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SHSS5063

Shoulder Case Study

Trawsnewid Addysg; Trawsnewid Bywydau
Transforming Education; Transforming Lives



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Successful Shoulder Rehab

- 18 year old rugby player undertakes a game and injures his shoulder
- He sustains an anterior dislocation to the left glenohumeral joint
- It is reduced in hospital and the player was sent away with an appointment for fracture clinic and a sling

Successful Shoulder Rehab

- Upon review with the orthopaedic's the player is informed that they are going to perform an investigation
- MR Arthrogram confirms a Bankart lesion, together with a Hill Sachs Lesion.
- The player is informed that he'll need an operation to resume playing competitive rugby.

Successful Shoulder Rehab

- Surgery is successful and the player leaves with a sling and some basic after care advice.
- He is given some pain relief and told to manage ADLs.

Initial Goals

- Protect repair
- Prevent immobilisation effects
- Promote dynamic stability
- Reduce pain and inflammation

Early Shoulder Rehab

- Sling for 2-3weeks
- Sleep with sling inside shirt
- Elbow/Hand ROM
- Hand grip exercises
- Initiate AaROM Flexion (70° 1/52, 90° 2/52)
- Initiate ER and IR with 30° Abd (ER 10° and IR to 45°).
- No combined ER and Abduction
- Submaximal isometrics and Proprioception

Early Shoulder Rehab

- Discontinue sling @ 3-4 weeks
- Sleep with sling inside shirt
- Elbow/Hand ROM
- Hand grip exercises
- Initiate AaROM Flexion 90*, Abduction 90*
- Initiate ER and IR with 30* Abd (ER 10* and IR to 45*).
- No combined ER and Abduction

Intermediate Shoulder Rehab

- Improve Flexion to 145*
- ER @ 45*Abduction (50-55*)
- IR @ 45*Abduction (55-60*)
- Start stretching exercises
- Initiate tubing exercises
- Scapular strengthening
- PNF manual resistance in safe zones

Intermediate Shoulder Rehab

- Progress to FROM
 - ER @ 90*Abduction (70-80*)
 - IR @ 90*Abduction (70-75*)
 - Continue stretching exercises
 - Progress isotonic exercises
 - Scapular strengthening
 - More aggressive strengthening
 - Continue PNF strengthening
- Medium Term Goals
- Full ROM
 - Preserve surgical repair
 - Restore strength and endurance
 - Enhance NM control

Late Shoulder Rehab

- Continue stretching exercises
 - Progress isotonic exercises
 - Scapular strengthening
 - More aggressive strengthening
 - Continue PNF strengthening
 - Start sports specific training
 - Throwing, catching, kicking
 - Initiate Plyometric once 75%-80% strength of contralateral limb
- Longer Term Goals
- Full ROM
 - Preserve surgical repair
 - Restore strength and endurance
 - Enhance NM control

Pre D/c Shoulder Rehab

- Continue stretching exercises
 - Continue isotonic exercises
 - NM Drills
 - Continue PNF strengthening
 - Sports specific training
 - Throwing, catching, kicking, contact
 - Continue Plyometric
- End Stage Goals
- Full ROM
 - Isok L=R
 - Stability I+R
 - No pain

Successful Shoulder Rehab – The Pitfalls

- Failure to perform a complete and thorough assessment
 - Shoulder complex
 - Trunk
 - Pelvis
 - Lower limb
- Failure to assess and address scapulohumeral dysfunction
 - Proximal stability before distal
 - Be aware of capsular issues

Successful Shoulder Rehab – The Pitfalls

- Failure to understand the mechanics and demands of the activities to which the patient is returning
 - Has the kinetic chain been considered
- Failure to deal with hypomobility early in treatment to ensure that the joint can regain normal arthrokinematic movement.
 - Posterior GH capsule
 - GIRD (medial rotation tightness)
 - Imbalance between ER/IR
 - Thoracic Spine, Ribs
 - PecMajor/Minor
 - IGHL tightness

Successful Shoulder Rehab – The Pitfalls

- Failure to make sure that stretches are performed properly
 - Sleeper stretches
 - HBH, HBB
 - Scarf stretch
- Failure to control pain, fatigue and painful movement
- Failure to correct poor posture
 - Reducing pressure on anterior labrum
 - Neutral pelvis
 - Trunk alignment and Rib Mobility
 - Reduce Protraction

