



Massive Rotator cuff Tear, Treatment options

M. N. Naderi ,MD

Fellowship in shoulder surgery
& arthroscopy

Definition

- ▶ Tear > 5 cm in its maximum diameter
- ▶ Tears of two or more of the RC tendons



for secure surgical repair

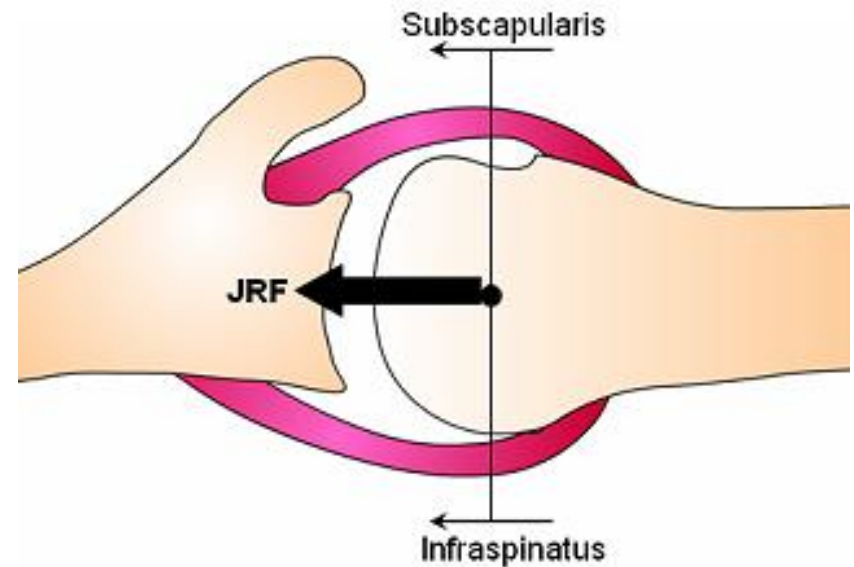
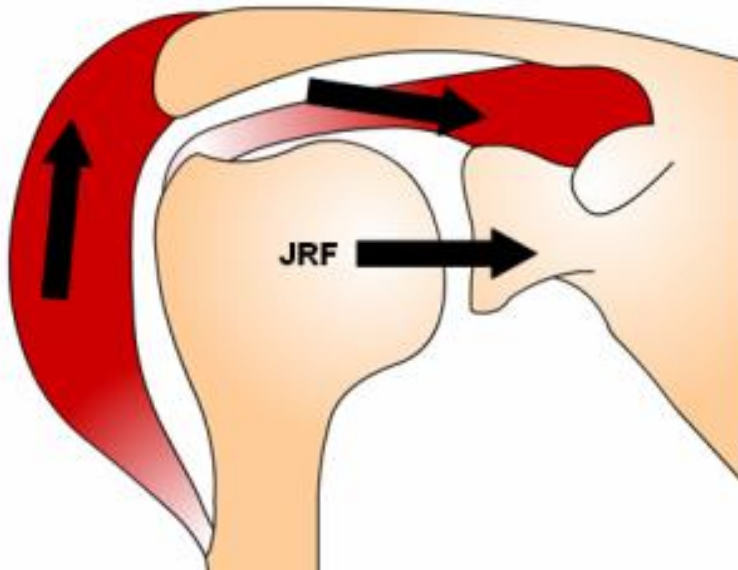
- Tissue quality
- Tear size

Clinical presentation

- ▶ Pain
- ▶ Weakness
- ▶ Reduced ROM
- ▶ Rotator cuff arthropathy

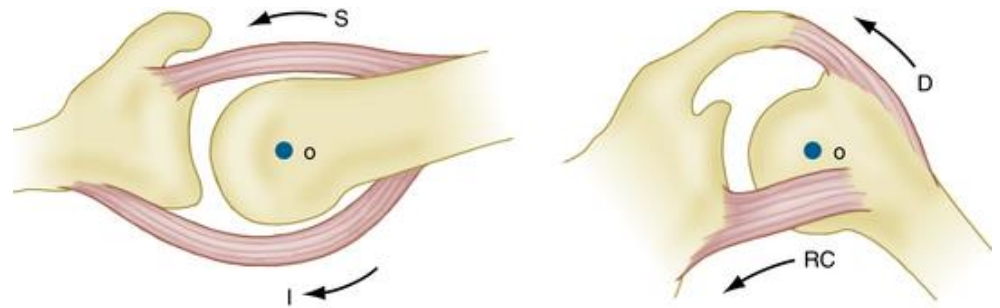
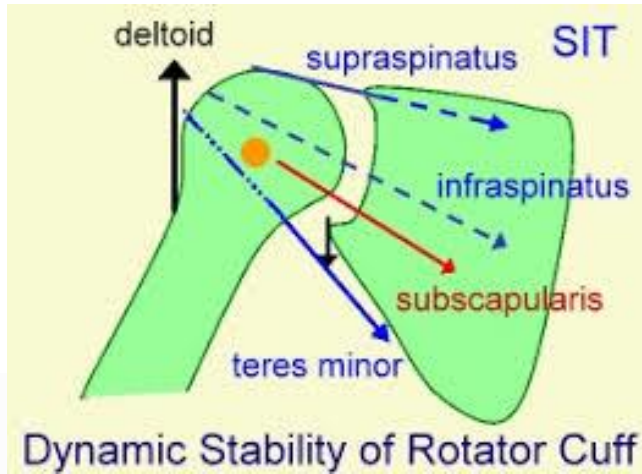


