

BI 199 APWT Discussion 20

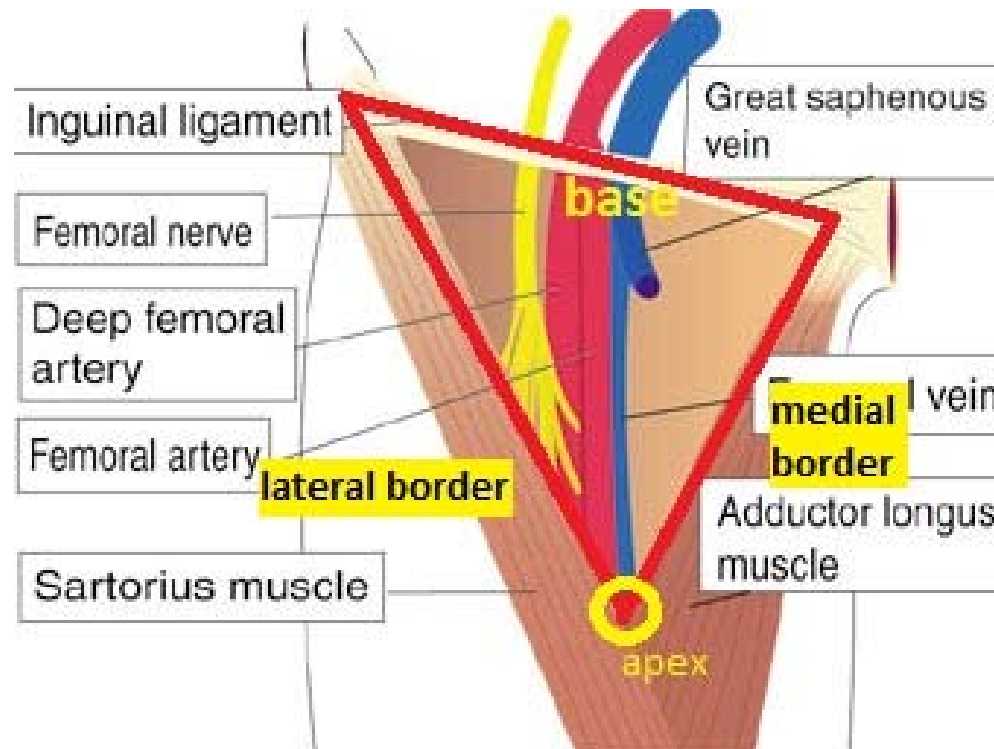


...Our last session! We had fun!
Best of luck with exams!

- I. Announcements Remember final 1-page review due by next Tuesday. Send .doc/.docx file by e-mail attachment to: lombardi@uoregon.edu Q?
- II. Review of Anatomy Lab 4 Treasure Hunt
- III. Final Comments
- IV. 1st Year Programs Course Evaluations
- V. Healthy Snacks Retreat!

