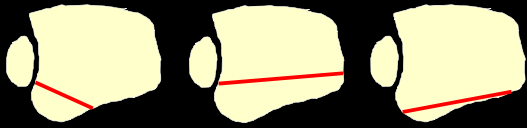
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## Posterior Malleolus

- Haraguchi Classification



Type 1  
Lateral Wedge

Type 2  
Medial Mall Ext

Type 3  
Shell

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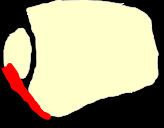
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## Posterior Pathology

- Malleolus
- Ligament



Posterior-Inferior Tibiofibular Ligament  
PITFL

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## Approaches

- Lateral
- Medial
- SUPINE
- Posterolateral
- ± Medial
- PRONE



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## Posterolateral

- Flexor Hallucis Longus
- Peroneal Muscles



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## Case 1



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## CM

- 51 M
- Cocaine/ EtOH
- Out at Club
- Prior Ankle Injuries
- No Prior Sx



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### Injury Films



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### Closed Reduced in the ED



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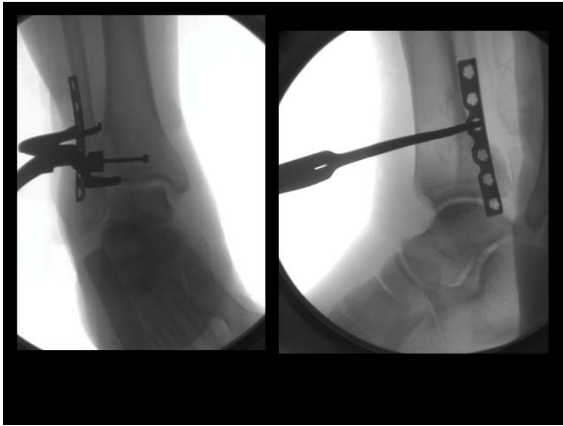
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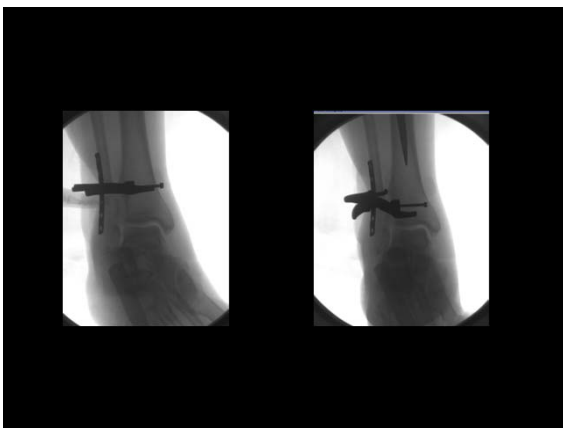
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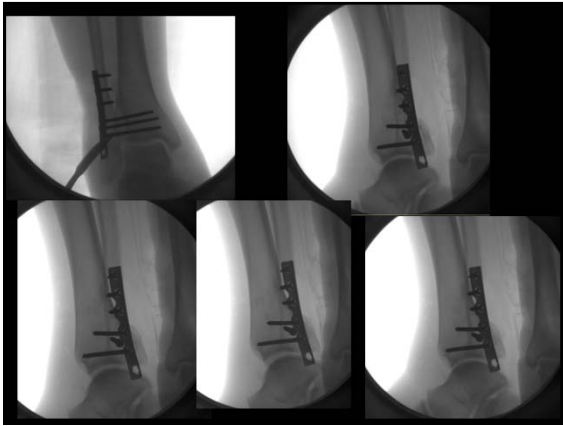
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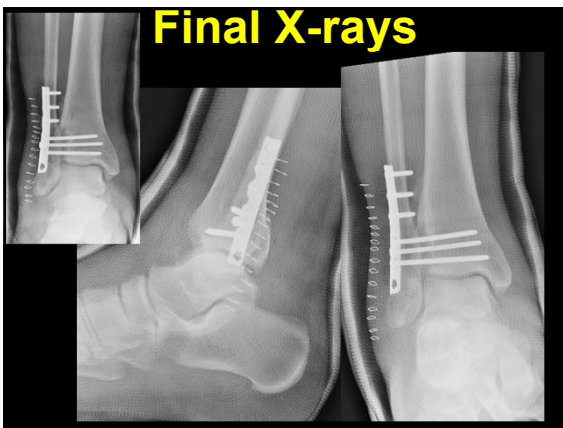
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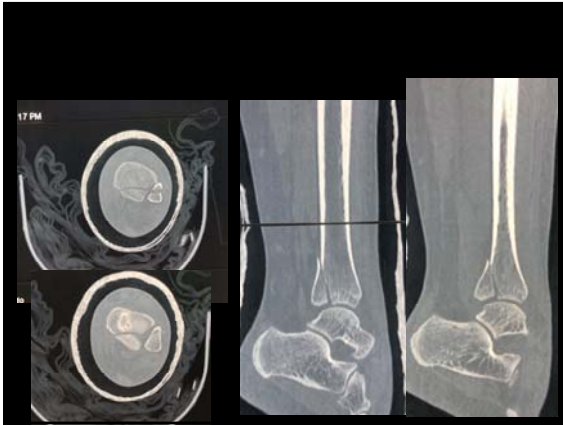
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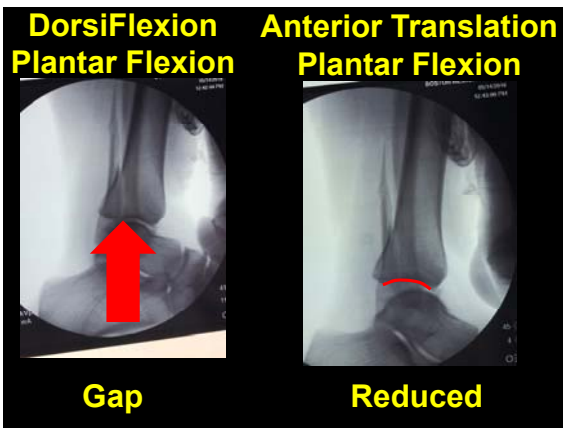
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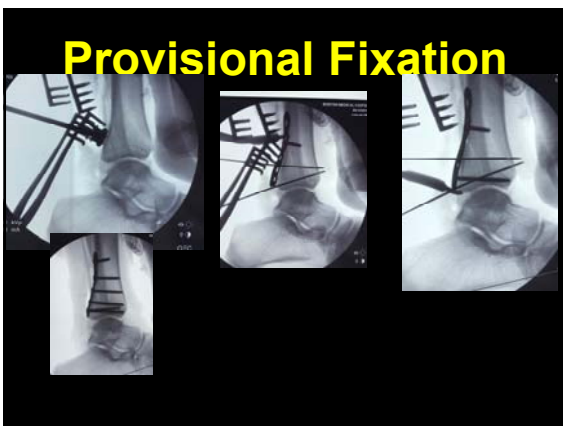
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**Restore Joint Mechanics**

- Congruity
- Stability
- Minimize Edge Loading
- Normalize Contact Forces

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