Inman's concept of "Force couples"

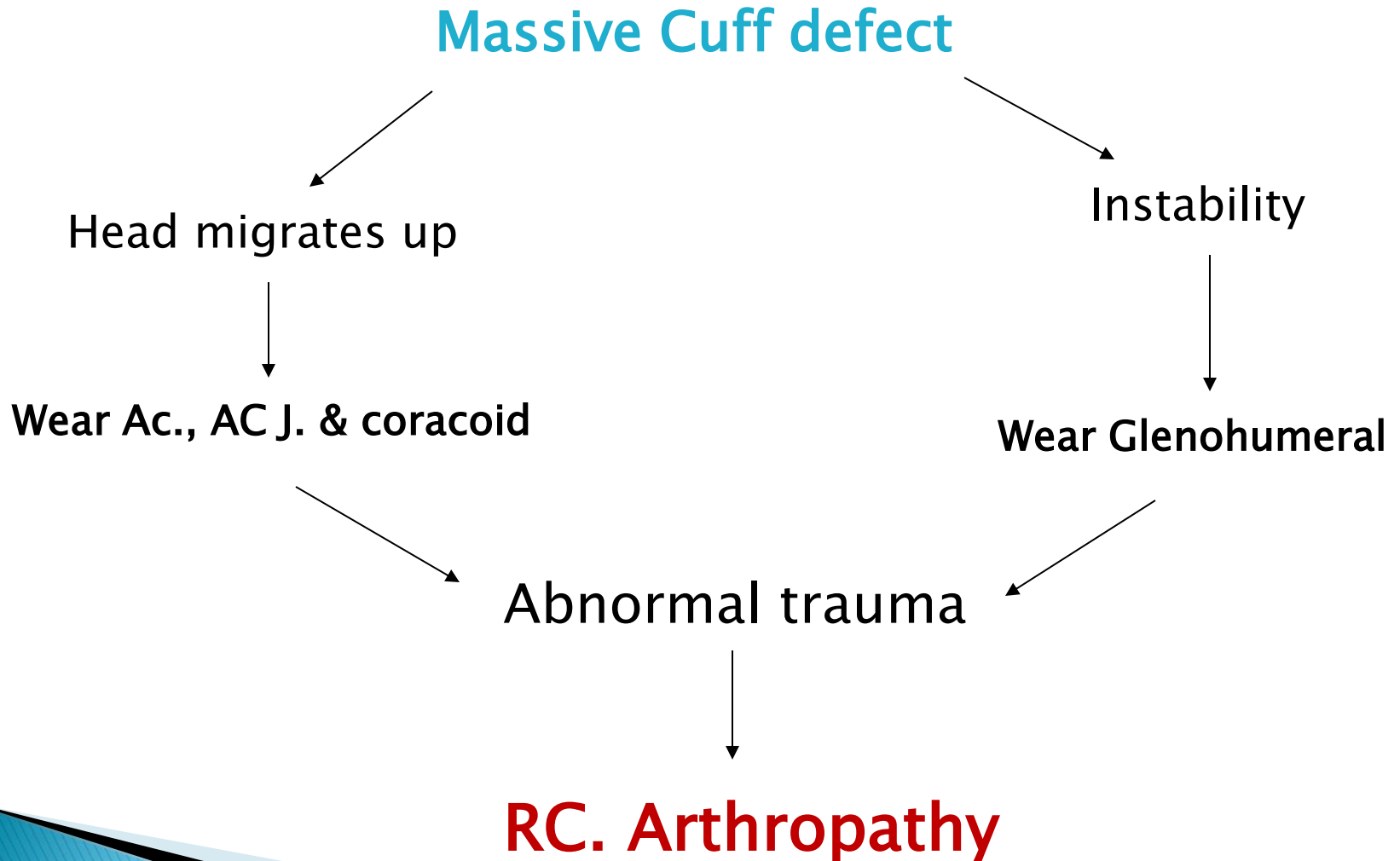


Inman VT, Saunders JBdM, Abbott LC. Observations on the Function of the Shoulder Joint. J Bone Joint Surg Am 1944;26:3.