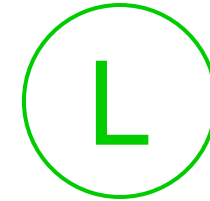
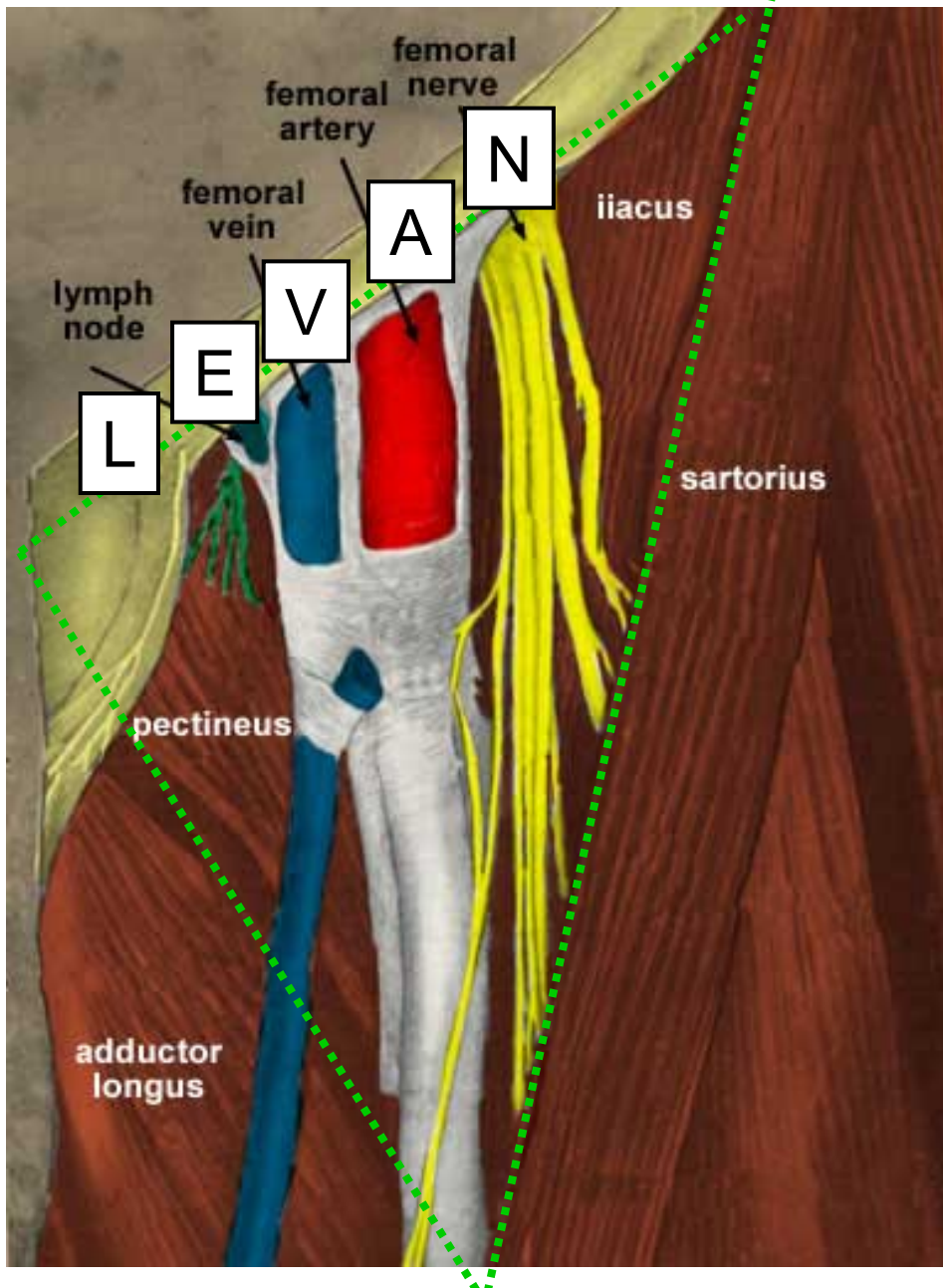
- **Femoral triangle** is 1st aid pressure point
- List in order from **lateral to medial**: *arteries, empty, lymphatics, nerves, veins*
- Does **1st letter** of each structure **spell a word**?
