



TRIGGERPOINT

Corrective Exercise for the Problem Shoulder



Agenda

- Anatomy
- Positioning/Dysfunction
- Assessments
- Mobility
- Stability
- Strength



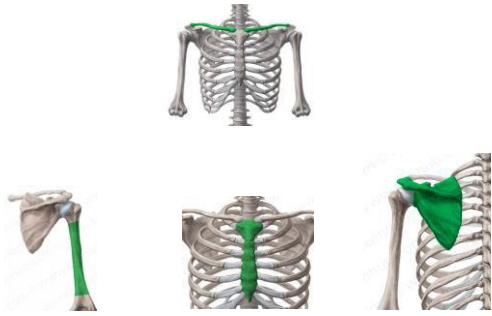
Corrective Ex for the Shoulder

Skeletal Anatomy



Corrective Ex for the Shoulder

Skeletal Anatomy



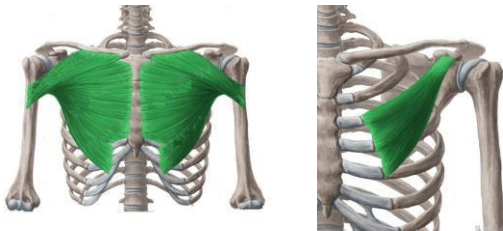
Corrective Ex for the Shoulder

Muscular Anatomy



Corrective Ex for the Shoulder

Pectorals



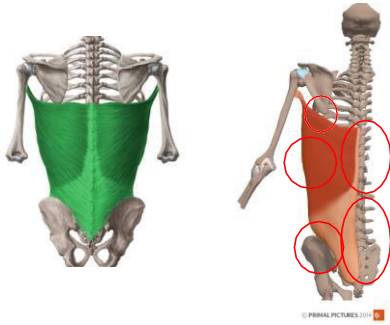
Corrective Ex for the Shoulder

Levator scapula



Corrective Ex for the Shoulder

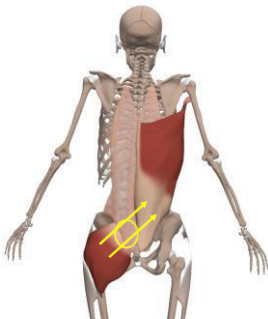
Latissimus dorsi



© PHOTOFEST/GETTY IMAGES

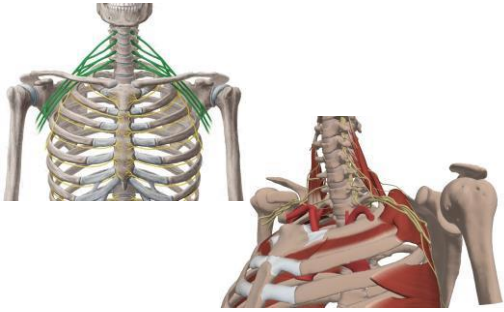
Corrective Ex for the Shoulder

Posterior oblique subsystem

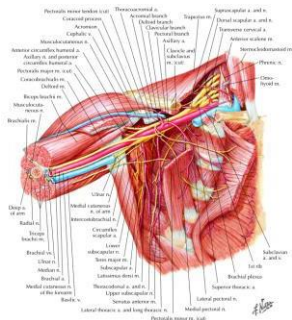


Corrective Ex for the Shoulder

Brachial Plexus



Corrective Ex for the Shoulder



Corrective Ex for the Shoulder

Kinetic Chain



Corrective Ex for the Shoulder

Posture

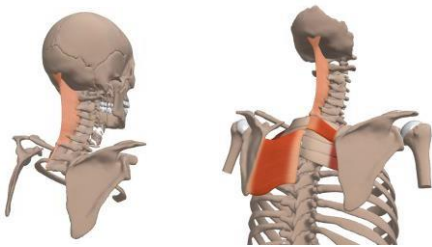


- Forward head posture
- 1"=10lbs
 - Loads exceed tissue tolerance
 - Decreased lung capacity
 - Increased stress

Kapandji, I.A. (2007). *The physiology of the joints* (6th ed.). Philadelphia, PA: Elsevier Health Sciences

Corrective Ex for the Shoulder

What "allows" forward head?



Nuchal Ligament

Corrective Ex for the Shoulder

What "allows" forward head?



Corrective Ex for the Shoulder



Shoulder Assessments

Corrective Ex for the Shoulder



Assessing the Shoulder



Riddle, D.L., Rothstein, J.M., & Lamb, R.L. (1987). Goniometric reliability in a clinical setting: Shoulder assessments. *Physical Therapy*, 67, 668-673

Corrective Ex for the Shoulder



Subacromial Impingement



Silva, L., Andreu, J.L., & Munoz, P. (2008). Accuracy of physical examination in subacromial impingement syndrome. *Rheumatology*, 47, 679-683

Corrective Ex for the Shoulder

Supine Flexion



Riddle, D.L., Rothstein, J.M., & Lamb, R.L. (1987). Goniometric reliability in a clinical setting: Shoulder assessments. *Physical Therapy*, 67, 668-673.

Corrective Ex for the Shoulder

GH Internal Rotation



Borstad, J.D., Mathiowetz, K.M., & Minday, L.W. (2007). Clinical measurement of posterior shoulder flexibility. *Manual Therapy*, 12, 386-389.

