Rotator Cuff Repairs:
Successful Return to Work Strategies

Bantoo Sehgal, M.D. | Orthopedic Surgery
Summit Orthopedics of Texas

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Shoulder injuries account for one of the top 5 work related injuries accounting for over 20% of all work-related musculoskeletal issues.

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Learning Objectives

- Getting a better understanding of what to expect from medical and clinical providers
- Lead to high quality outcomes from the management of the injured worker after rotator cuff repair
- Leading to safe, efficient, timely, and sustainable return to work

What we will talk about

- Discuss the shoulder and rotator cuff pathology
- Review surgical approach
- New treatments
- Emerging treatments (PRP / Stem Cells)
- Identify injured workers confounding factors
- Post op considerations
- Communication between providers
- Physical therapy and clarifying work comp terms (FCE, work conditioning / hardening)
- Return to work / Job demands

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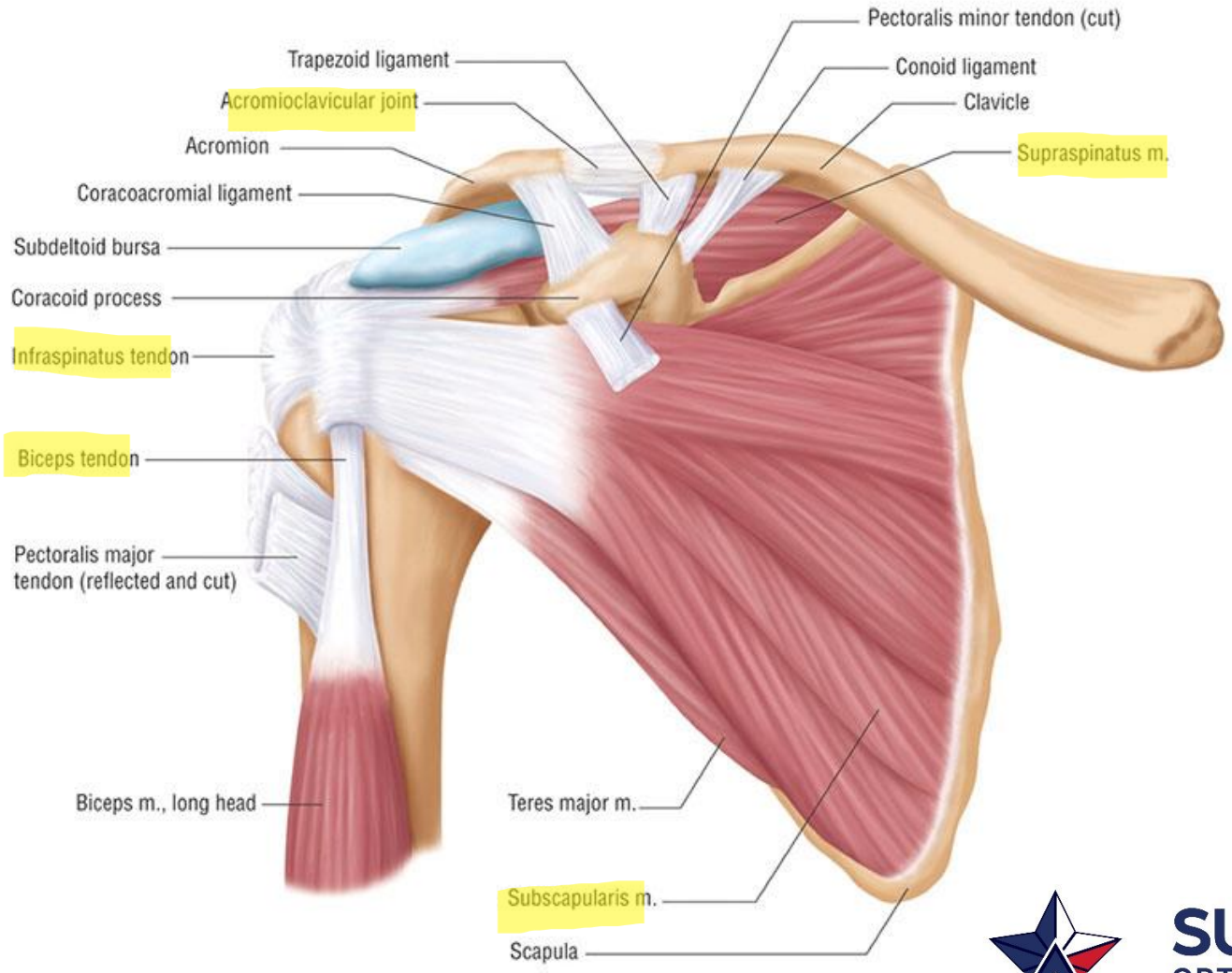
Shoulder Anatomy



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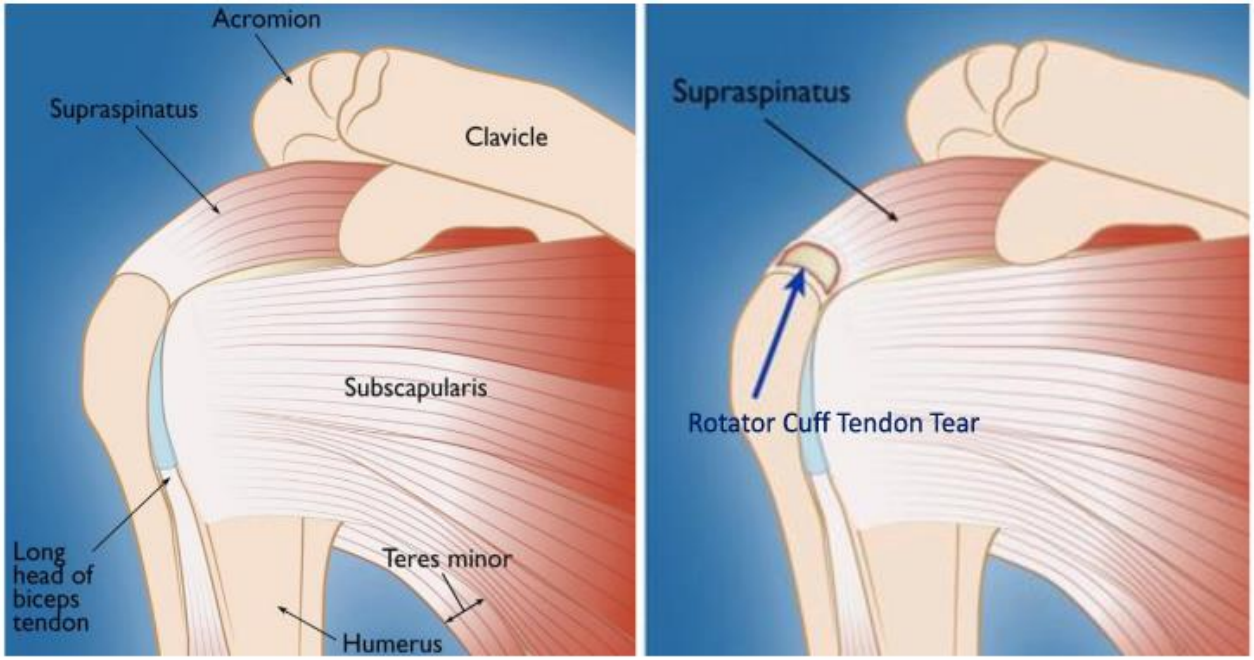
Rotator Cuff Tears

