



Low Energy Pilon Fractures: What Should I Do?

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Mechanism

- Axial compression
- Shear
- Rotatory & bending forces
- Fracture pattern depends on position of foot and direction of applied force
- MVA & fall



AO (OTA) Classification

- **Type A (43-A)**
– Extra-articular
- **Type B (43-B)**
– Partial articular
- **Type C (43-C)**
– Complete articular

	A	B	C
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•			
•			

Staged Protocol

Sirkin, 1999	Patterson, 1999
56 Pilon	22 C3 Pilon
Immediate fibular ORIF with ankle spanning external fixation	Average 24 days to ORIF
Average 12.7 - 14 days to ORIF	73% Anatomical reductions
1.8% wound dehiscence	No Infections
3.6% infection	

Open and Closed Fractures

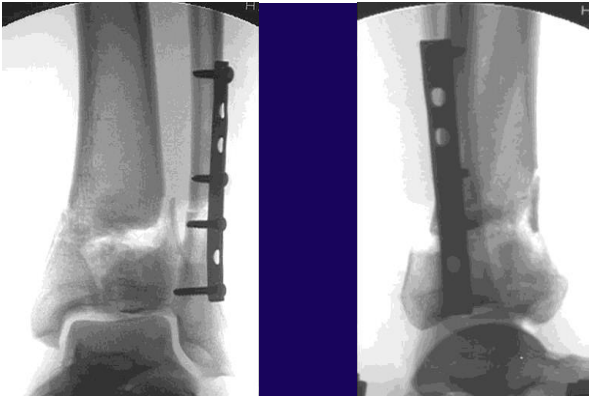
Goals of Early Stabilization

- Restoration of skeletal length and alignment
- Span joint and allow soft tissues to stabilize
- Distraction x ankle joint
- Align talus beneath tibia
- Align posterior cortex
- ORIF fibula if feasible









Stabilize Distal Fibula?

- Aid in reduction
- Restore part of ankle mortise
- Anatomic reduction of fibula & distal tib/fib joint

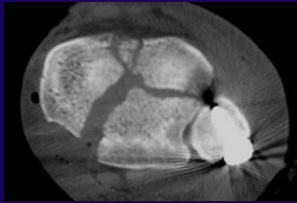
CT Scan (Tometta CORR 96)

- Critical part of preoperative planning
- Better understanding of articular fragments
- Should be done after spanning exfix



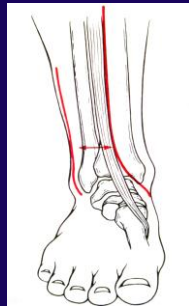
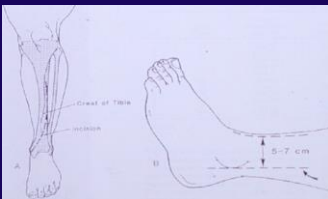
Surgical Approach

- Medial
- Anteromedial
- Anterolateral
- Posterolateral

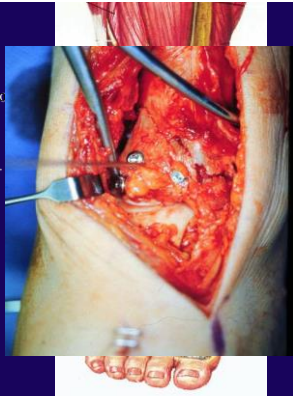


Surgical approach dictated by injury & mechanically appropriate location of fixation

Incision



- Stay medial to tendon of tibialis anterior
- Extensor retinaculum incised
- Anteromedial capsulotomy
- External Fixator or Femoral Distractor for Direct articular visualization