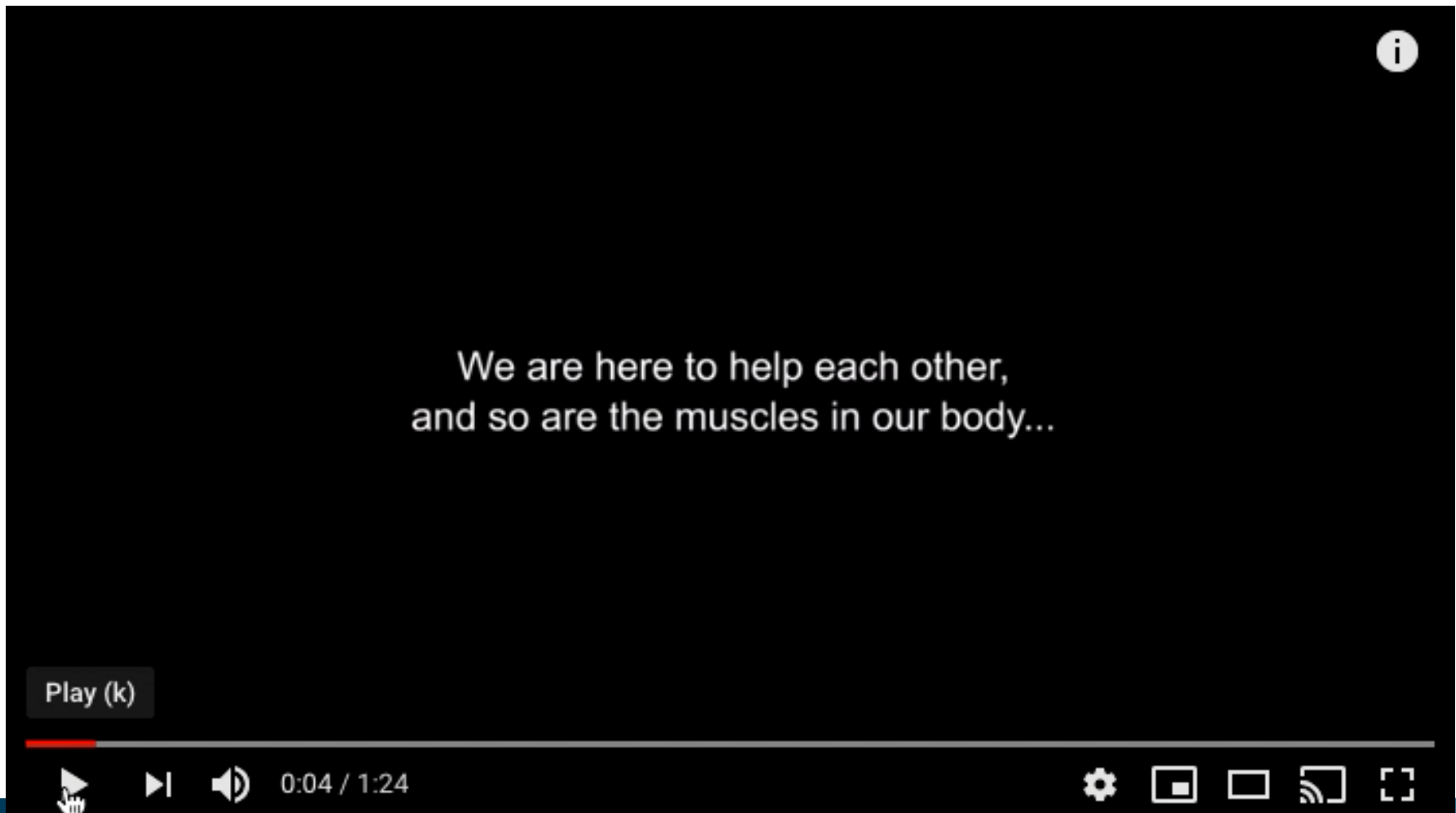
Successful Shoulder Rehab – The Pitfalls

- Failure to control for fatigue and compensating postures
 - Numbers that they can perform with optimal control.
 - Common errors include erratic movement, incorrect movement patterns, breath holding, inability to 'hit' target, phasic movement, catching movements
- Failure to note habitual exercises performed in compensatory postures.
 - See next slide

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Successful Shoulder Rehab – The Pitfalls



Successful Shoulder Rehab – The Pitfalls

- Failure to select appropriate (low risk) exercises.
 - Focus on exercises that promote GH compression (wiper drills, stick drills, Hawkins position, plank, lateral and V plank)
 - Shoulder depression exercises, punch outs, hugs and plus exercise
- Failure to create an exercise program or to make use of functional patterns in latter stages of rehabilitation that integrate lower extremity and trunk movements.

Successful Shoulder Rehab – The Pitfalls

- Failure to rehabilitate the deceleration (eccentric) component of shoulder activity.
 - Controlled eccentric lengthening of muscles, especially the posterior shoulder muscles
- Failure to address proprioception (static) and kinesthesia (dynamic).
 - Rhythmic holds, Eccentric PNF and closed chain exercise
 - Plyo's, throwing and catching, balance and falls, functional tasks.

Successful Shoulder Rehab – The Pitfalls

- Failure to take the time to work one on one with the patient
 - Individualised, correct patterns and postures
- Failure to integrate the patient into the treatment programme
 - Educate, Educate, Educate.
- Failure to use caution when using exercise machines
 - Isolated generally, increased shear forces
- Failure to maintain or restore an appropriate fitness level
 - Maintaining other CV benefits