- Nerve or artery **injured** what **muscles** affected?

R



Which side? Mnemonic? Which muscles affected?

Gr. of memory!



NAVEL

Thigh Muscles –
1^o Anterior

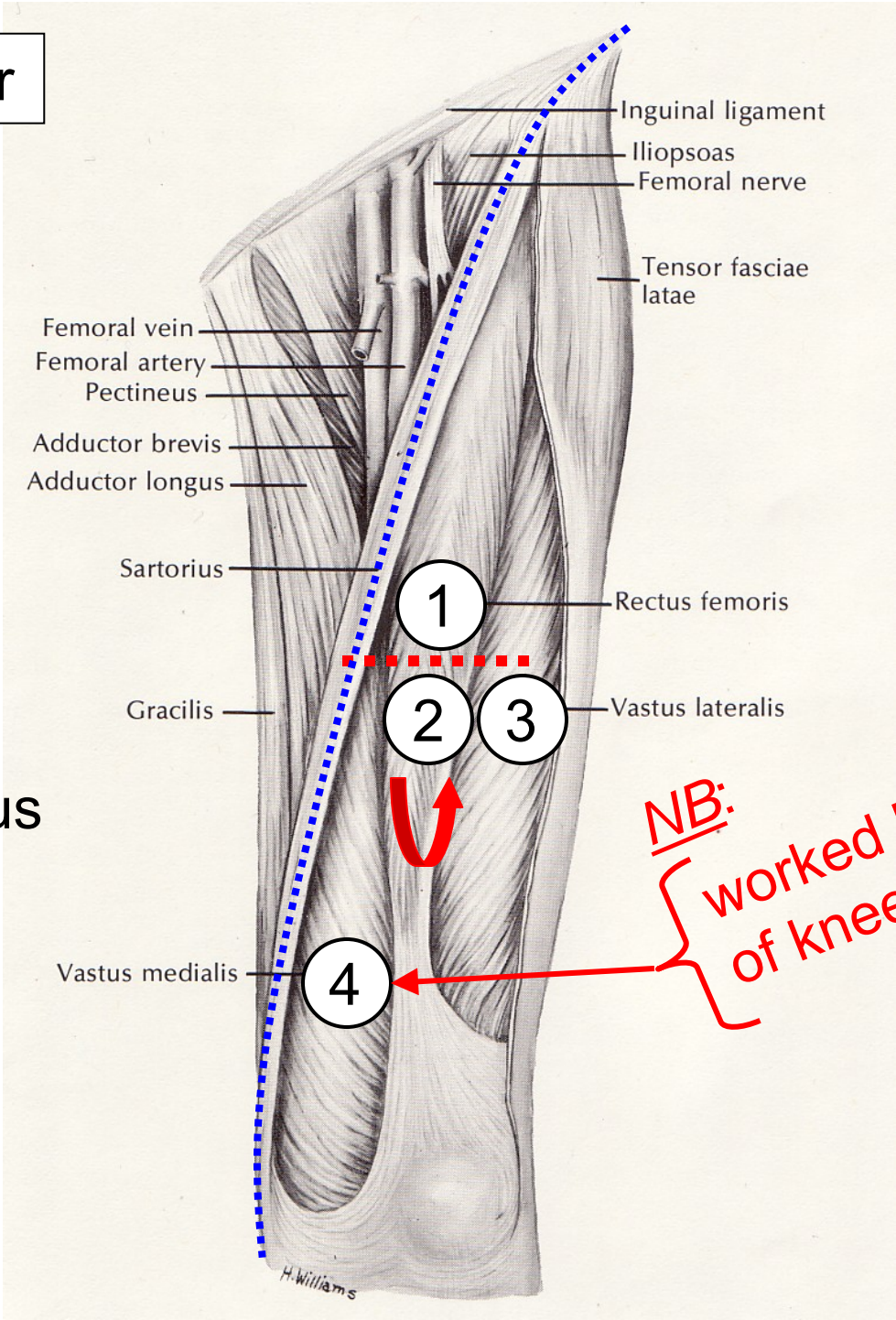
Hip Flexion & Knee
Extension Weakness!
+ Sensory Loss