Saving shoulders & sanity, one cuff at a time

Prevalence:

- Occupations that involve repetitive overhead activities, heavy lifting, or constant arm movement



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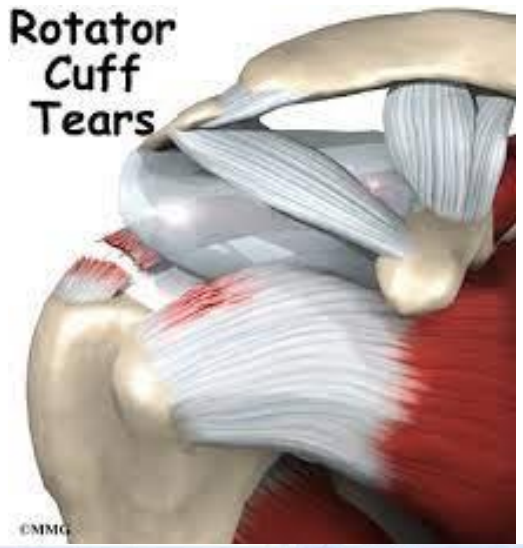
Rotator Cuff Tears



Mechanism of Injury:

- Acute trauma - fall or sudden forceful motion
- Chronic wear and tear due to repetitive strain on the shoulder muscles and tendons and then a lower energy traumatic event – This is considered an **AGGRAVATION** and should be considered compensable

Exacerbation VS Aggravation

Exacerbation:

- Short-term condition
- NOT typically compensable

Aggravation:

- Another level condition
- IS typically compensable

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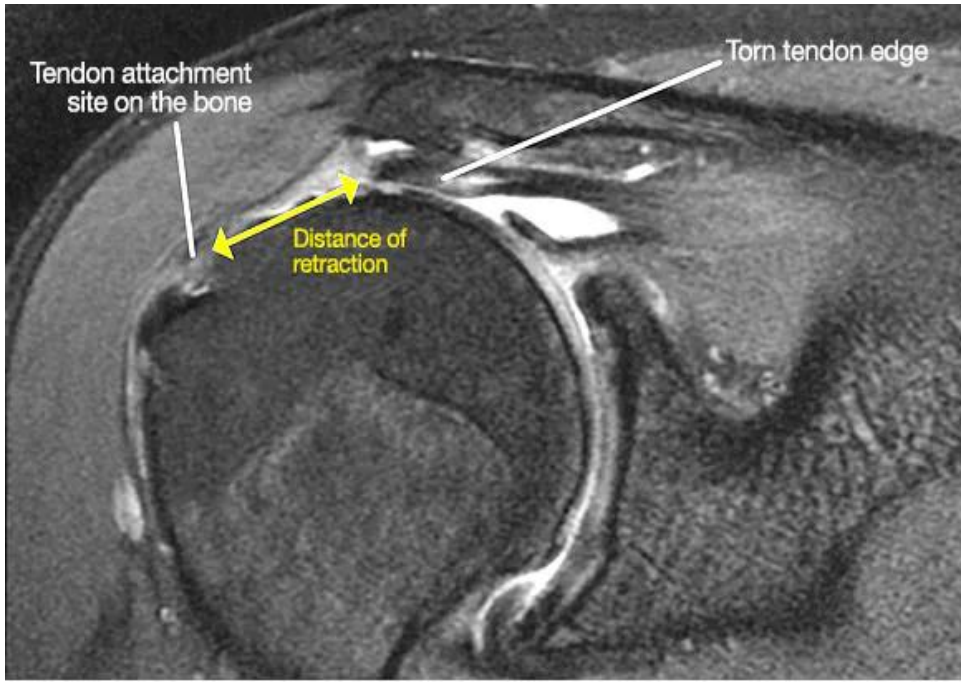
Rotator Cuff Tears - Diagnosis



- **Symptoms:** pain, weakness, limited range of motion, and difficulty lifting, reaching, or carrying.
- **Impact on Work:** Rotator cuff tears can lead to reduced productivity, absenteeism, and altered work capabilities
- **Diagnosis:** Medical history, Clinical evaluation, Imaging studies (MRI)

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Rotator Cuff Tears - Diagnosis

- Delay in diagnosis of full thickness tear can lead to worse long-term outcomes
- Low threshold for MRI if failed conservative management

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Rotator Cuff Tears – Not All Created Equal!

Partial Rotator Cuff Tear

- Only a portion of the rotator cuff tendon is torn, while the rest remains intact
- Categorized based on size or percentage (typically <50%) of the tendon torn
- Pain, weakness, and limited shoulder movement, but less severe than those with complete tears

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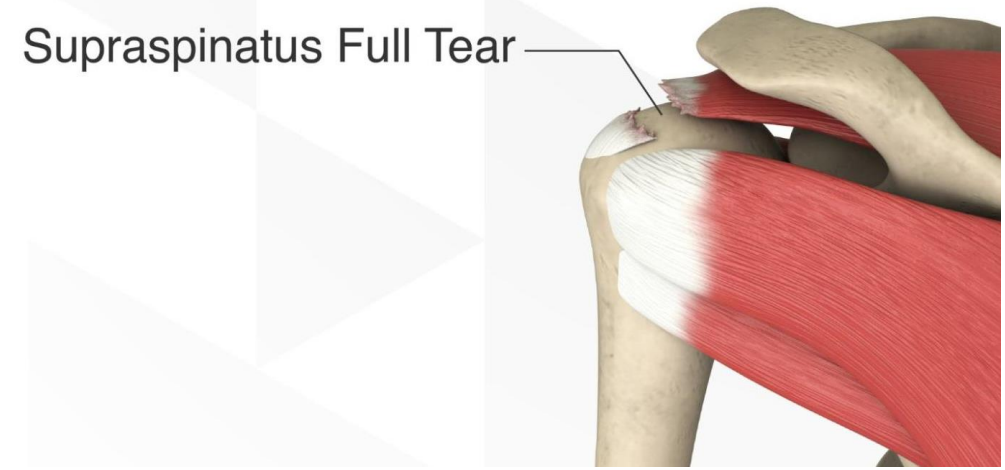
Rotator Cuff Tears – Not All Created Equal!



Complete Rotator Cuff Tear

- Full separation of the rotator cuff tendon from its attachment to the bone
- Categorized based on which specific tendon is affected
- Severe pain, significant loss of strength, and substantial restriction in shoulder movement.