Inman's concept of "Force couples"



Final result of untreated massive cuff tear



Diagnosis

- ▶ Physical exam
- ▶ X-ray
- ▶ Sonography
- ▶ Arthrography
- ▶ MRI



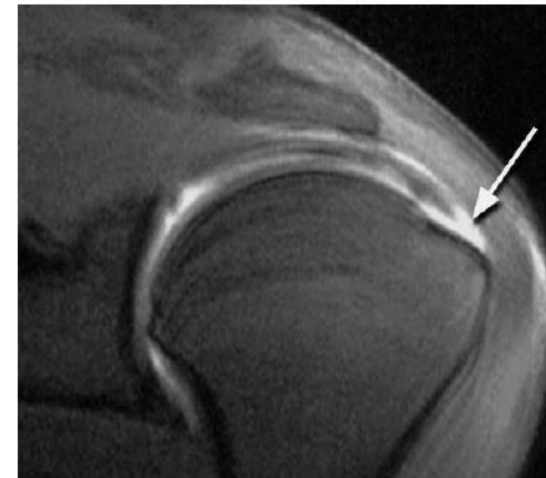
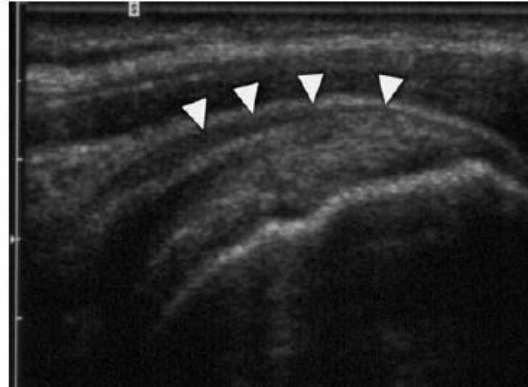
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- ▶ **X-ray**