Corrective Ex for the Shoulder

Thoracic Rotation

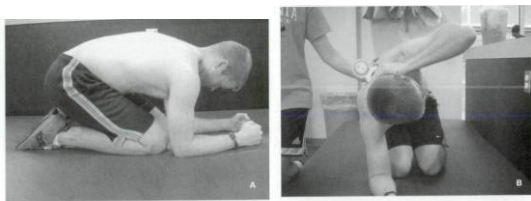


Figure 5. Lumbar-locked rotation test.

Johnson, K.D., Kim, K.M., Yu, B.K., Saliba, S.A., & Grindstaff, T.L. (2012). Reliability of thoracic spine range of motion measurement in healthy adults. *Journal of Athletic Training*, 46(1), 52-60
Neumann, D.A. (2002). Shoulder complex. In: *Kinesiology of the musculoskeletal system: Foundations for physical rehabilitation*. 189-248. St. Louis, MO: Mosby

Corrective Ex for the Shoulder

Thoracic Rotation

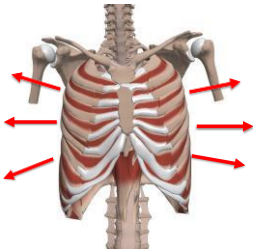


Figure 2. Seated rotation test.

Johnson, K.D., Kim, K.M., Yu, B.K., Saliba, S.A., & Grindstaff, T.L. (2012). Reliability of thoracic spine range of motion measurement in healthy adults. *Journal of Athletic Training, 46*(1), 52-60
Neumann, D.A. (2002). Shoulder complex. In: *Kinesiology of the musculoskeletal system: Foundations for physical rehabilitation*. 189-248. St. Louis, MO: Mosby

Corrective Ex for the Shoulder

Breathing



Gulick, D. (2009). *Ortho notes clinical examination pocket guide* (2nd ed.). Philadelphia, PA: FA Davis

Corrective Ex for the Shoulder

Practical Application—SMR

1. Thoracic Spine
2. Pectorals
3. Latissimus dorsi
4. Posterior deltoid
5. Levator scapulae
6. Biceps

Corrective Ex for the Shoulder

Thoracic Spine



Corrective Ex for the Shoulder

Pecs



Corrective Ex for the Shoulder

Latissimus Dorsi



Corrective Ex for the Shoulder

Posterior Deltoid



Corrective Ex for the Shoulder

Levator Scapula



Corrective Ex for the Shoulder

Biceps



Corrective Ex for the Shoulder

Practical Application—Lengthening

1. Pectoral stretch
2. Latissimus dorsi stretch
3. Thoracic extension
4. Thoracic rotation

Corrective Ex for the Shoulder

Pec Stretch



Corrective Ex for the Shoulder

Lat Stretch



Corrective Ex for the Shoulder

☒ Thoracic Extension



Corrective Ex for the Shoulder

☒ Thoracic Rotation




Corrective Ex for the Shoulder

☒ Stabilize or Strengthen?



“Compression structures fall due to a lack of stability, not strength”
James Edward Gordon, *Structures or Why Things Don't Fall Down*

Corrective Ex for the Shoulder

 Internal rotators—non-weight bearing




Corrective Ex for the Shoulder

 Internal rotators—weight bearing



Corrective Ex for the Shoulder

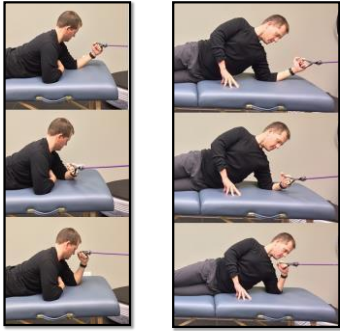
 External rotators—non-weight bearing



Sakita, K., Seeley, M.K., Myrer, J.W., & Hopkins, J.T. (2015). Shoulder-muscle electromyography during shoulder external rotation exercises with and without slight abduction. *Journal of Sport Rehabilitation*, 24, 109-115

Corrective Ex for the Shoulder

External rotators—weight bearing



Corrective Ex for the Shoulder

Complex Stability



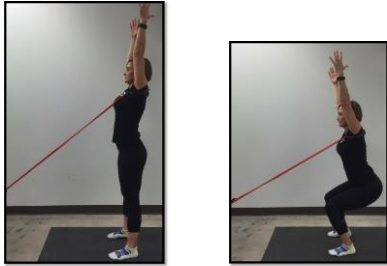
Corrective Ex for the Shoulder

Complex Movement



Corrective Ex for the Shoulder

✎ Total Body Integration



Corrective Ex for the Shoulder

✎ Reactive



Corrective Ex for the Shoulder

✎ Example Template

	Exercise	Time/Reps	Sets
SMR	T-spine, pecs, lats, levator, post. delt	30-60 seconds	1
Stretch	Pecs, lats, extension, rotation	30-45 seconds	1
Stabilization/Activation	Retraction, depress, eccentric scaption, plank, IR, ER,	12 repetitions	2-3
Complex	Bear crawl, Crab walk, Modified down dog	12 repetitions	2-3
Total Body	Squat w/shoulder RNT	12 repetitions	2-3
Reactive	Side plank ball throw	8 each side	2-3

Corrective Ex for the Shoulder
