

## 주관절 강직의 수술적 치료

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### Post-traumatic Elbow Stiffness

#### INCIDENCE

- 5% of all elbow injuries results in ankylosis
- Fractures-10%
- Dislocation-20%
- Fracture & Dislocation-40%
- Condylar fractures-12% of total incidence
- Stiffness related to length of immobilization & ill-informed intervention

### Post-traumatic Elbow Stiffness

#### Pathology

Intra-articular: Articular Adhesio  
 Articular Deformity  
 Extra-articular: Post & Ant Capsule  
 Osseous Bridge

### The Stiff Elbow (Common Pathology)

- Caps contracture almost always present
- Intrinsic causes usually have extrinsic contractures as well
- Altered structural & biomech. properties
- Greatly reduced joint capacity (20 ml → 5 ml)

### STIFF ELBOW

#### Indications for Surgery

- Failed conservative treatment
- > 1 year duration of contracture
- Loss of extension > 30~45°
- Flexion < 120°
- Indications after individualized

**Relationship of Major Sx to Preferred Treatment**

Dominant Symptom	Surgical Treatment
Loose body	Arthroscopy
Extension loss	
Mild	Arthroscopy / Column
Moderate	Column
Flexion loss	Column
Impingement pain	Ulnohumeral Arthroplasty
Ulnar nerve symptom	Ulnohumeral Arthroplasty
Extensive motion loss	Total Elbow Replacement
Pain full arc: age > 60	Total Elbow Replacement

**THE STIFF ELBOW****Etiology**

"Always" - mixed

"Never" - just osseous

"Adhesions" Last to go: open

First to go: ascope

Beware: adhesions avulse cartilage

**Surgical Technique****"COLUMN PROCEDURE"****Indications**

- Marked limitation of flexion and / or extension
- Extrinsic pathology: traumatic arthritis
- Anterior contracture & / or Posterior contracture

**"COLUMN" PROCEDURE****TECHNIQUE**

- Posterior or lateral incision
- Modified Kocher lateral approach
- Elevate muscles from supracondylar ridge
- Excision of capsule(front and back)
- Limited procedure, isolated removal of impingement of little value

**COLUMN PROCEDURE****Advantages:**

- Simple operative technique

- Rapid post-op. recovery
- Early return of function
- No loss of stability
- Ability to approach both front and back

**THE STIFF ELBOW**

**BEWARE of REBOUND: LOSE: 15~20 deg, Post Op**

**Indication of UHA**

- Extensive humeral osteophyte
- Impingement pain
- Ulnar nerve symptom

**Traumatic Arthritis of the Elbow**

- Limited Interest
  - No functional position
  - High complication
  - Sepsis
  - Non-union-10%
  - Humeral fx-15%
- Ix: Sepsis, Young, High demand  
Traumatic Arthritis of the Elbow

**· INDICATIONS**

- Non-septic
- Less than 55 yrs(+/-)
- Gender: m > f