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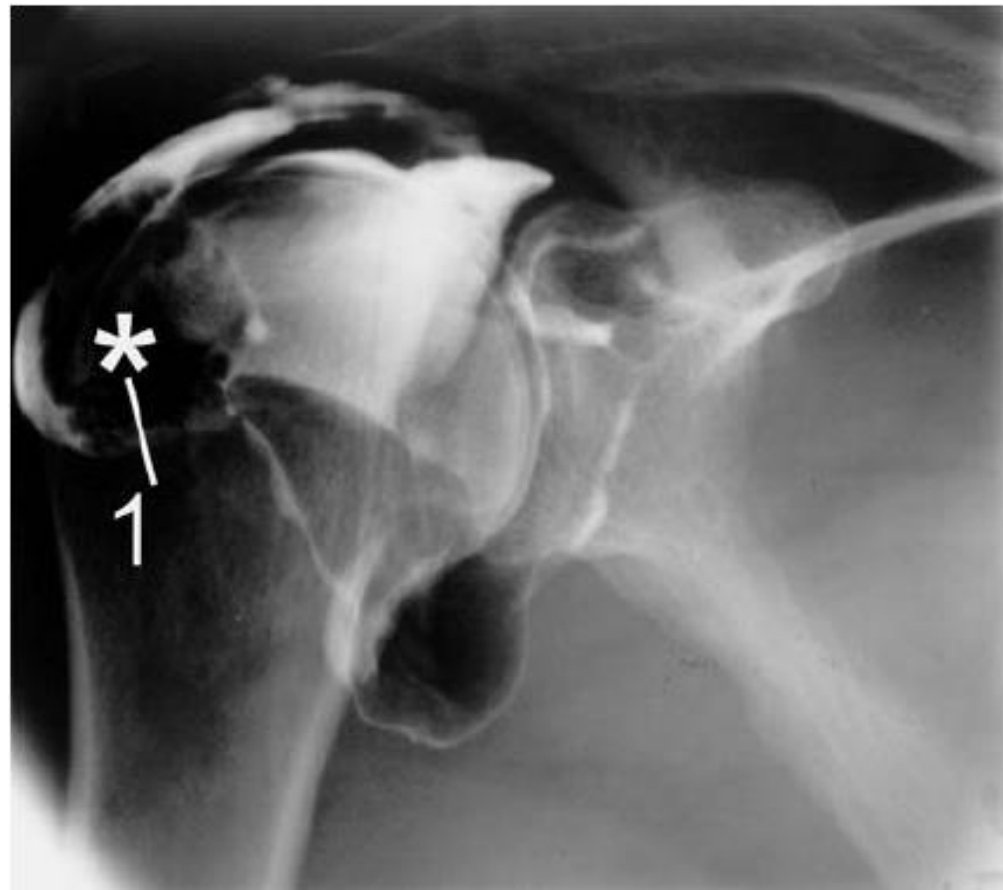
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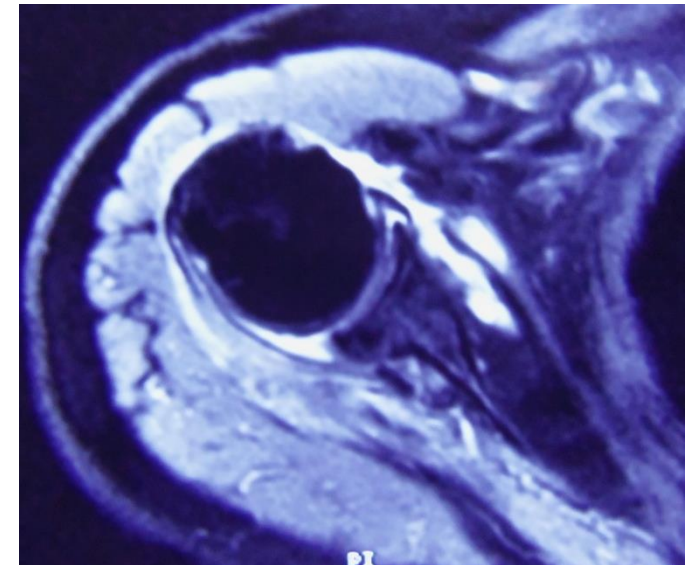
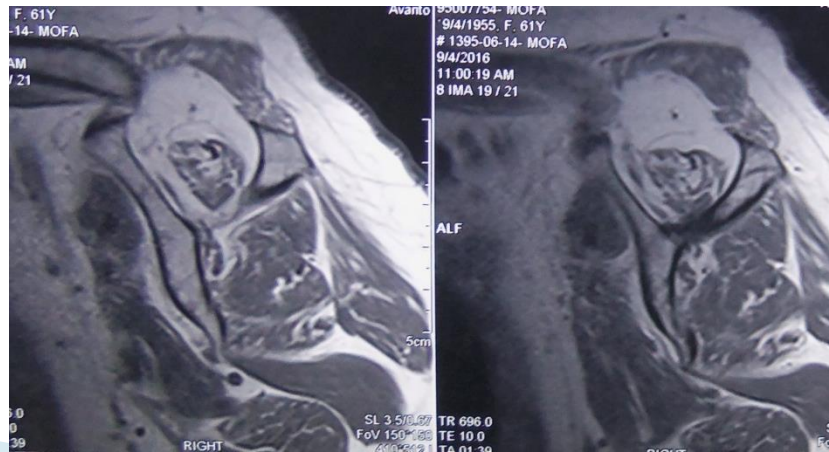
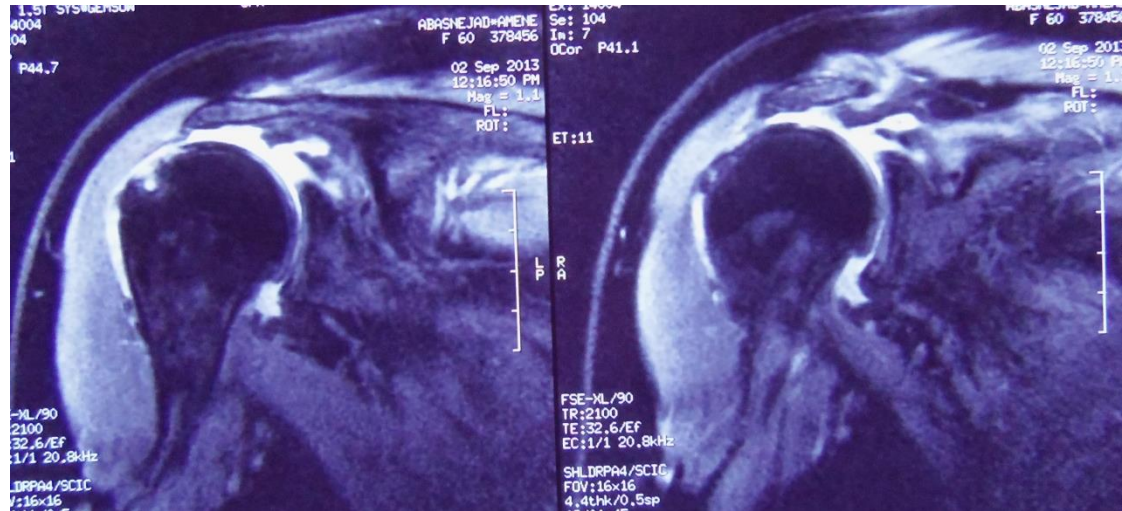
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Diagnosis

