Shoulder Subluxation: Effective Treatment Approaches

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Shoulder Review
What do you know?

- A-C Joint: upper scap/clavicle (shrug)
- Glenohumeral Joint: glenoid fossa of scap/humerus (all shoulder motions)
- Sternoclavicular Joint: clavicle/sternum (shrug, stabilize)

- Scapula 2:1
Shoulder Review

MM: move/stabilize

- Flexion: pec major, deltoid (ant), coracobrachialis.
- Abduction: deltoid, supraspinatus.
- Adduction: subscapularis, pec major, weight of arm.
- ER: infraspinatus, teres minor
- IR: subscapularis, latissimus dorsi, teres major, pec major, deltoid (ant)
Shoulder Review
“SITS”
Muscles of the RTC

- IR: Subscapularis
- ER: Infraspinatus, Teres Minor
- ABD: Supraspinatus
- ADD: Subscapularis

“Raise & Rotate”
- Stabilize-Proximal Stability/Distal Mobility
- Depress the humeral head against the glenoid. (Subscapularis) (Tear: humeral head can migrate upward because of opposing force of deltoid.)
Shoulder Review

- Scapular Stability: trapezius, serratus anterior, rhomboid.
- Scapular Upward Rotation: trapezius, serratus anterior.
- Scapular Retraction: trapezius, rhomboids.
- Postural Support: levator scapulae, upper trap.
- Overhead Stability: coracobrachialis.
- Scapular Rotation: trapezius, serratus anterior, rhomboid, levator scapulae
Assessment

- pain, instability, stiffness, locking, catching, swelling.

- Dislocation, Arthritis, Adhesive Capsulitis: stiffness, loss of motion.
- Labral Disorder: pain or ‘clicking’ with overhead motion.
- Impingement: Nighttime shoulder pain.
- Scapular Winging: serratus anterior, trapezius

- Neck pain and pain that radiates BELOW the elbow are often cervical spine disorder.
Shoulder Subluxation

- Mobility of shoulder makes it vulnerable for injury
- Partial dislocation
- tone
- pain
- swelling
- weakness
- Numbness

Separation of the joint as a result of paralysis or weakness of the rotator cuff muscles & spasticity of the scapular muscles

Absence of normal scapular-humeral rhythm
Sensory-Motor Premise to Recovery

- Motor control is the ability to make dynamic postural adjustments and direct body and limb movement in purposeful activity.

- Components necessary include:
  - normal muscle tone
  - normal postural tone and normal postural reflex mechanisms
  - selective movement/coordination.
  - Postural alignment
  - Proprioception/kinesthesia
    - Proprioception, which overlaps with kinesthetic awareness, provides a sense of body symmetry, or necessary balance and positioning between body parts, and specifically refers to a sense of joint position.

- The cerebral cortex, basal ganglia, and cerebellum work together to make motor control possible.
NORMAL POSTURAL REFLEX MECHANISM

- Sensory Environment
- Selective
  Voluntary
  Movement
- Postural Control
  Equilibrium Reactions
- Protective Reactions
- Righting Reactions
- Integrated Primitive Reflexes & Mass Patterns
- Normal Postural Tone

Sensory Environment

Courtesy: Jan Ullev (RIC)
OT Tx Considerations: Subluxation

- Alignment/Positioning
- Tone
- Weight Bearing-Approximation
- Proprioception/Dynamics
- Normal Movement Patterns
- Repetition/Time
- Consideration of Pain
What is making Gravity NOT Work?

Continual Assessment of Key Points of Control
Alignment, ROM, Static vs Dynamic

- Codman’s Exercise/Pendulum vs. Gravity Eliminated
Weight Bearing
Dynamics Where There Isn’t Any
Recognize the Sequence of Recovery

...for all diagnoses!
UE Ranger Magic!

Fluid, resistant-free patterned movement
Mobile Arm Support
Segmental Reach/Eye-Hand Coordination/Posture/Wt Shift
Scapula-Beautiful Symmetry
Sustained Suspension w/Tension Sensory-Motor Benefits of Dynamics
Treatment

- Dynamic Positioning/Antispasticity Ball Splint
- Alignment/Minimal use of W/C
- Passive Patterned Motion through all planes
- Weightbearing (Approximation/Traction)
- Movement on/off of Affected UE/Reach Patterns
- Normal Movement Patterns
- Giv-Mohr Sling
- UE Ranger
- Kinesiotape
Soft tissue can become overstretched from the effects of gravity and improper handling of the arm. Stroke patients who have their arm unsupported and/or handled inappropriately (i.e. pulling on the arm) are at higher risk for traction neuropathy and injury.
Giv-Mohr Sling

https://www.givmohrsling.com/research.htm#Dec05
Kinesiotape
Antispasticity Ball Splint
Alice found that throwing horseshoes was more fun if you aimed at people instead of a little stick in the ground.