Shoulder Rehabilitation

• Anatomy Review
• Muscle Testing Review
• Common Problems
• Treatment
Anatomy Review - Shoulder

• Pectoralis minor
  – Common TOS provoker
  – Tension rolls gleno-humeral joint anterior
  – Tightness common with forward rolled posture
Anatomy Review - Shoulder

- Latissimus dorsi
  - Inhibited by: thoracic fixations & C1
  - Major posterior postural stabilizer
  - Readily inhibited by foot dysfunction
  - Weakness allows anterior glenohumeral displacement
Anatomy Review - Shoulder

- Infraspinatus & Teres minor
  - Inhibited by fixation in lower cervical spine
Anatomy Review - Shoulder

- Deltoid
  - Anterior
  - Middle
  - Posterior
- Fixation mid to lower cervical will inhibit
Anatomy Review - Shoulder

• Rhomboids
  – Inhibited by both lower cervical & thoracic fixations
  – Inhibited by excessive flexor tone
  – Under used by most patients
Anatomy Review - Shoulder

• Supraspinatus
  – Inhibited by mid to lower cervical fixations
Anatomy Review - Shoulder

• Subscapularis
  – Tendon easily entrapped as it passes through the gleno-humeral joint
  – Increased wear & tear with advancing age
Evaluation

• History
• Orthopedic, neurological & physical
  – Remember probing palpation of soft tissue structures to patient tolerance
• Radiographic
• Chiropractic spinal analysis
• Selective muscle testing
Radiographic

Osteonecrosis, both humeral heads, due to steroids used to treat this patient's chronic leukemia
Tendonitis, Capsulitis & Bursitis

• Uneven balance of forces across a joint
• Impingement of soft tissues
  – Tendons, bursa & joint capsule
  – Vascular components (TOS)
  – Neurological entrapment
• Improper coupled motions across joint
• Excessive wear and tear of soft tissues
Myofascial Pain

Prime Mover - weak

Synergist - overworked

Antagonists – hypertonic
Myofascial Pain - Triggers

- Pressure – direct contact by leaning
- Stretching – passively while sleeping or indirectly during activity
- Use – contraction, especially with considerable resistance or posturally

Myofascial Pain - Treatments

- Pressure – ischemic compression
- Stretching – gentle, slowly, regularly
- Use – low resistance, aerobic style
Trigger Points

• Latissimus Dorsi
  – Mid-thoracic
  – Posterior scapula
  – Anterior shoulder
  – Entire arm to hand
Trigger Points

- Subscapularis
  - “Frozen Shoulder”
  - Posterior shoulder
  - Arm
  - Wrist
Trigger Points

• Teres major
  – Similar to latissimus dorsi
  – Deltoid & arm pain
Trigger Points

- Deltoid
  - Local pain at shoulder
Trigger Points

- Coracobrachialis
  - Similar to deltoid
  - Arm, forearm & wrist
Trigger Points

- Biceps brachii
  - Pain lateral shoulder
  - Pain anterior elbow
Trigger Points • Supraspinatus

- Mimics subdeltoid bursitis
- Elbow, arm & forearm
Treatment Steps

• Pain relief
  – Ice, modalities (electrical stimulation, ultrasound)
  – Possible start trigger point release work

• Kinsiotaping

• Passive motion

• Manipulation when applicable

• Gentle resistance within non-painful range

• Gradual increase in range and resistance
Kinesiotaping - Shoulder

Frozen Shoulder Pattern
Kinesiotaping Resources

• Book- author: Kenzo Kase
• Website: http://www.kinesiotaping.com
Passive Motion

- Pendulums or Codman’s arm swing
Passive Motion

- Wall walking
Resistance Exercises

- Internal Rotation
  - Pectoralis major
  - Subscapularis
Resistance Exercises

- External Rotation
  - Teres minor
Resistance Exercises

• Abduction
  – Supraspinatus
  – Deltoid
Resistance Exercises

• Scapular Retraction
  – Rhomboids
  – Trapezius

• Scapular “Fixing”
  – Subscapularis