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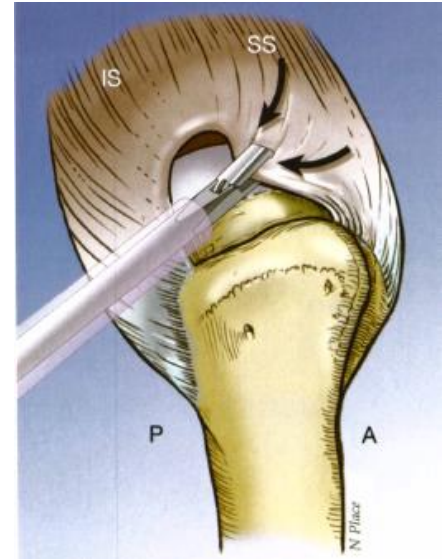
Indications for treatment



- ▶ **Pain** → principal indication for RC surgery
- ▶ **Lack of mobility & diminished strength**
→ secondary indications

Indications for treatment

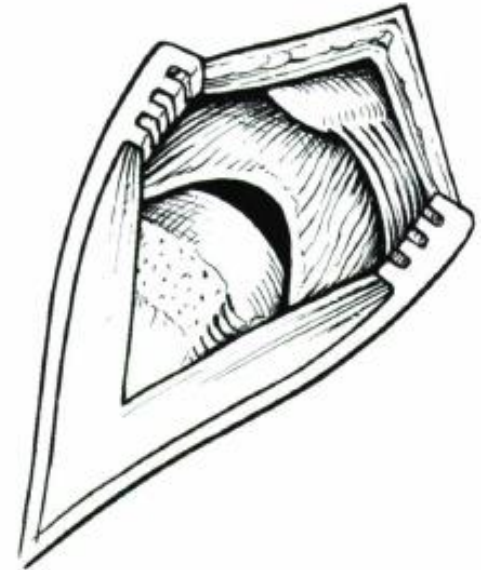
- ▶ Results of surgery are dependent on:
 - tear size
 - retraction
 - tissue quality
 - preoperative mobility
 - patient's overall health



Patients should understand their role in postoperative rehabilitation and length of time for recovery

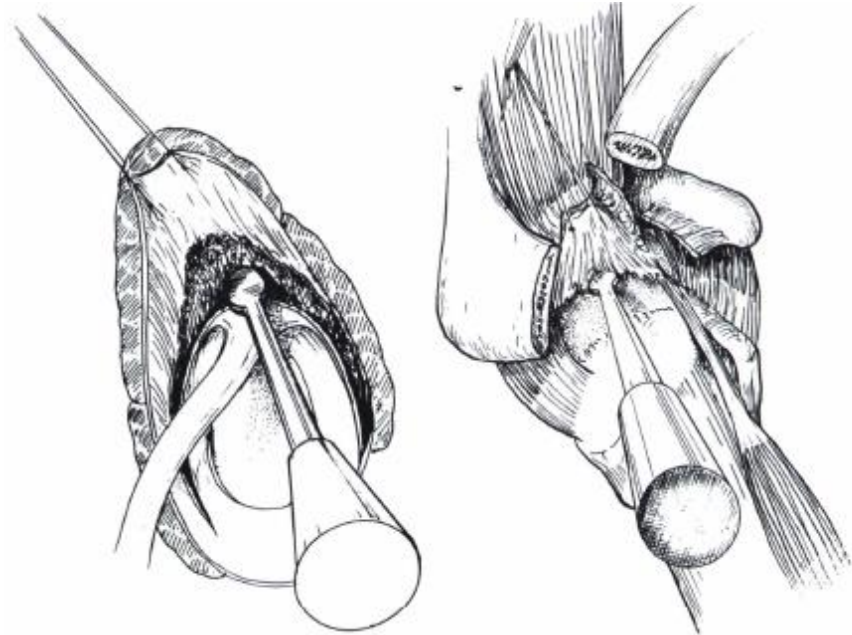
Treatment methods

- ▶ **Open repair**
- ▶ Muscle transfer
 - Subscapularis
 - Latissimus dorsi
- ▶ Arthroscopic
 - Debridement
 - Repair



