Management of Rotator Cuff Injuries

2025 Evidence-Based Clinical Practice Guideline Summary

Adapted from the AAOS Board of Directors 2025 Guideline. Designed for Rapid Clinical Application.

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The Clinical Pathways

Non-Operative & Rehab
Physical Therapy, Sling Use, Mobilization

Surgical Intervention
Arthroscopic/Open, Row Constructs, Salvage

Biologics & Adjuncts
PRP, Grafts, Implants, Injections

Evidence Strength Index

Strong Recommendation
(High Quality Evidence)

Moderate Recommendation
(Moderate Quality Evidence)

Limited Option
(Low Quality Evidence)

Consensus Option
(Workgroup Opinion/Mixed Evidence)

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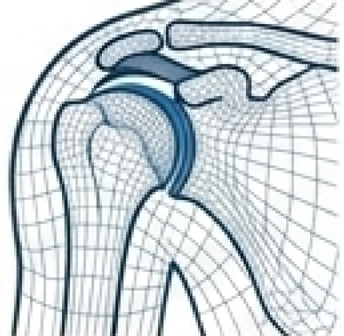
Baseline Diagnostic Rules

Clinical Examination

A combination of tests increases diagnostic accuracy compared to any single clinical examination test.

TAKEAWAY: Do not rely on a single provocation maneuver.

Imaging



MRI, MRA, CT, and Ultrasound are all useful adjuncts to clinical exam and standard radiographs for identifying tears.

TAKEAWAY: Multimodal imaging confirms clinical suspicion.

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Phase 2: Management by Tear Severity

The Natural History of Non-Operative Management

PROs improve significantly with physical therapy.

Risk of progression: Tear size, muscle atrophy, and fatty infiltration may progress over 5–10 years.

Functional Capacity

0 Months
1 Year
5 Years
10 Years
Time

Clinical Bottom Line

Physical therapy effectively treats the symptoms, but does **not** halt the long-term anatomical degradation of the cuff.

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Small/Medium Tears:
Physical Therapy vs. Surgical Repair

Both modalities result in significant PRO improvement (High Evidence). However, **long-term** data favors healed surgical repairs.

	Physical Therapy	Surgical Repair
The 5-Year Mark	Minimal difference. (ASES score +9.0, Constant +5.3 for surgery, but below minimal clinically important difference)	
The 10-Year Mark	Surgery Diverges. (Constant score +9.6 pts, ASES +15.7 pts in favor of surgery)	
Crossover Risk	Patients who fail PT and cross over to delayed surgery have significantly lower Constant scores (-10.0 pts) than primary repair patients.	

Key Takeaway: Healed rotator cuff repairs show improved PROs and functional outcomes compared to PT and unhealed tears over the long term.

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The Clinical Blueprint

Partial-Thickness Rotator Cuff Tear

Low- or Intermediate-Grade

First-line: Physical Therapy.

If persistent pain/impairment

Surgical Intervention.

High-Grade

- Debridement
- Repair (Improves Outcomes)

Conversion to full-thickness or in-situ repair is recommended for failed conservative management.

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Massive Unrepairable Tears

Reverse Shoulder Arthroplasty (RSA)
Outcome: Improves PROs after failure of conservative treatment.

YES

Is Glenohumeral Arthropathy Present?

NO

Salvage Toolkit

PT	Biceps tenotomy / tenodesis	Partial repair	Tendon transfer
Superior capsular reconstruction	Arthroscopic debridement	Balloon spacers	Graft augmentation (non-porcine)

If significant functional loss and failed treatments → Reverse Shoulder Arthroplasty is viable.

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Phase 3: The Surgical Toolkit

Open vs. Arthroscopic Repair ★★★★

Arthroscopic Advantage (Short-Term)

Better early recovery of motion and decreased VAS pain scores.

Open Repair

Arthroscopic Repair

Long-Term Outcomes (> 1 Year)

No difference in patient-reported outcomes or cuff healing rates.

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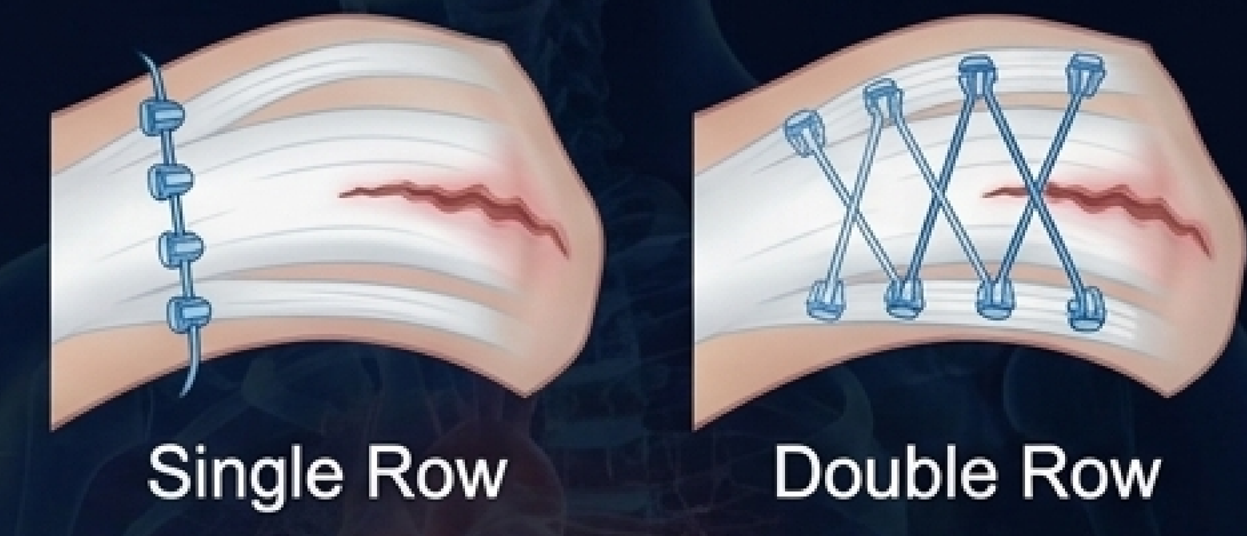
Row Constructs: ★★★★
Single vs. Double Row