http://www.dartmouth.edu/~anatomy/Lower_extremity/nerves/tutorial/femoral.htm

L thigh anterior

Quadriceps

- ① Rectus femoris
- ② Vastus intermedius
- ③ Vastus lateralis
- ④ Vastus medialis



Sartorius

NB:
worked last 10-150
of knee extension

L thigh anterior & medial

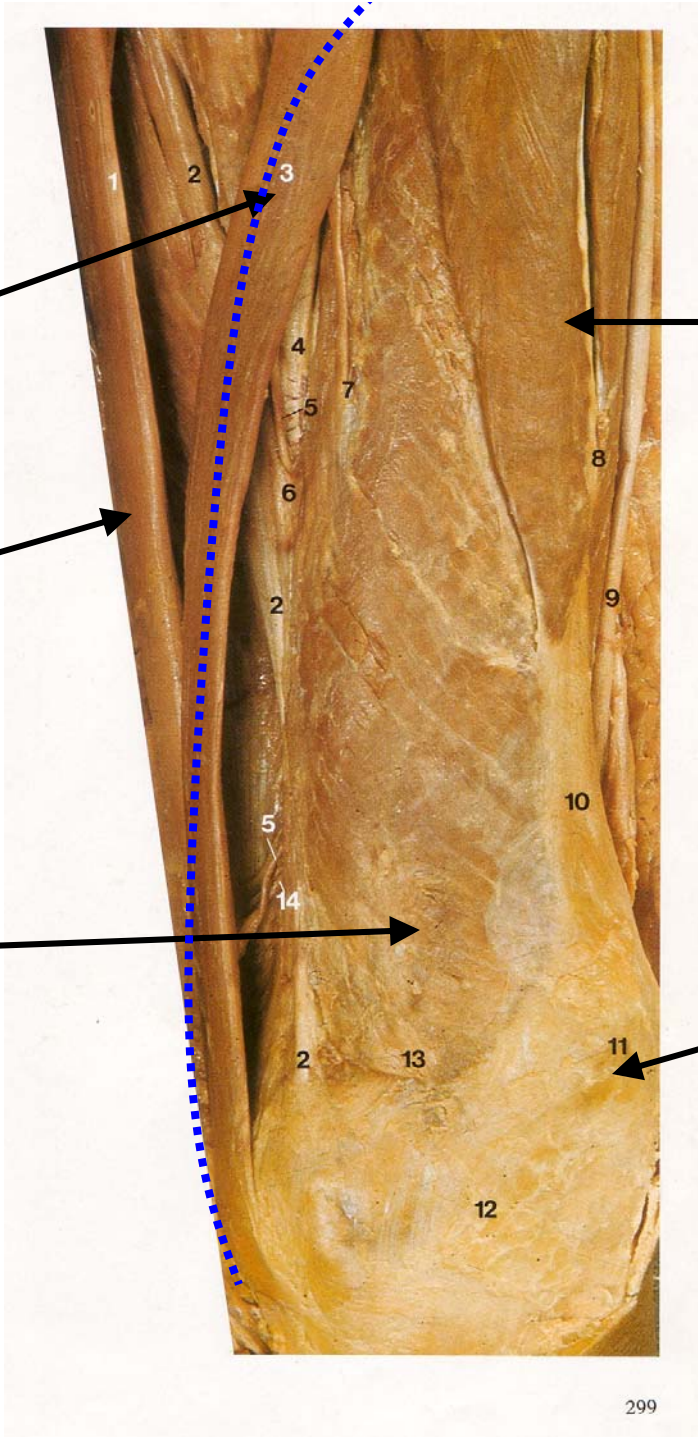
Sartorius

Gracilis adductor

Vastus medialis

Rectus femoris

Patella/kneecap



Which sport or activity uses this muscle extensively?



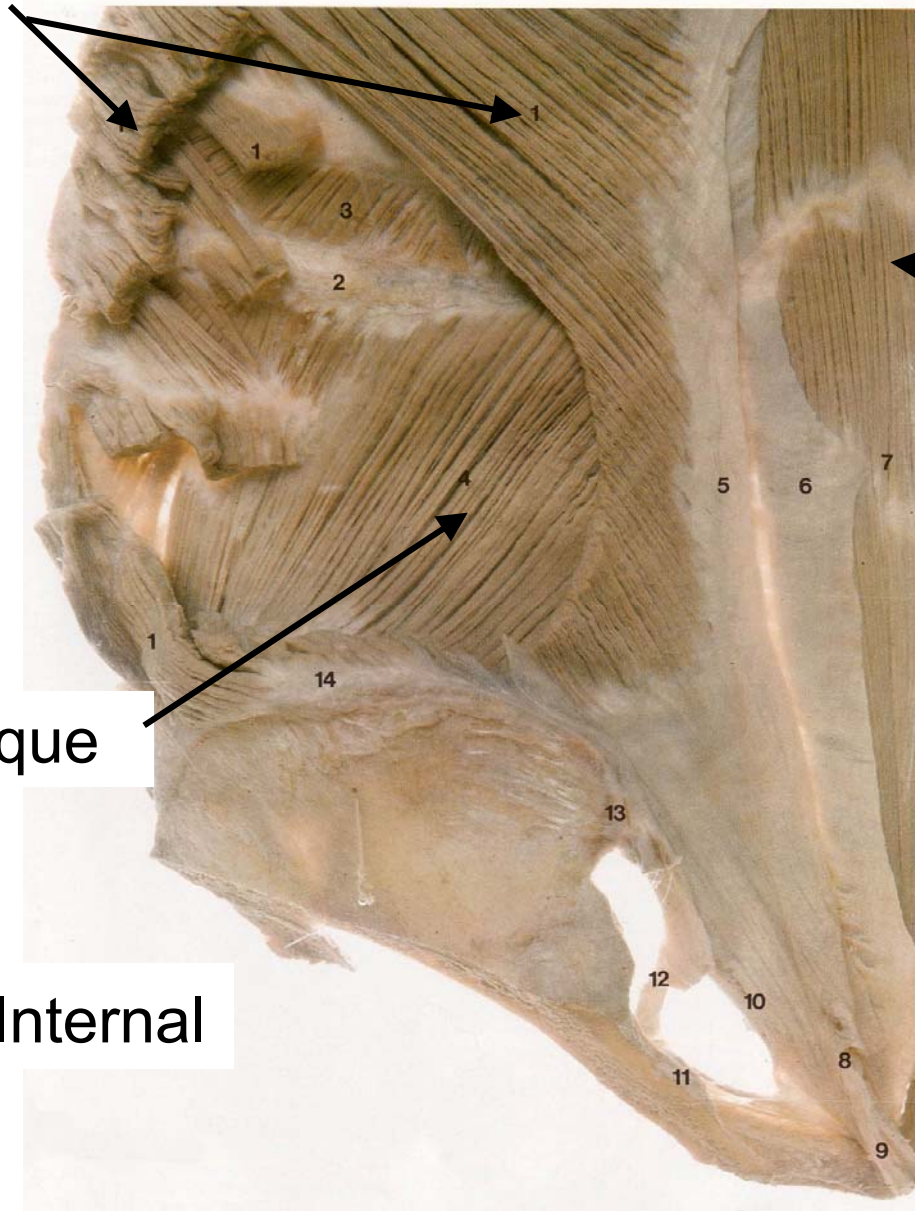
Svetlana Zakharova
Bolshoi Ballet
Leah Rankine, Medical
College of Wisconsin
<http://dancingsurgeon.blogspot.com/>

Abdominal muscle layers?