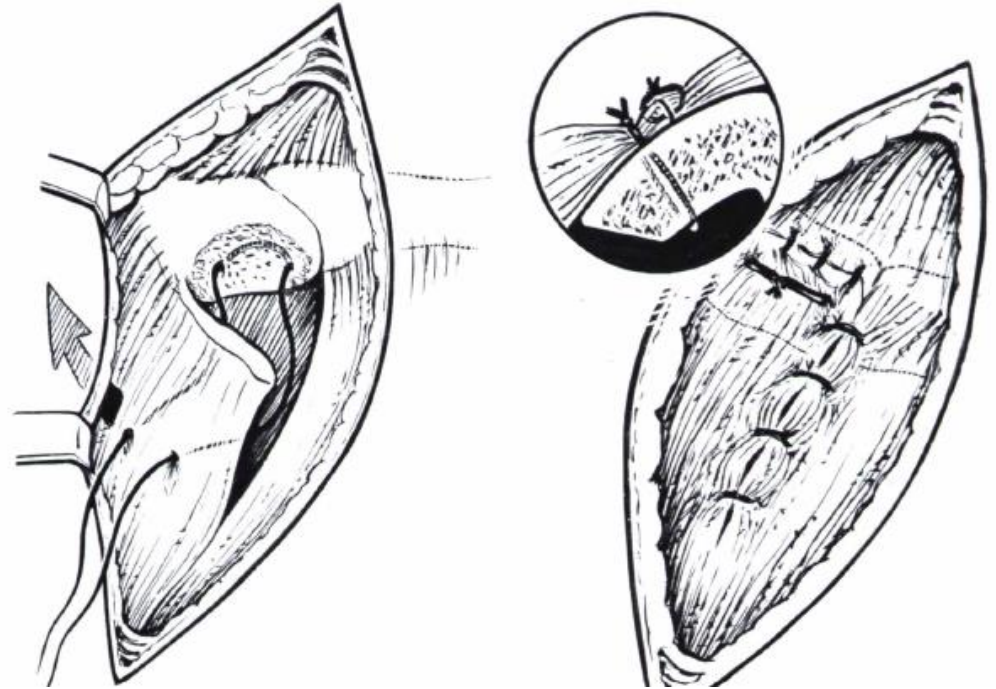
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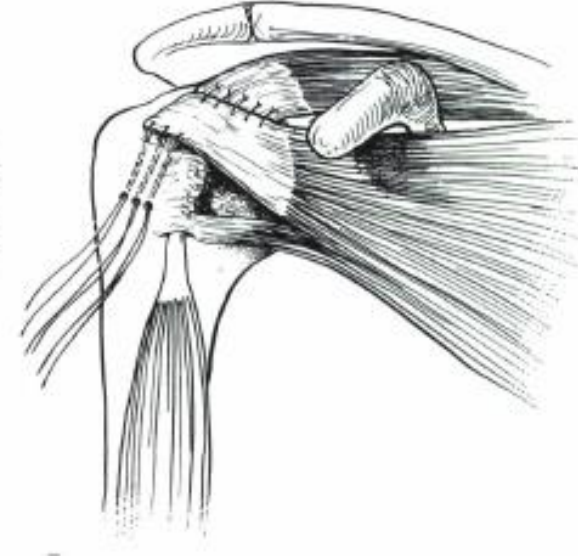
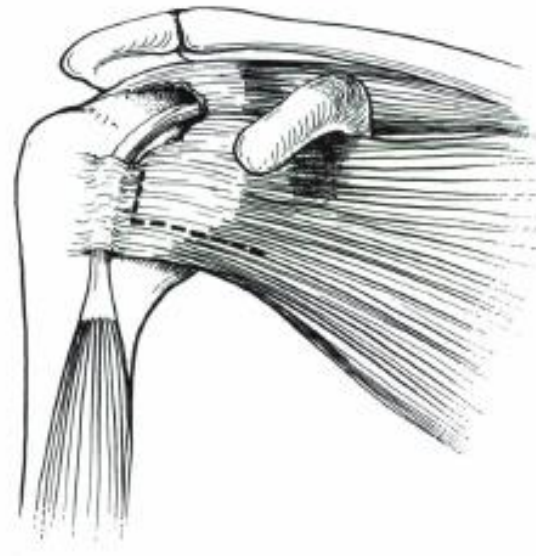
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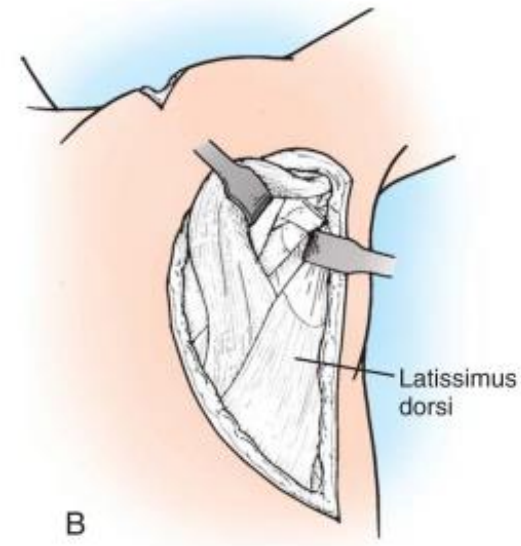
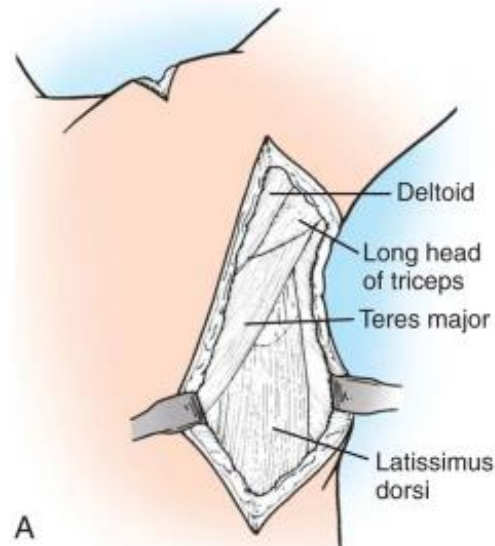
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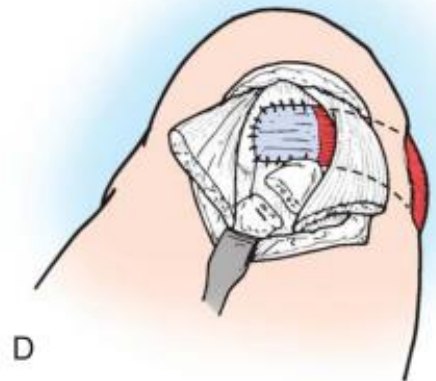
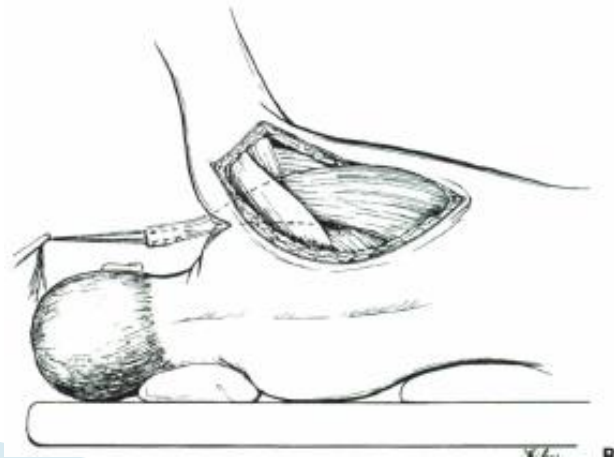
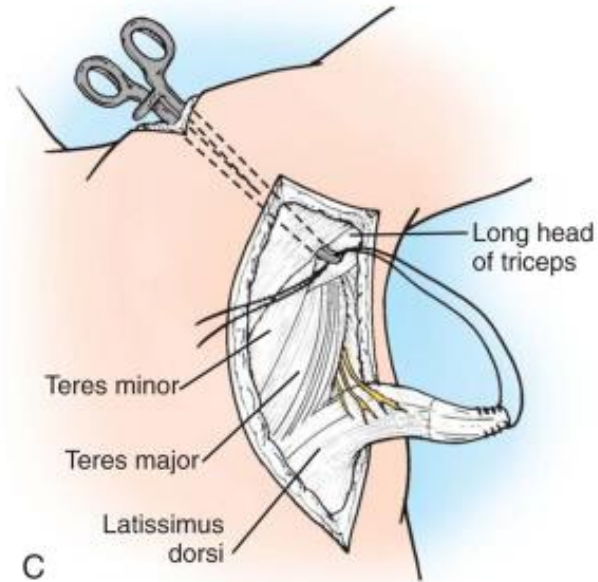
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- ▶ **Muscle transfer**
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 - Repair



