

The 'Simple' Posterior Wall Fracture of the Acetabulum

*D Templeman MD
University of Minnesota
Minneapolis, Mn*

Overview of Posterior Wall Fractures :

Historical Context - Indications

- Letournel – Big enough to accept a screw
- Caukins & others: CT scanning for diagnosis
- Moed/Tornetta III Stability & EUA

Outcomes:

About 30% do poorly long – term; and about 30% of patients have marginal impaction. Other 'presumed factors' include age >40; femoral head fractures/scuffing; multi-fragmented wall fractures; superior wall fractures; late reductions; associated nerve injuries.

Moed:

| Clinical Outcomes | | Plain Films | | CT | |
|-------------------|-----|-------------|-----|------------------------|-----|
| Excellent | 46% | Excellent | 79% | Gap 2mm. | 77% |
| Very Good | 30% | Good | 6% | Incongruity | 16% |
| Fair | 5% | Fair | 3% | Gap >35mm ² | |
| Poor | 10% | Poor | 10% | Gap > 10mm | |

Problems that you will encounter:

- Missed subluxations
- Nerve Injuries
- Skin Problems
- Morbidly Obese
- Incarcerated Fragments
- Associated Femoral Head Fractures

Technical Problems with Fixation

- Reduction
- Plate positioning and contouring
- Lag-screws
- Spring Plates

Marginal Impaction and the Acetabular Depression Fracture

- Reduction concepts

Graft Materials for reconstruction

Postoperative Problems

DVT

Heterotopic Bone

Non-compliance

[J Bone Joint Surg Am](#). 2008 Mar;90 Suppl 2 Pt 1:87-107. doi: 10.2106/JBJS.G.01471.

Outcomes of posterior wall fractures of the acetabulum. Surgical technique.

[Moed BR](#), [McMichael JC](#).

[J Bone Joint Surg Am](#). 2003 Mar;85-A(3):512-22.

Computed tomographic assessment of fractures of the posterior wall of the acetabulum after operative treatment.

[Moed BR](#), [Carr SE](#), [Gruson KI](#), [Watson JT](#), [Craig JG](#).

[Clin Orthop Relat Res](#). 1994 Aug;(305):47-52.

Surgical revision of malreduced acetabular fractures.

[Mayo KA](#), [Letournel E](#), [Matta JM](#), [Mast JW](#), [Johnson EE](#), [Martimbeau CL](#).

[J Bone Joint Surg Am](#). 2012 Sep 5;94(17):1559-67.

Two to twenty-year survivorship of the hip in 810 patients with operatively treated acetabular fractures.

[Tannast M](#), [Najibi S](#), [Matta JM](#).

[J Bone Joint Surg Am](#). 2005 Jul;87(7):1498-502.

Body mass index as a predictor of complications after operative treatment of acetabular fractures.

[Karunakar MA](#), [Shah SN](#), [Jerabek S](#).