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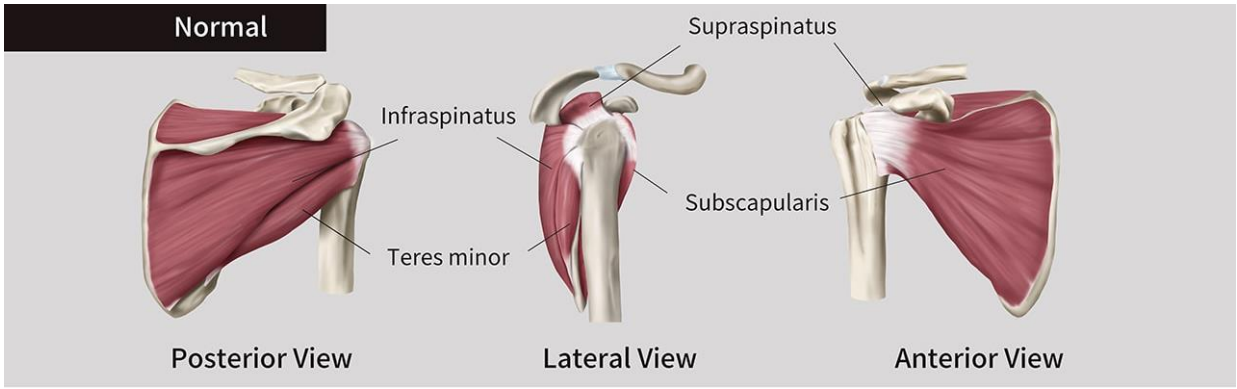
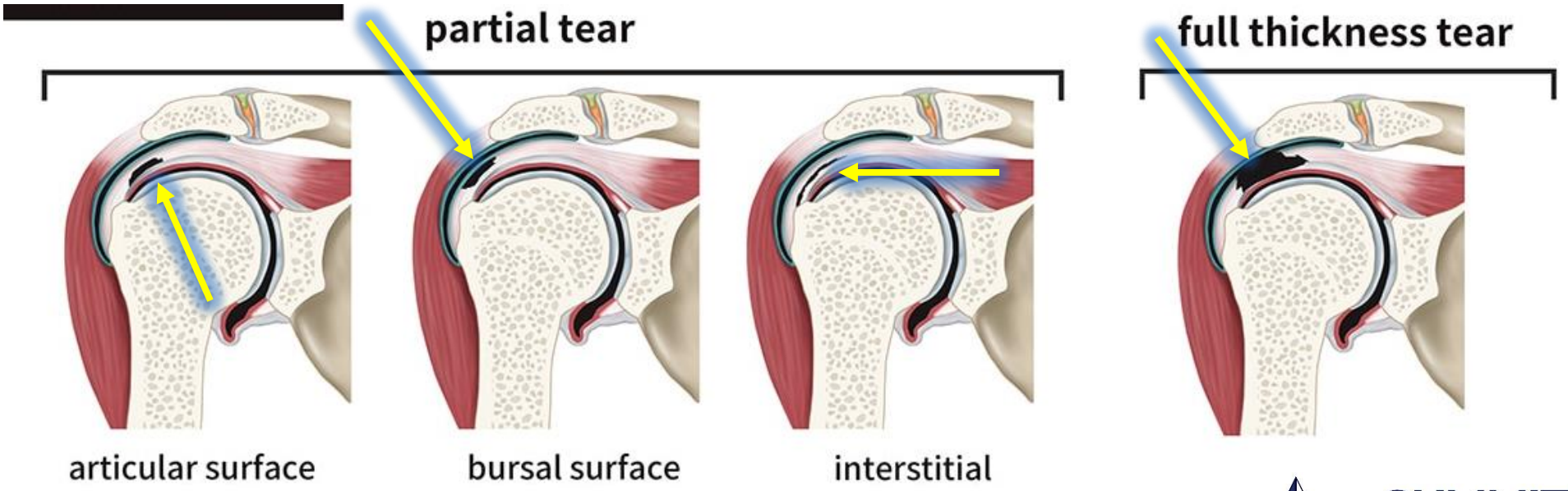
Rotator Cuff Tears – Not All Created Equal!





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Rotator Cuff Tears – Treatment – Partial Tear

- **Rest and Activity Modification:** Avoiding activities that exacerbate the pain Modify or reduce repetitive overhead movements – Work Restrictions
- **Physical Therapy:** To improve shoulder strength, flexibility, and overall function
- **Anti-Inflammatory Medications:** Nonsteroidal anti-inflammatory drugs (NSAIDs) often used to manage pain and reduce inflammation
- **Corticosteroid Injections:** Provide pain relief and help manage inflammation.

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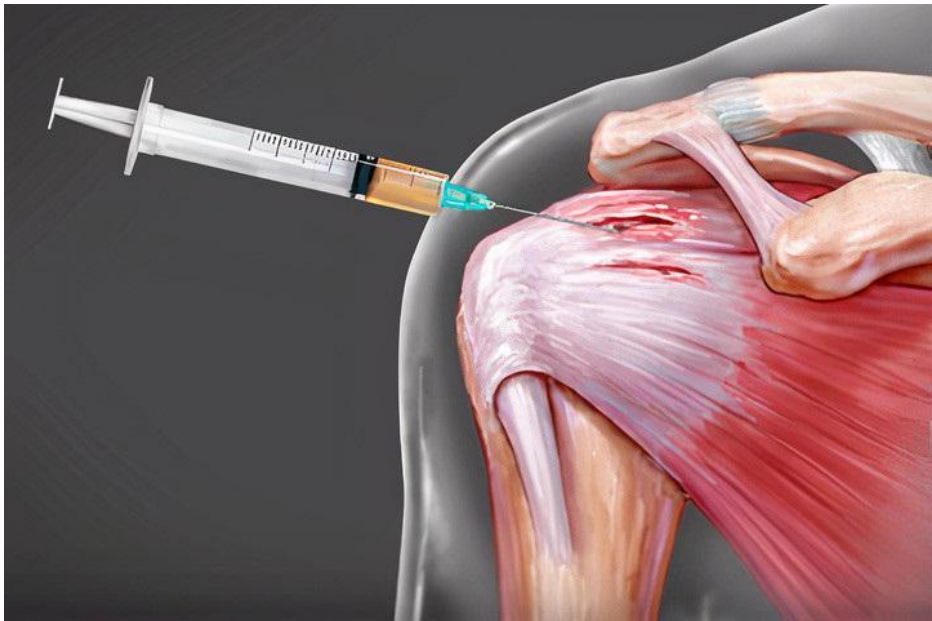
Rotator Cuff Tears – Treatment – Partial Tear

Platelet-Rich Plasma (PRP) Therapy

- Extracting a small amount of the patient's blood, processing it to concentrate the platelets and growth factors, and then injecting this concentrated solution into the injured area.
- Platelets contain strong anti-inflammatories & growth factors that can decrease pain (inflammation) & stimulate tissue repair and regeneration
- Disadvantages
  - Difficulty obtaining work comp coverage



PRP Common Uses

- **Rotator Cuff Partial Tears**
- **Tennis elbow**
- **Hip flexor tendonitis / tear**
- **Patellar tendonitis / Jumpers knee**
- **Knee arthritis**
- **Post / during surgery for improved healing**


Magic injection to
the stars?

What about these stars?