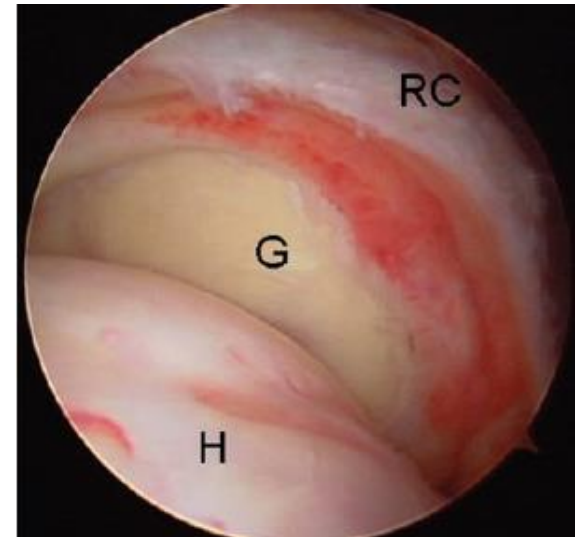
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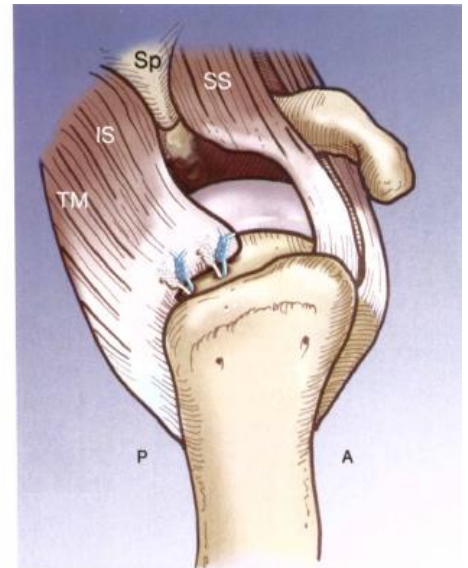
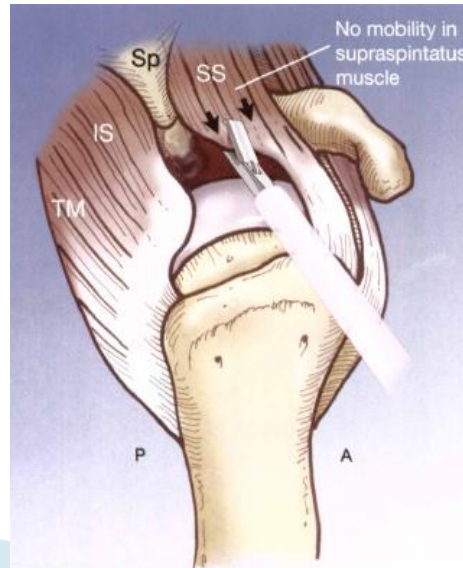
Treatment methods

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- ▶ **Arthroscopic**
 - Debridement
 - Repair



Treatment methods

- ▶ Open repair
- ▶ Muscle transfer
 - Subscapularis
 - Latissimus dorsi
- ▶ **Arthroscopic**
 - Debridement
 - Repair
 - Complete
 - partial repair



Treatment methods

- ▶ Open repair
- ▶ Muscle transfer
 - Subscapularis
 - Latissimus dorsi
- ▶ Arthroscopic
 - Debridement
 - Repair
- ▶ Arthroplasty
- ▶ Superior capsular reconstruction

**Irreparable RC tear
in older patients**

How to treat?