	Small/Medium Tears	Large (>3cm) Tears
Patient-Reported Outcomes (PROs)	Single Row = Double Row. No routine benefit for Double.	Double Row shows improved PROs.
Retear Rates	Single Row = Double Row.	Double Row results in lower overall retear rates. (Not significantly favored when evaluating only full-thickness retears).

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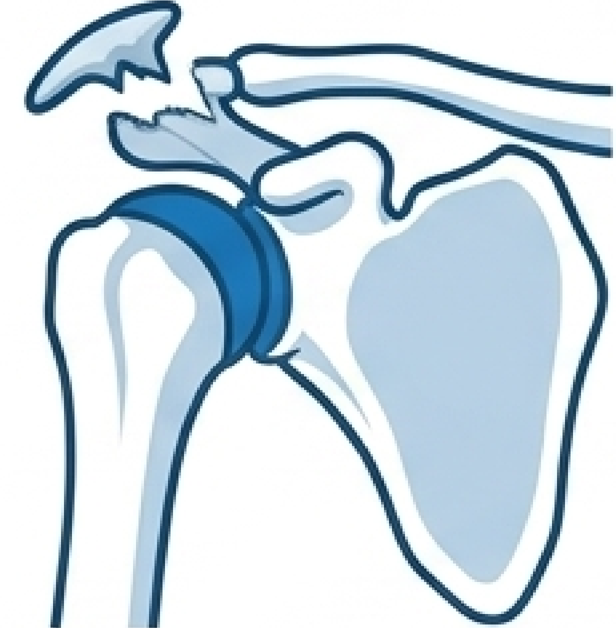
Surgical Adjuncts

Acromioplasty



VERDICT

NOT suggested for routine therapeutic benefit.

No added value compared to arthroscopic repair alone for small/medium full-thickness tears.

Marrow Stimulation

VERDICT

Does NOT improve general PROs.

MAY decrease retear rates specifically in patients with larger tear sizes.

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Phase 4: Biologics, Implants & Injections

The Injectables Matrix

Modality	Indication	Recommendation	Evidence Strength	Clinical Caveat
Corticosteroids	Shoulder Pain	Consider for short-term pain/function	★★★☆	Injectable NSAIDs if steroids not tolerated.
Multiple Steroids	Rotator Cuff Tears	Caution advised	★★☆☆	Multiple injections may compromise cuff integrity and subsequent repair.
Hyaluronic Acid	Pathology with NO tears	May be considered	Limited Option	Non-operative management only.
Prolotherapy	Full-thickness tears	NOT recommended	★★★★	Do not use.

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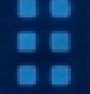
Platelet-Rich Plasma (PRP) Specifics

Stop/Red Tendinopathy or Partial Tears	**Routine** use of PRP is **NOT supported.**	
Caution/Yellow Full-Thickness Tears (Non-Operative)	Routine use of PRP may NOT be indicated.	
Proceed/Green Full-Thickness Tears (Surgical Augmentation)	Does NOT improve PROs, BUT Liquid PRP decreases retear rates.	



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Physical Augments & Implants

Bioinductive Implants

Recommended

Lower retear rates and better PROs when used to augment repair or as an alternative to non-augmented repair.

Human Dermal Allografts

Recommended

Can lead to lower retear rates and better PROs.

Porcine Allografts

NOT Recommended

Explicitly not suggested for use in rotator cuff augmentation.