Stem Cell Therapy

Can fix everything

Someone said it was illegal in the USA

Everyone is getting it

Can cure cancer

Can cure a paraplegic

Can make me 18 years old again

Can grow my hair back

Can give me muscles

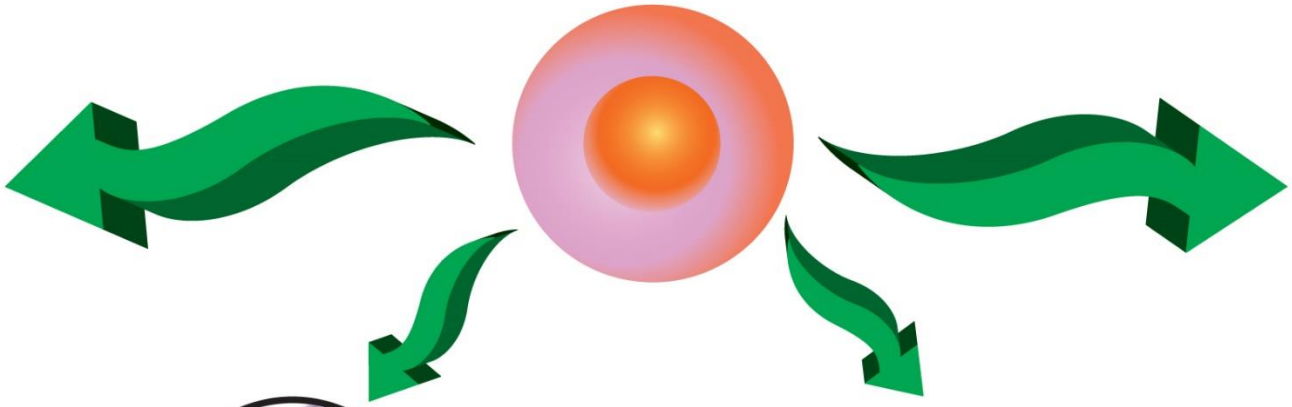
Stem Cell Definition

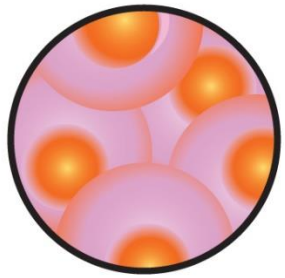
- **A cell that has the ability to continuously divide and differentiate (develop) into various other kind(s) of cells/tissues**

What is a Stem Cell?

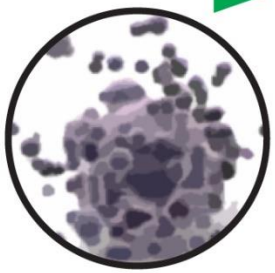
A mesenchymal stem cell is a primitive cell with the ability to:

Reduce Inflammation



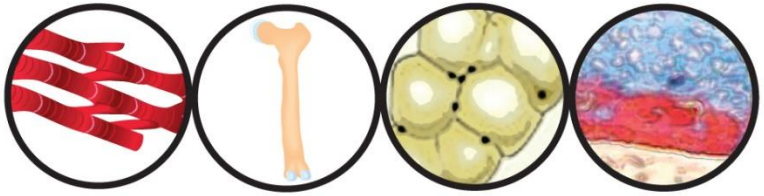


Self Replicate



Fight Apoptosis (Cell Death)

Differentiate into Multiple Tissues



Muscle Bone Fat Cartilage

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Adult Stem Cells

- Used in Orthopedics
- Undifferentiated cells found among specialized or differentiated cells in a tissue or organ after birth (Fat and Bone Marrow)
- Can turn into muscle, bone, cartilage

Sources of Adult Stem Cells

- Fat (most #’s of cells)
- Bone Marrow
- Placenta
- Umbilical cord
- Amniotic tissue