Treatment methods

- ▶ Open repair
- ▶ Muscle transfer
 - Subscapularis
 - Latissimus dorsi
- ▶ Arthroscopic
 - Debridement
 - Repair
- ▶ **Arthroplasty**
- ▶ Superior capsular reconstruction

Irreparable RC
tear



Sup. Migration,
Arthritic
changes

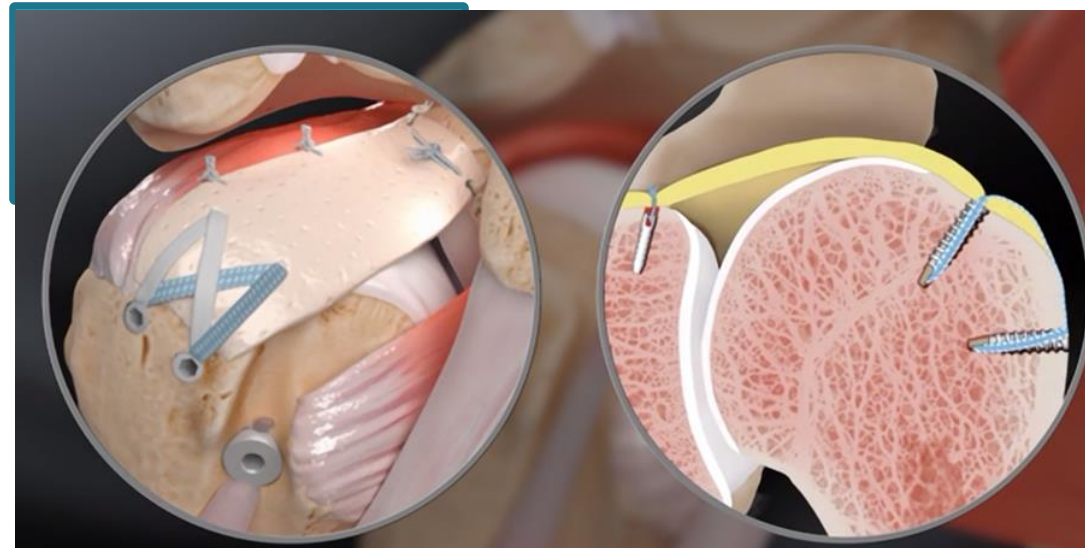
Reverse shoulder
prosthesis

Treatment methods

- ▶ Open repair
- ▶ Muscle transfer
 - Subscapularis
 - Latissimus dorsi
- ▶ Arthroscopic
 - Debridement
 - Repair
- ▶ Arthroplasty
- ▶ **Superior capsular reconstruction**

Irreparable RC
tear

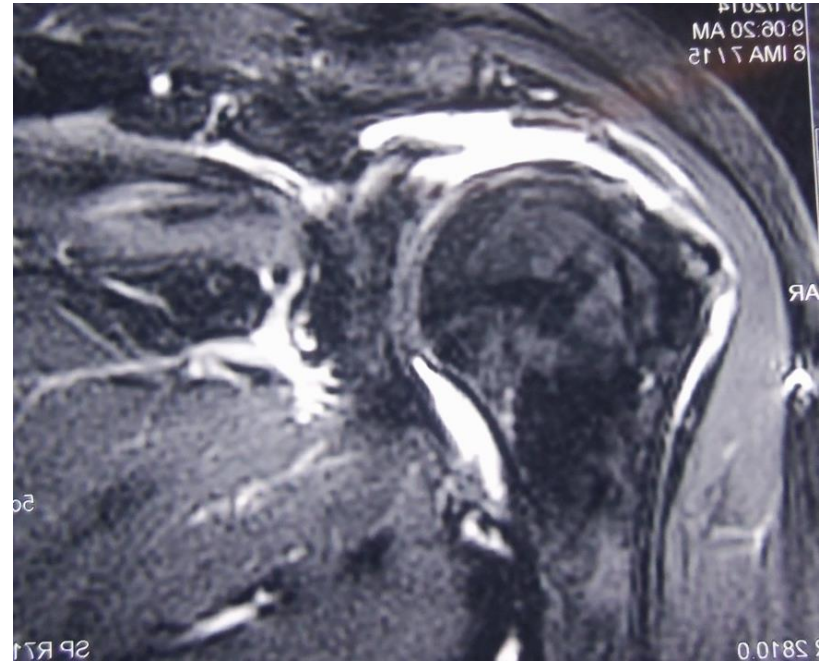
Sup. Migration,
no arthritis



Summary

Massive RC tears is a challenge

- Repairable tears → good result
- Irreparable tears
 - Limited options
 - Age, muscle atrophy
 - Patient expectations



Thank you for attention