Q3

External oblique

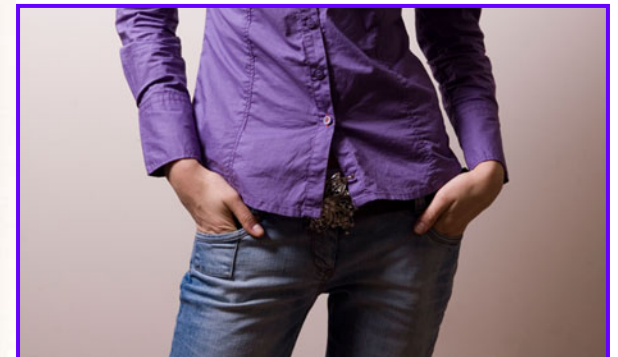
(R)



Rectus abdominis

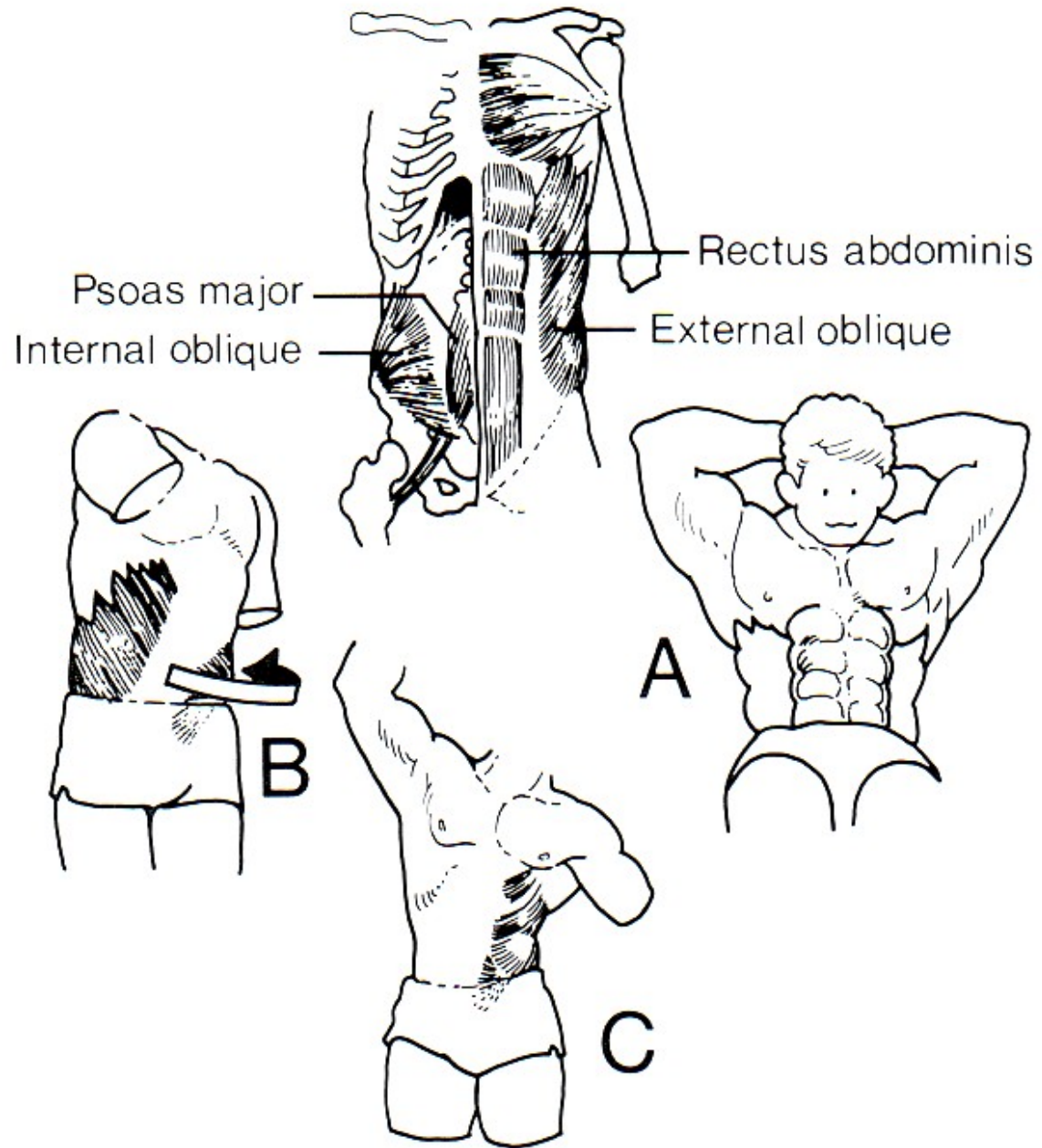
Internal oblique

External \perp Internal

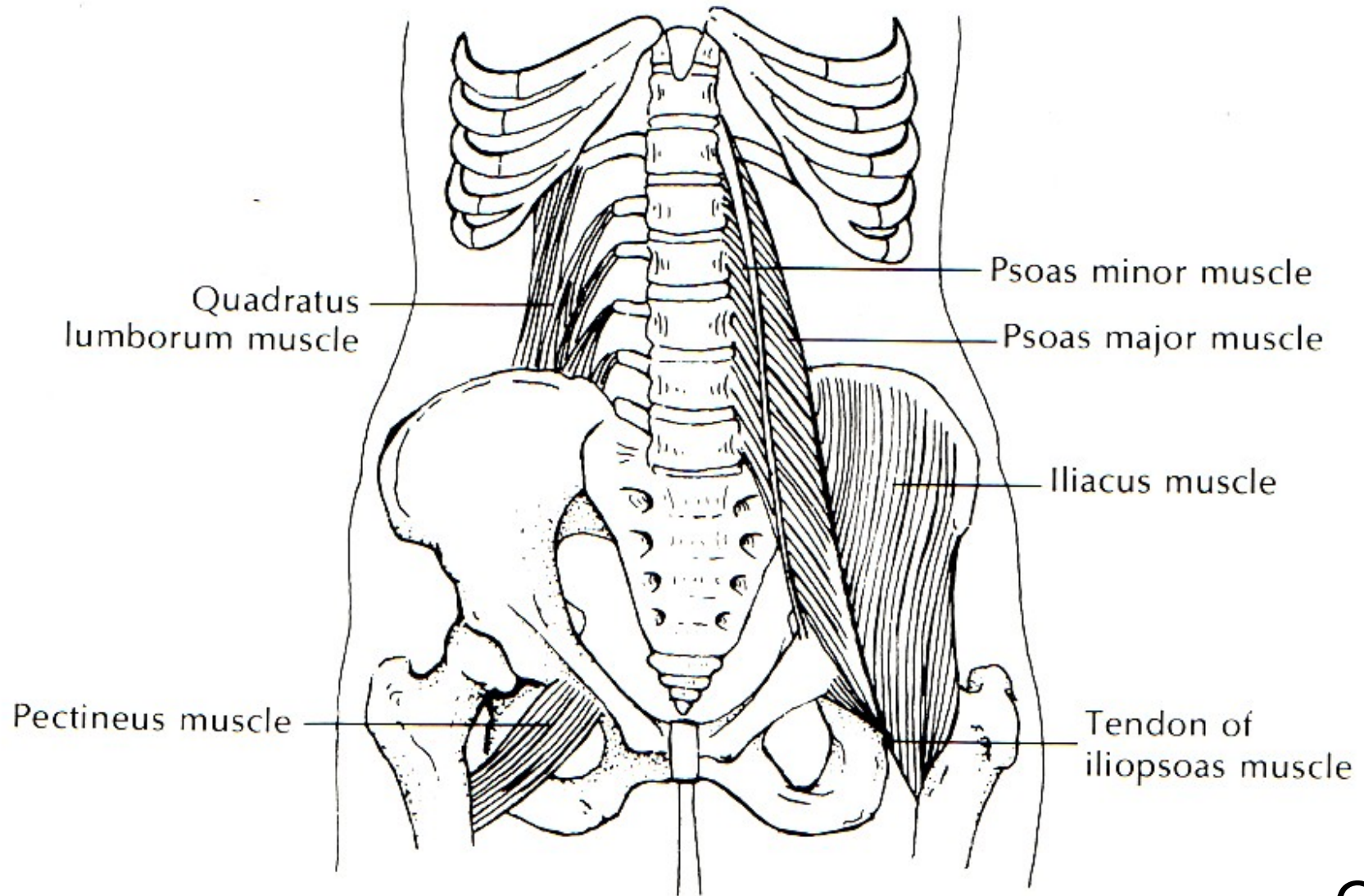


External \rightarrow
Hands in pockets!

Counter-clockwise motion?

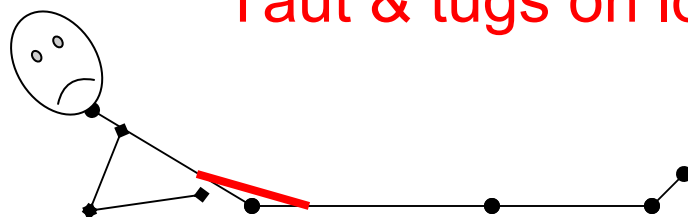


Hip flexors? Iliopsoas? Why flex hips & bend knees?



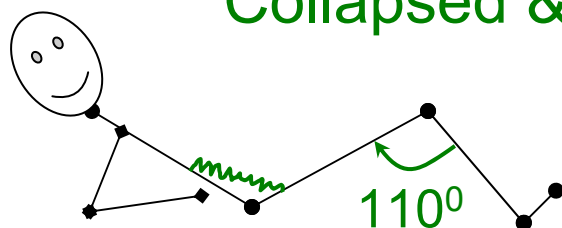
Iliopsoas with *Knees Straight* vs. *Bent*?