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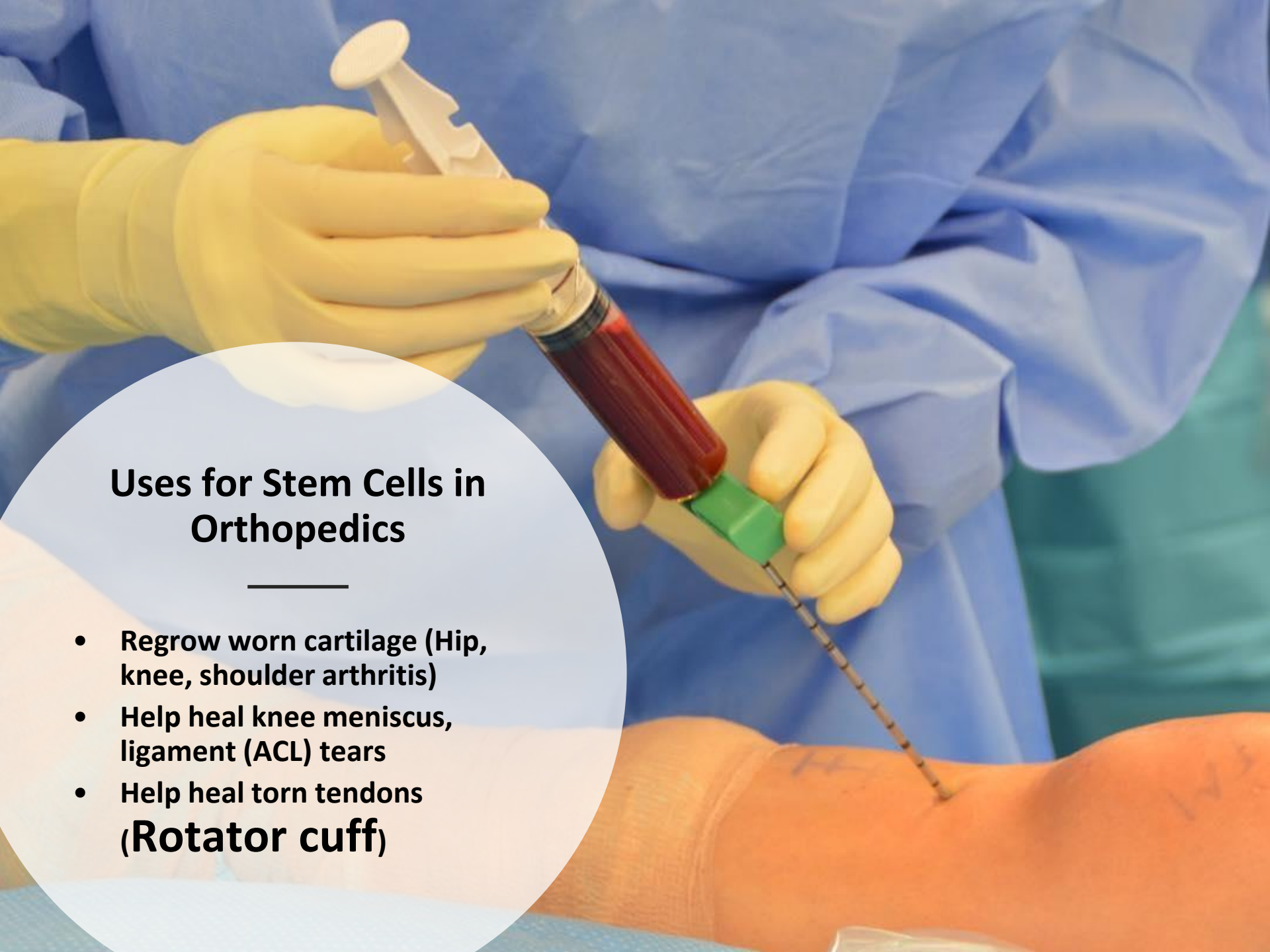
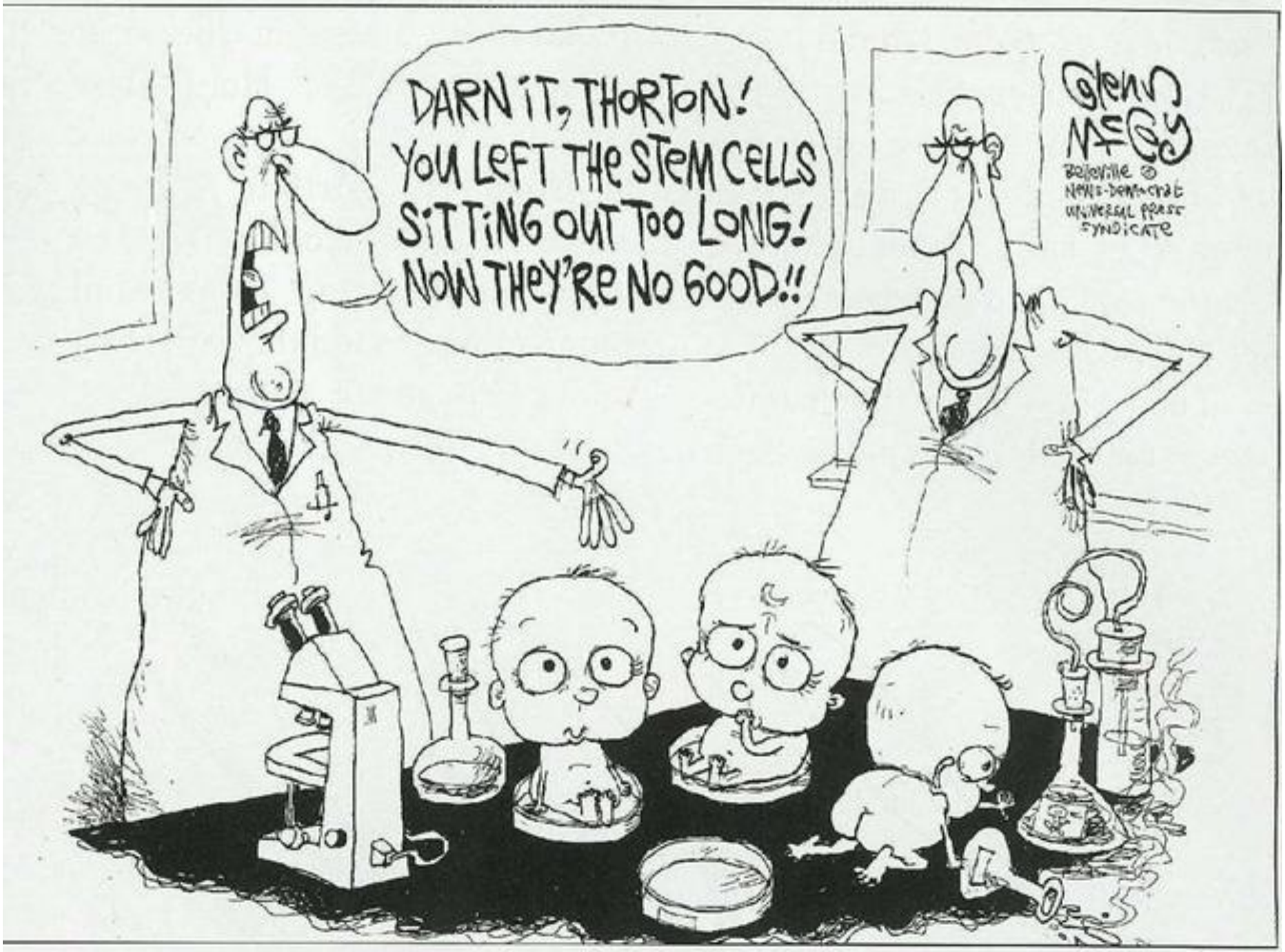


Uses for Stem Cells in Orthopedics

- Regrow worn cartilage (Hip, knee, shoulder arthritis)
- Help heal knee meniscus, ligament (ACL) tears
- Help heal torn tendons (**Rotator cuff**)

Do Stem Cells Actually Work

- Yes and No
- Very promising future
- We don't know enough yet
- Early degeneration with much better chance for good results
- Getting them to turn into things we want is the hard part


DARN IT, THORTON! YOU LEFT THE STEM CELLS SITTING OUT TOO LONG! NOW THEY'RE NO GOOD!!
Glen McCoy
Belleville News-Democrat
Universal Press Syndicate

Rotator Cuff Tears – Treatment – Surgical Indications

- Most full thickness tears will benefit from surgical repair if symptomatic
- Partial tears that fail conservative treatments – ODG (Official Disability Guidelines) recommends 3-6 months of non op treatment first

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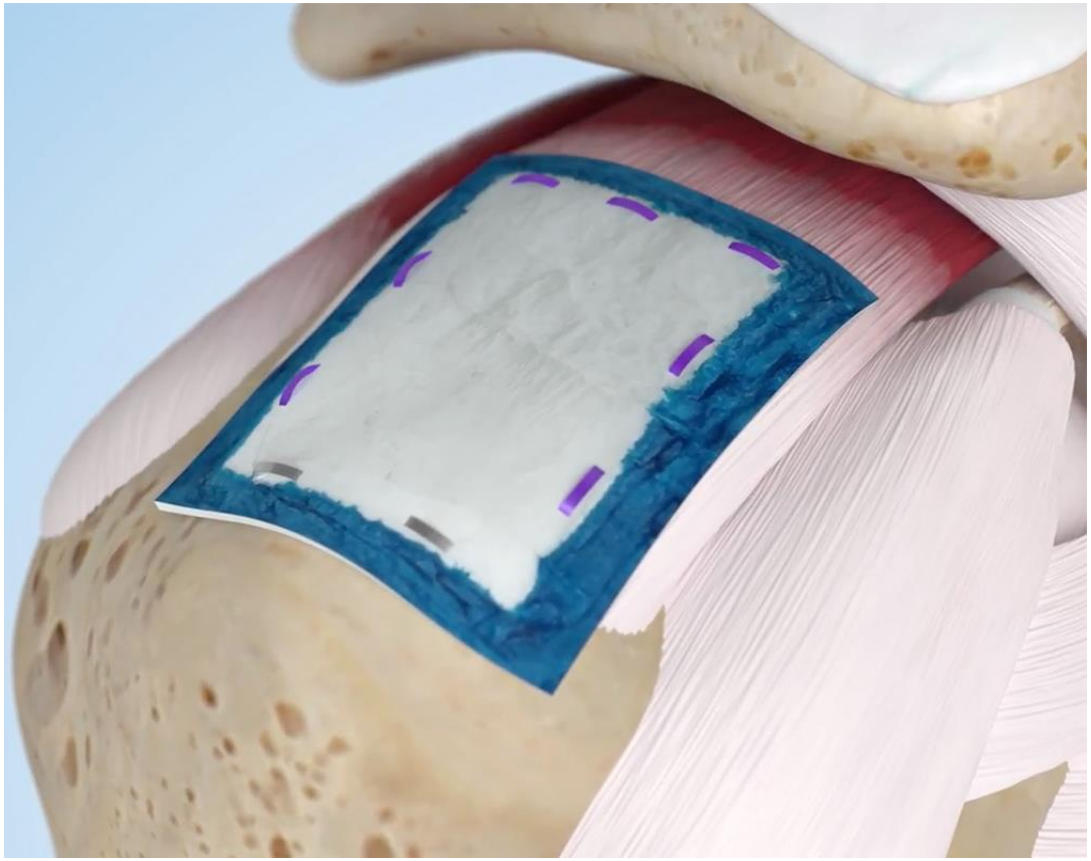
Rotator Cuff Tears – Treatment – Surgical Technique

