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Type Two - Rotator Cuff Repair (Deltoid Splitting) Medium Tear (Stable Repair).

Phase I – Protection Phase (weeks 0-6).

Goals:

- 1. Gradual increase in range of motion.
- 2. Increase shoulder strength.
- 3. Decrease pain and inflammation.

Brace:

Week 1: Abduction pillow is worn full time.

Week 2-4: Abduction pillow is worn at night, pillow sling is worn during the day.

Week 5-6: Pillow sling is worn at night, regular sling by day.

Weeks 0-3:

- Sling worn as listed above and at physician's discretion.
- Pendulum exercises.
- PROM Exercises (L-Bar or cane exercise, supine, plane of scapula).
 - o Flexion to 125 degrees.
 - o ER / IR (shoulder at 40 degrees ABD) to 30 degrees.
- Passive ROM to tolerance.
- Rope and pulley (flexion only).
- Elbow ROM, hand gripping.
- Submaximal isometrics.
 - o Flexors.
 - o ER/IR.
 - o Elbow flexors.
- Modalities for pain and inflammation (ice, electric stimulation, 20% pulsed ultrasound at 0.5 w/cm2).

Weeks 3-6:

- Discontinue sling after week 6.
- Continue all exercises listed above.
- AAROM exercises.
 - o Flexion to 145 degrees.
 - o ER / IR (performed at 65 degrees ABD., range to tolerance.

Phase II - Intermediate Phase (week 7-12).

Goals:

- 1. Full, non-painful ROM.
- 2. Improvement of strength and power.
- 3. Increase functional activities; decreasing residual pain.

Weeks 7-10:

- AAROM exercises (L-Bar or cane).
 - o Flexion to 170-180 degrees.
 - o ER / IR performed at 90 degrees abduction of shoulder.
 - -ER to 75-90 degrees.
 - -IR to 75-85 degrees.
 - ER exercises performed with 0 degrees abduction of shoulder.
 - -ER to 30-40 degrees.
- Strengthening exercises for shoulder.
 - o Theraband exercises ER / IR arm at side.
 - Isotonic dumbbell exercises for:
 - Deltoid.
 - Supraspinatus.
 - Elbow Flexors.
 - Scapulae Muscles.
- Upper body Ergometer.

Weeks 10-12:

- Continue all above exercises.
- Initiate Isokinetic strengthening (Scapular plane).
- Initiate side lying ER / IR exercises (dumbbell).
- Initiate neuromuscular scapulae control exercises (PNF).

<u>Phase III – Advanced Strengthening Phase (weeks 13-21).</u>

Goals:

- 1. Maintain full, non-painful ROM.
- 2. Improve shoulder complex strength.
- 3. Improve neuromuscular control.
- 4. Gradual return to functional activities.



^{*}Full range of motion is goal of weeks 8-10.

Weeks 13-18:

- Active stretching program for the shoulder AAROM, L-Bar, or cane Flexion, ER, IR.
- Capsular Stretches.
- Aggressive strengthening program (Isotonic Program).
 - Shoulder flexion.
 - Shoulder abduction.
 - o Supraspinatus.
 - o ER/IR
 - o Elbow flexors / extensors.
 - o Scapulae muscles.
- Isokinetic test (modified neutral position indicated for athletes).
- (Week 14)
 - ER / IR at 180 and 300 degrees / second.
- General conditioning program.

Weeks 18-21:

- Continue all exercises listed above.
- Initiate interval sport program (return to throwing program etc.)

Phase IV - Return to Activity Phase (week 21-26).

Goals:

1. Gradual return to recreational sport activities.

Week 21-26:

- Isokinetic test modified neutral position (indicated for athletes).
- Continue to comply to interval sport program.
- Continue basic ten program for strengthening and flexibility (Maintenance).