Taut & tugs on lower back!



Knees Straight

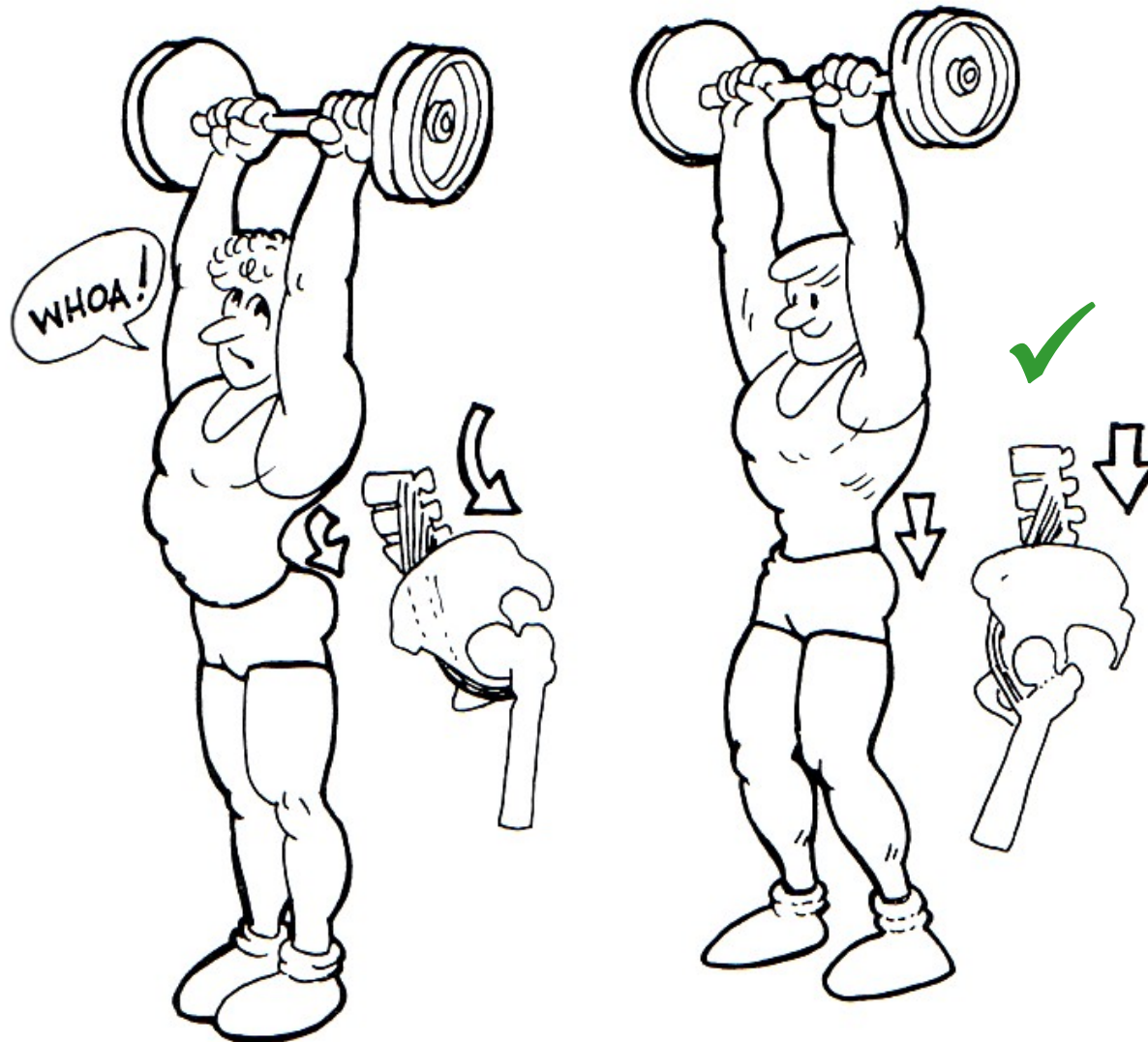
Collapsed & relieves stress!



Knees Bent

Hip Flexors? *Iliopsoas, rectus femoris, sartorius*
Feet Anchored vs. *Unanchored*? *Unanchored*

**Contract abdominals, bend knees,
widen stance to reduce back stress!**



ID + what bones make up AC, SC joints?