- Arthroscopic repair
- Minimally invasive approach using small incisions and a camera to repair the tear

Dermal “patch” Augmentation
New guy on the block



- Using a graft or “patch” made of biologic (human dermal) or synthetic material
- Either primary repair or augment sutured repair
- **Great option for partial tears**

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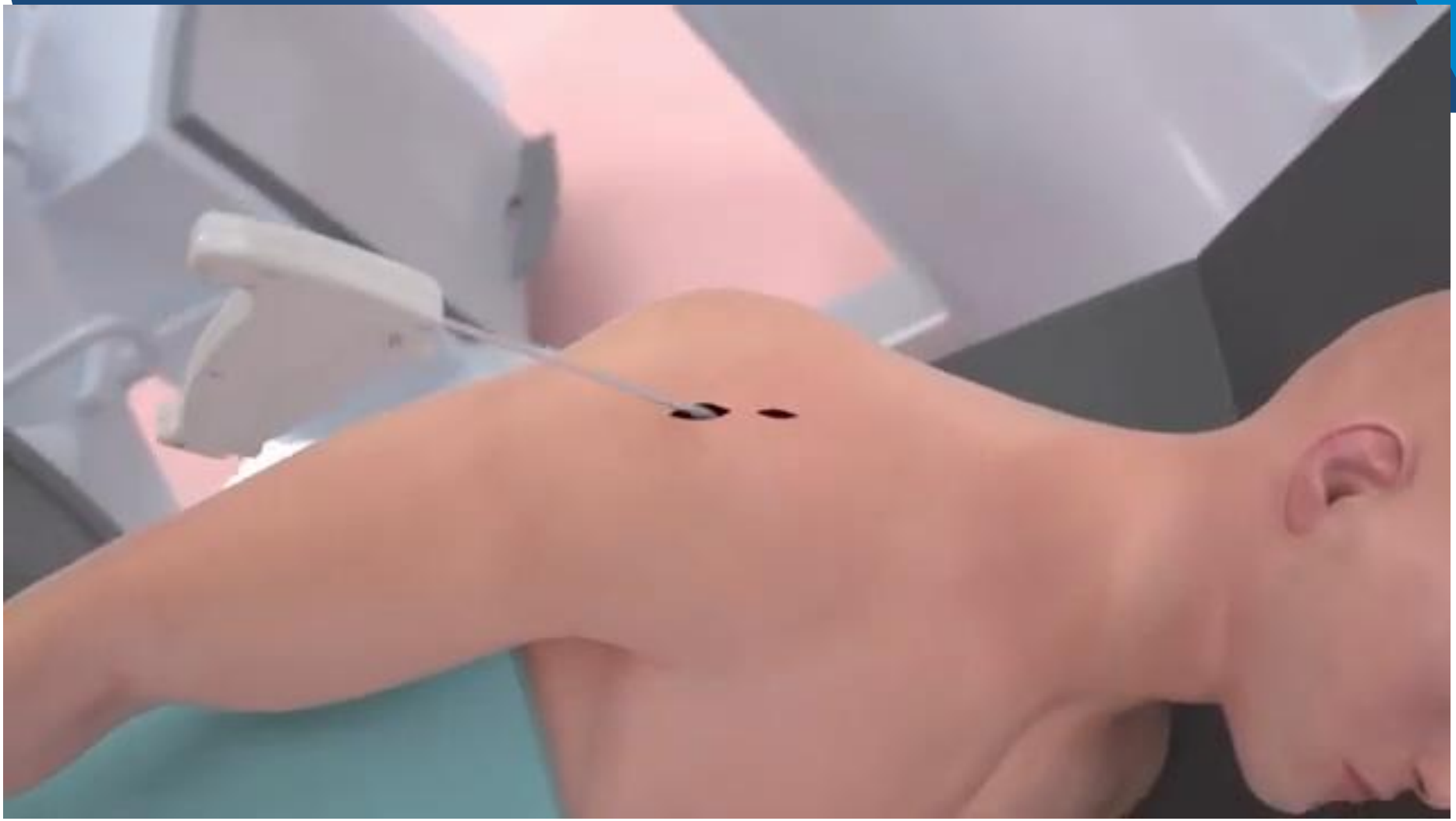

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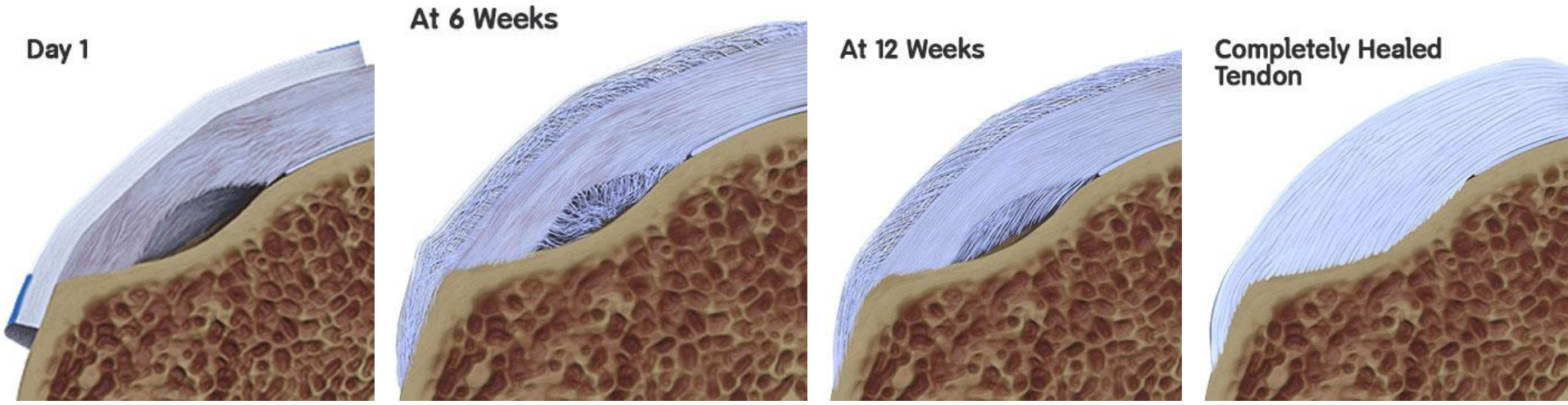
Dermal “patch” Augmentation



