ROTATOR CUFF INJURY TREATMENT UPDATE - 2019

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THE ROTATOR CUFF

• SUPRASPINATUS
• INFRA SPINATUS
• TERES MINOR
• SUBSCAPULARIS

SITS
THE ROTATOR CUFF

FUNCTION – FORWARD ARM ELEVATOR
THE ROTATOR CUFF

FUNCTION

- EXTERNAL ROTATOR
- PASSIVE STABILIZER AGAINST POSTERIOR SUBLUXATION
THE ROTATOR CUFF

FUNCTION – EXTERNAL ROTATOR
THE ROTATOR CUFF

FUNCTION

- **INTERNAL ROTATOR**

- **PASSIVE STABILIZER TO ANTERIOR TRANSLATION**
NORMAL ROTATOR CUFF (MRI)
ROTATOR CUFF PATHOLOGY

NORMAL TEAR

TEAR

Cuff Tear Atrophy
ROTATOR CUFF – PARTIAL THICKNESS TEARS

- Intratendinous Degeneration
- Bursal-sided Partial Tears
- Articular-sided Partial Tears
ROTATOR CUFF - PARTIAL THICKNESS TEAR
PARTIAL ARTICULAR SIDED TENDON AVULSION (PASTA)
ROTATOR CUFF TEARS

- Size
- Shape
- Quality
- Patient
ROTATOR CUFF TEAR

- **SIZE**
  - **Small** 0-1 cm
  - **Medium** 1-3 cm
  - **Large** 3-5 cm
  - **Massive** >5 cm
ROTATOR CUFF TEAR

• SHAPE

- Crescent
- Reverse ‘L’
- ‘L’ Shaped
- Trapezoidal
- Full Thickness Tear
- Massive tear
ROTATOR CUFF TEAR

- Tissue Quality
Rotator Cuff Tear

- Patient
PRINCIPLES OF ROTATOR CUFF REPAIR

* Restore tendon footprint under anatomical tension in optimal healing environment.
ROTATOR CUFF REPAIR

before

after
SURGICAL TREATMENT OF ROTATOR CUFF PATHOLOGY
SHOULDER ARTHROSCOPY

Posterior

Anterior
SHOULDER ARTHROSCOPY

SUBACROMIAL SPACE OR GLENOHUMERAL JOINT
Supraspinatus tendon tear
ARTHROSCOPIC ROTATOR CUFF REPAIR
Rotator cuff tear

Rotator cuff repair
ROTATOR CUFF STATISTICS

• 80% OF 80 YEAR-OLD INDIVIDUALS HAVE A ROTATOR CUFF TEAR
• RE-TEAR RATES FOR SMALL, MEDIUM, LARGE TEARS – 10-15%
• RE-TEAR RATES FOR MASSIVE TEARS – 50%
WHY DO WE REPAIR THE ROTATOR CUFF?
WHY DO WE REPAIR THE ROTATOR CUFF?

• TO PREVENT THIS …
MASSIVE, RETRACTED ROTATOR CUFF TEAR
THINGS TO CONSIDER IN THE PATIENT WITH A MASSIVE, RETRACTED ROTATOR CUFF TEAR

- Age, Activity level, General health
- Pain and weakness
- Arthritis? Fatty atrophy of rotator cuff on MRI? Tendon quality?

Nonsurgical versus surgical

- Arthroscopy, +/- graft
- Arthroplasty
ARTHROSCOPIC TREATMENT OF MASSIVE, RETRACTED ROTATOR CUFF TEARS
ARTHROSCOPIC TREATMENT OF MASSIVE, RETRACTED ROTATOR CUFF TEARS

- PRIMARY ROTATOR CUFF REPAIR – SOFT TISSUE MOBILIZATION AND TISSUE REINFORCEMENT TECHNIQUES

Minimal arthritis
ARTHROSCOPIC REPAIR OF MASSIVE, RETRACTED ROTATOR CUFF TEARS

- Rotator cuff repair with Superior Capsular Reconstruction using Acellular Dermal Allograft

Minimal arthritis

Massive, retracted atrophied supraspinatus tear

Superior Capsular Reconstruction
SUPERIOR CAPSULAR RECONSTRUCTION

**INDICATION:** IRREPARABLE ROTATOR CUFF TEAR WITH MINIMAL ARTHRITIS

**INTENT:** PROVIDES A STABLE FULC RUM

RESTORES FORCE COUPLES OF THE ROTATOR CUFF
SUPERIOR CAPSULAR RECONSTRUCTION

- AUTOGRAPH = FASCIA LATA
SUPERIOR CAPSULAR RECONSTRUCTION

- ALLOGRAFT = ACCELLULAR DERMAL MATRIX
WHAT IF THERE IS GLENOHUMERAL JOINT ARTHRITIS AND A MASSIVE ROTATOR CUFF TEAR?

REVERSE TOTAL SHOULDER ARTHROPLASTY

- Establishes a more inferior and medial center of rotation
- Optimizes deltoïd function to elevate the arm
- Minimizes pain by resurfacing the arthritic joint
REVERSE TOTAL SHOULDER ARTHROPLASTY
IN SUMMARY...

• **Not all rotator cuff tears are created equally**

• **A careful history, exam, and diagnostic study review are important to make a good decision for each patient**

• **Science and technology will continue to advance the treatment of rotator cuff pathology, especially massive tears**

Thank you