

## **Operative vs Non-operative Treatment of Humeral Shaft Fractures**

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- **High success rate with splint, cast, brace**
- **Intrinsically good natural history for healing**
- **Certain specific operative indications (IM nail, plate)**
  
- **Literature controversial re: op vs nonop**
  - **Mahabier et al, Injury 2013**
    - **186 pts: no diff**
  - **Denard et al, Orthopaedics 2010**
    - **213 pts: less nonunions and malunions with ORIF**
- **No RCTs**
- **Gold standard is still functional bracing**

### **Specific operative indications:**

- **floating elbow / shoulder**
- **polytrauma**
- **bilateral humeral fractures**
- **pathological fractures**
- **open fractures**
- **vascular injury**

### **Associated radial nerve palsy**

- **Natural history of radial palsy in closed #'s good:**
- **No evidence exploration improves recovery**
- **Primary repair rarely possible**

### **Meta-analysis of plate fixation vs IM nailing**

- **Plating better**
  - **Less complications, delayed unions, shoulder pain and impingement and re-operations**

### **Conclusions**

- **Functional bracing is the treatment of choice for most humeral shaft fractures**
- **In 2013, ORIF with a plate is the treatment of choice for humeral shaft fractures that require operative intervention including open #'s and multiple trauma**