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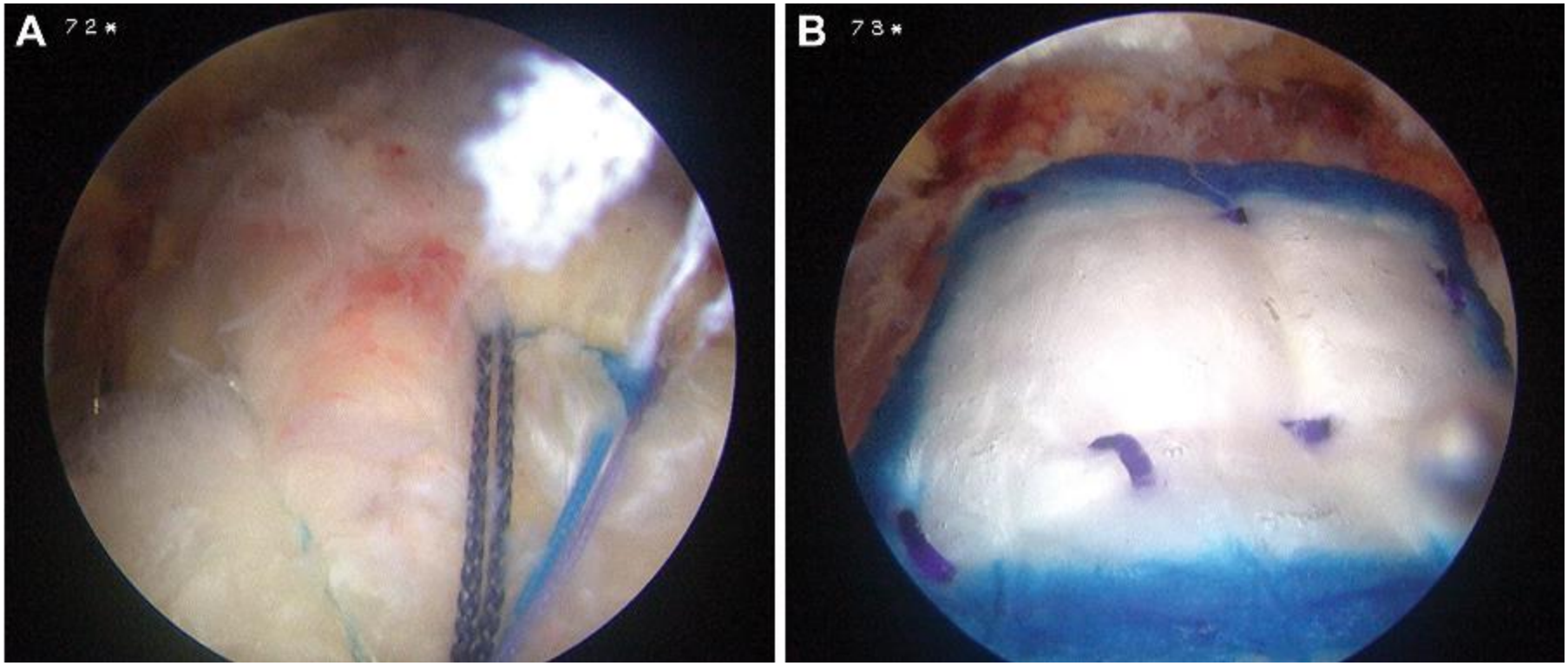

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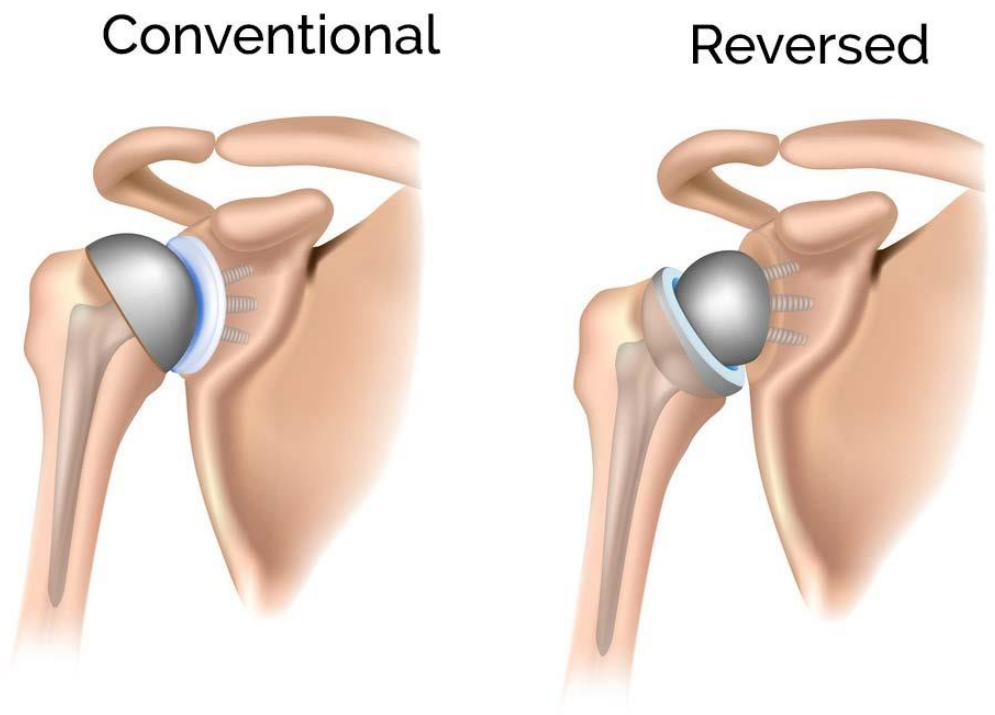
Rotator Cuff Tears – Treatment – Surgical Technique Irreparable Tears

- Some tears are too large to repair
- Significant retraction
- Fatty Atrophy
- May consider Reverse Shoulder Replacement
- Harder to get approved but in the correct patient results are better than attempting rotator cuff repair



