## Humeral Shaft Functional Bracing Sarmiento Rehab Protocol

## KANDILNOTES

# PHASE 1: Time Frame: 0-4 weeks Immobilization:

- Sling Immobilizer / Brace with 15 degrees abduction x 4 weeks.
- Wear continuously except for therapy, HEP (home exercise program) and hygiene/bathing.

## **Restrictions**:

- No strengthening.
- Avoid aggressive stretching and rotational stress.
- Limit ER to neutral and IR to chest.

#### **Exercises**:

- Gripping exercises, elbow, wrist and finger ROM, shoulder pendulums, PROM/AAROM/AROM for shoulder should be slow and to tolerance.
- Instruct on HEP to perform twice daily.
- Modalities used as needed.

# PHASE 2: Time Frame: 4-8 weeks Immobilization:

■ None

#### Restrictions:

 No strengthening until fracture healing. Avoid pain, stretch to tolerable discomfort only.

#### **Exercises**:

- Gradually increases ROM exercises.
  Stretching should continue to be slow and to tolerance while avoiding pain.
- Modalities used as needed

# PHASE 3: Time Frame: 8-12 weeks Immobilization:

None

#### **Restrictions:**

- Exercise advancement should be gradual and in slow increments while avoiding pain.
- If patient develops pain, drop back to early phase of rehabilitation, until pain free.
- ROM restrictions: FF-none, ABD-none, IR-S1 or 20° in abduction, ER 20°.

#### Exercises:

- Continue with shoulder PROM, AAROM and AROM.
- At 8 weeks begin shoulder isometric strengthening with arms at side (IR, ER, scapular stabilization).
- At 10 weeks add shoulder resistance strengthening exercises. Progression should be gradual and in slow increments while avoiding pain.

# PHASE 4: Time Frame: 12-26 weeks Immobilization:

None

#### **Restrictions:**

- No specific restrictions.
- Patient's ROM, strength and endurance should be advanced progressively while avoiding pain.

### Exercises:

- ROM should be 85% normal or greater; if not, continue to address with stretching and a HEP.
- Progressive upper-body strengthening may be more aggressive after 16 weeks.
- Add plyometric training for athletes at 18 weeks.
- Add exercises simulating work requirements at 18 weeks as part of return to work program.





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# PHASE 5: Time Frame: 26+ weeks Goal:

 Restore normal shoulder function and progress to return to sport or return to work.

#### **Restrictions:**

- No specific restrictions. Advance progressively while avoiding pain.
- If the patient develops pain they are to return to earlier stage of rehabilitation.

## **Exercises**:

- Aggressive upper-body strengthening and with initiation of plyometric training and sports or work specific training.
- Consider work conditioning program based on patients job requirements and patient motivation.