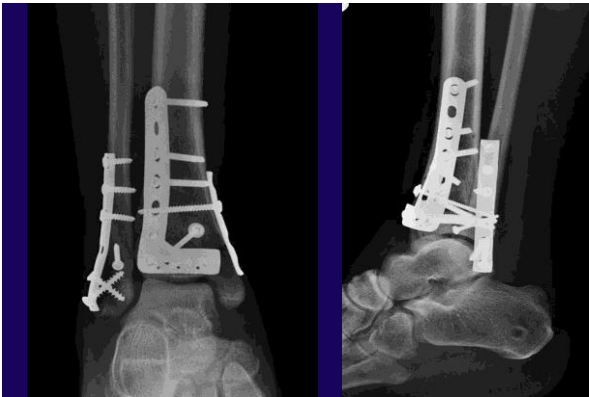
Anterolateral Approach

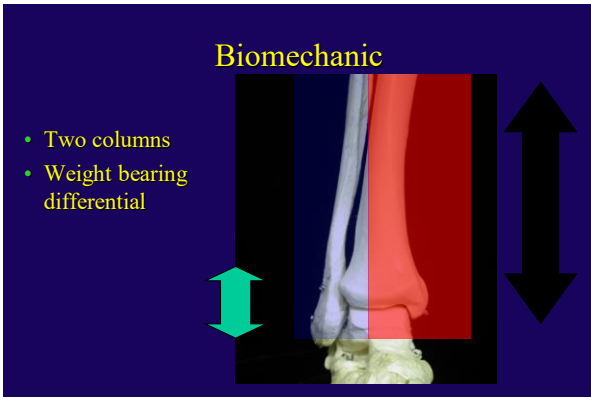


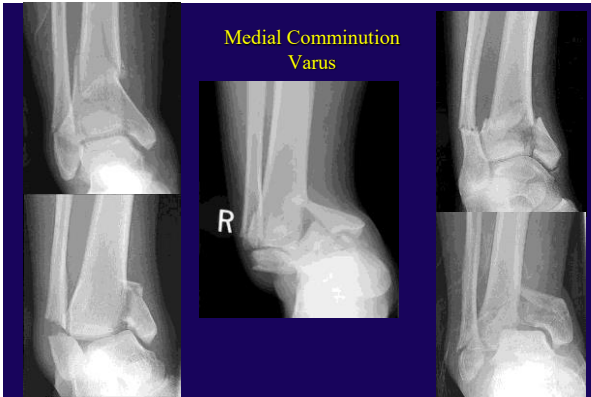
Anterolateral Approach

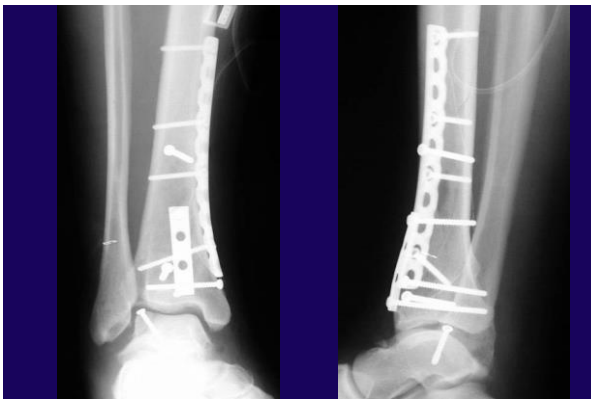


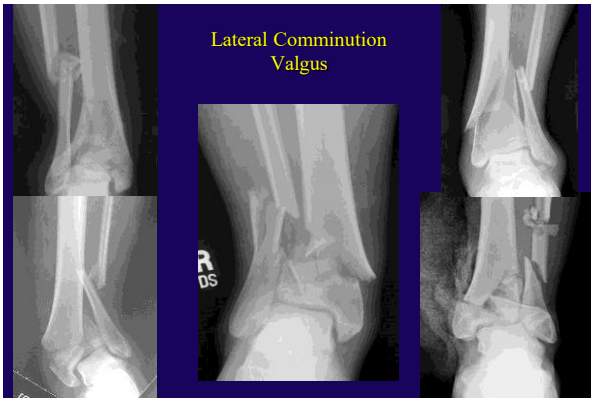


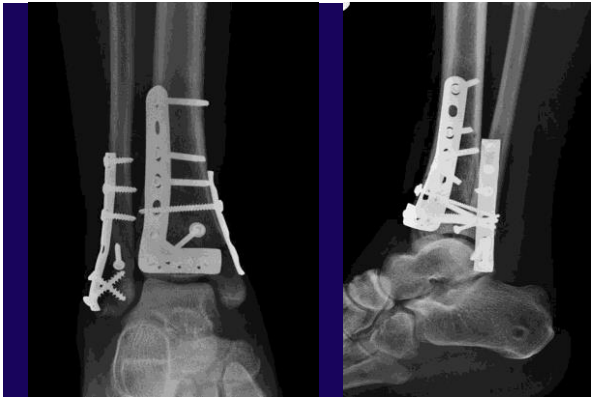


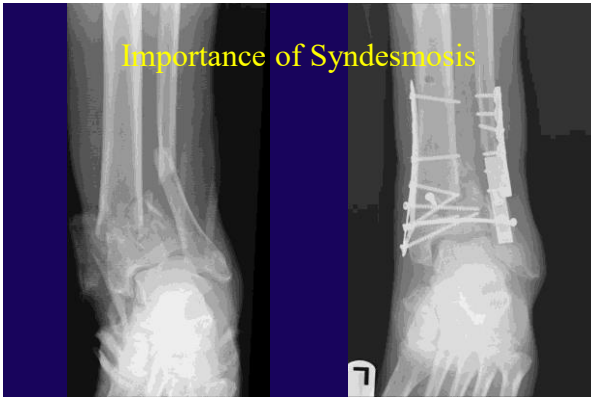










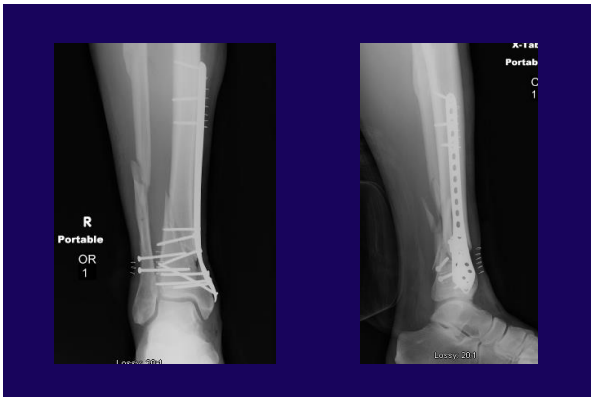


Percutaneous Plating – Early if Minimal Swelling









Postop Care

- Layered closure
- Immobilize and elevation
- Initiate ROM at 2 – 3 wks after sutures are removed
- Toe-touch weight bearing 12 wks

Simple Pilon

- Respected Soft Tissue
- Consider Staged Protocol
- Fix fibula to restore length and augment fixation
- Fracture specific surgical approach
- Fixation – resist deforming forces