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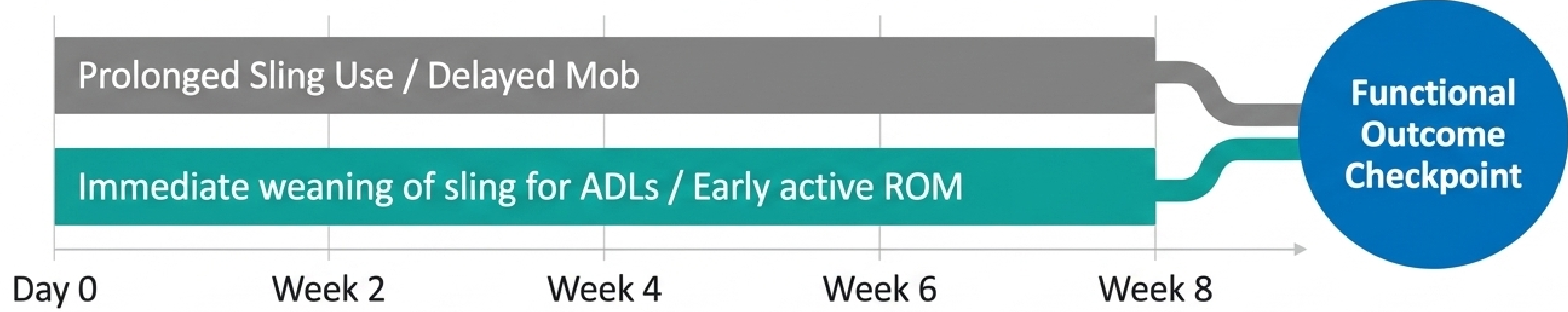
Phase 5: Post-Operative Rehabilitation

Post-Op Mobilization & Sling Use ★★★★ ★★☆



The Convergence.

Immediate sling weaning for ADLs does not adversely affect healing, functional outcomes, or PROs compared to prolonged immobilization.

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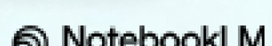
Rehab Supervision & Pain Management

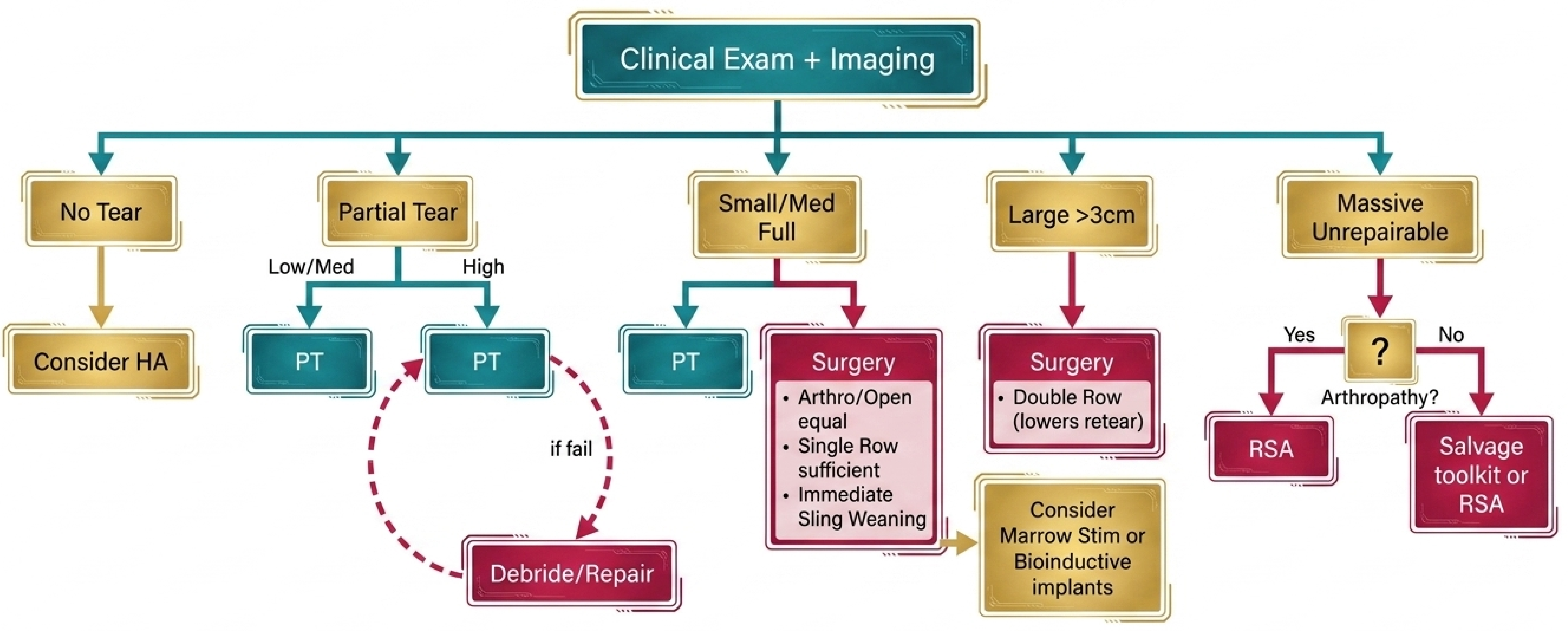
The Clinical Blueprint

Supervised vs. Independent PT: A single session of PT instruction followed by an independent home program provides EQUAL improvements in pain and function (at 3 to 12 months) compared to continuous supervised PT visits for small tears.

Postoperative Pain Management: Multimodal analgesia programs or non-opioid individual modalities provide added benefit for post-op pain management, crucial in the context of opioid reduction.



The Master Treatment Algorithm



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Access the Complete Point-of-Care Guideline

Download the App

View the Web App

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