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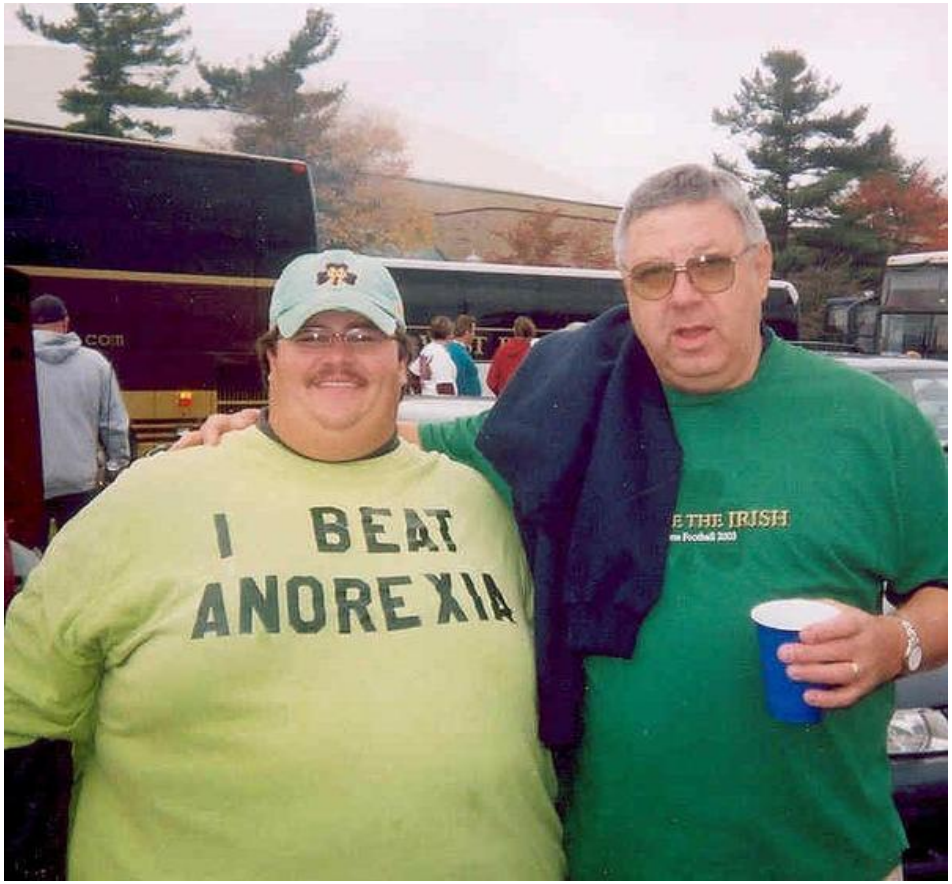
Predisposing risk factors for rotator cuff tears?

- Advanced age
- Male gender
- Diabetes
- Dominant arm
- History of trauma
- Occupation



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Confounding Factors?

Psychosocial or non-physical issues that complicate:

- **Recovery**
- **Compliance**
- **Return to work**

Examples:

- Pre-existing conditions (diabetes, prior cuff tear)
- Mental health (depression, anxiety)
- Secondary gain, litigation involvement
- Lack of job satisfaction or motivation

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How do they impact the claim?

- Delayed recovery or plateau in rehab
- Non-compliance with treatment or physical therapy
- Exaggeration of symptoms or inconsistent pain behaviors
- Higher chance of permanent restrictions
- Longer time off work

  = Increased Cost

Initial Post-Op Considerations
Let the Healing Begin

- **Healing Constraints**
  - Tendon-to-bone healing takes ~12 weeks to biologically anchor
  - Strengthening too early = failure risk
  - Smoking, diabetes, poor vascularity → delayed healing
  - Sling compliance matters (even if patients hate it)

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Early Post-Op Management & Interventions

- Start Therapy EARLY!
- Exact protocol will depend on size of tear / quality of repair

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Early Post-Op Management & Interventions

Weeks 1-2:
- Pain control (ice, meds, sling support)
- Patient education is key: “Don’t test it… even if it feels better!”
- Gentle Pendulums
- No lifting anything heavier than a coffee cup

Weeks 2-6:
- Gradually restore full passive ROM
- Emphasis on scapular mechanics, posture

Weeks 6-12:
- Discontinue sling
- AAROM (Active assisted) -> AROM (Active)

Weeks 12-24:
- Strengthening
- Light weights

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Communication is KEY!

- Team approach, Case managers, Physical therapist, Treating doctors, Urgent cares, Imaging Centers, Orthopedic Surgeons must all work together!

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Communication

- Sets the tone for the entire recovery
- Influences:
  - Patient trust
  - Adherence to the plan
  - Return to work attitude
- Prevents confusion, mistrust
- Finish office note and DWC 73 form
- Discuss treatment plan with case manager, therapist, injured workers employer

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Rotator Cuff Tears – Return to Work

- **Return to work can vary widely**
  - Extent of the tear
  - Patient's overall health
  - Nature of their job
  - Patient's cooperation with rehab and motivation
- **Light to Moderate Physical Work:**
  - May allow a return to work between 6 to 12 weeks after surgery
- **Physically Demanding Jobs:**
  - Involving heavy lifting, repetitive overhead activities, or manual labor
  - May allow a return to work between 3 to 6+ months or more
- **Gradual Return:**
  - Regardless of job type, start with lighter tasks and gradually increasing the workload as the shoulder heals and gains strength.

Considerations for Treatment Planning

- Set Expectations **EARLY** – both clinical and functional
- Partner closely with PT to monitor for red flags

Consider:

- Functional capacity evaluation (FCE)
- Work Conditioning
- Work Hardening (Psych component)
- Pain management referral
- Gradual return-to-work strategy, even if full duty isn't possible

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FCE (Functional Capacity Evaluation)

- Performed at the end of rehab or when return to work is unclear
- Objectively measures:
  - Strength
  - Endurance
  - Functional ability
- Helps determine:
  - **RTW readiness**
  - **Permanent restrictions**
  - **Support disability claims if needed**
- *Look for symptom exaggeration, malingering, sub maximal effort*

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Work Conditioning Vs Work Hardening

Feature	Work Conditioning	Work Hardening
Goal	Restore general **physical capacity** for work	Simulate the **full work environment** & job duties
Duration	1–2 hours/day, 3–5 days/week	2–4 hours/day (can progress to full shifts)
Focus	Strength, flexibility, endurance	Job-specific tasks, behavioral & vocational components
Setting	PT/OT outpatient clinic	Multidisciplinary setting (PT, OT, psych, voc rehab)
Best for	Workers who are physically **deconditioned**	Workers with complex injuries or **psychosocial barriers**
Components	Cardiovascular, core, work-simulated tasks	Full job simulation, cognitive/behavioral coaching
Outcome Measure	Improved strength/ROM/endurance	Return-to-work readiness, permanent restrictions, FCE

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Know the Job – or Risk Failing the Plan

- You can't build a realistic return-to-work plan if you don't know what the patient actually does
- Generic protocols don’t account for:
  - Repetitive overhead tasks (e.g., painters, electricians)
  - Forceful pushing/pulling (e.g., warehouse, law enforcement)
  - Static postures or vibrations (e.g., drivers, welders)

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Know the Job – or Risk Failing the Plan

How It Affects the Treatment Plan

- Sets benchmarks for range of motion, strength, endurance
- Guides PT focus areas (overhead lifts, rotational power, grip strength)
- Determines timing of work conditioning or FCE
- Helps define temporary vs. permanent restrictions
- Request a Job Description or Job Demand Analysis

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Conclusion

Key Takeaways

- **Early diagnosis + timely surgical intervention** = better outcomes
- **Surgical approach and tear characteristics** must guide post-op planning
- **Confounding factors** (psych, chronicity, secondary gain) require proactive strategy
- **Post-op success** depends on healing constraints, education, and realistic PT timelines
- **Physician communication** builds trust and sets expectations early
- **Rehab should evolve**: acute → functional → job-specific
- **Return-to-work plans** must be based on **actual job demands**
- **Collaboration** between physician, therapist, and case manager is **not optional — it's essential**

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THANK YOU!

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