Q5

Acromioclavicular Tear

Normal Acromioclavicular Joint

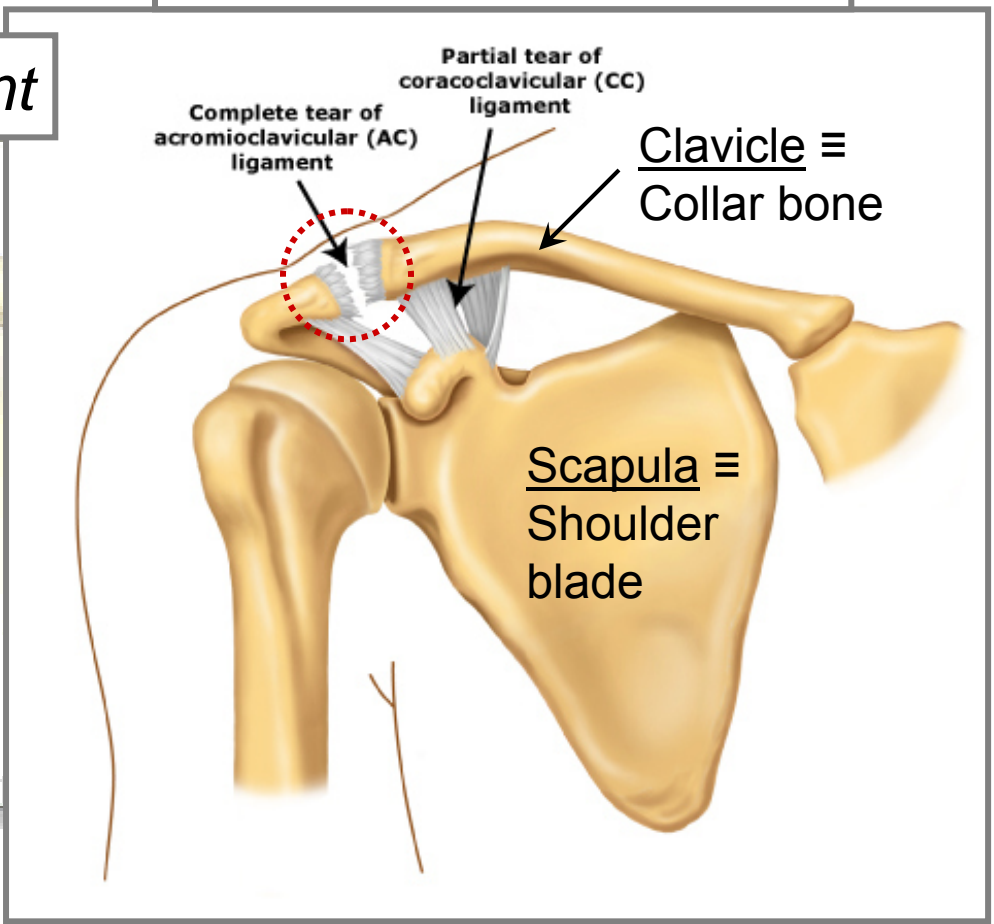
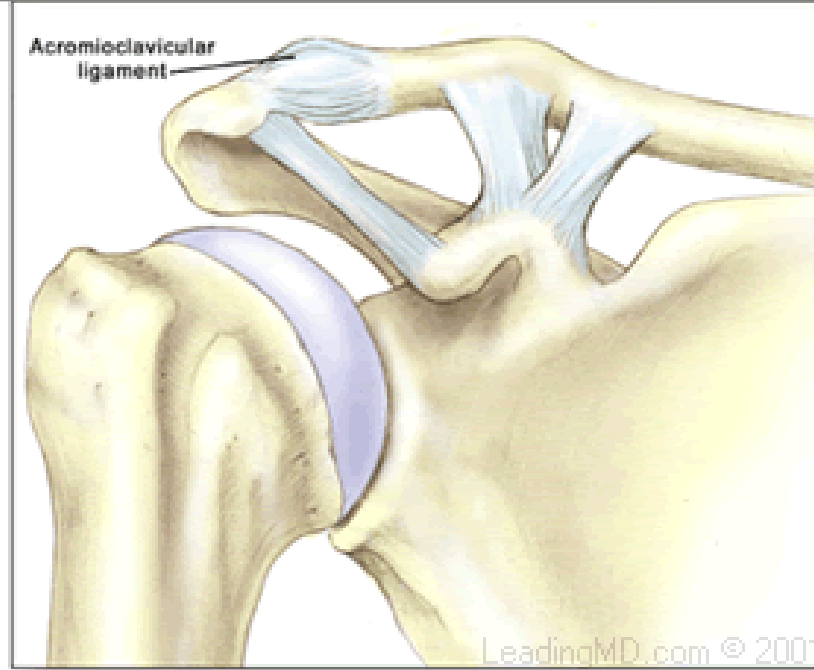


Image Sources: <http://thesteadmanclinic.com>, <http://www.buildingthedam.com>

AC Separation: X-ray & Combined Surface Anatomy

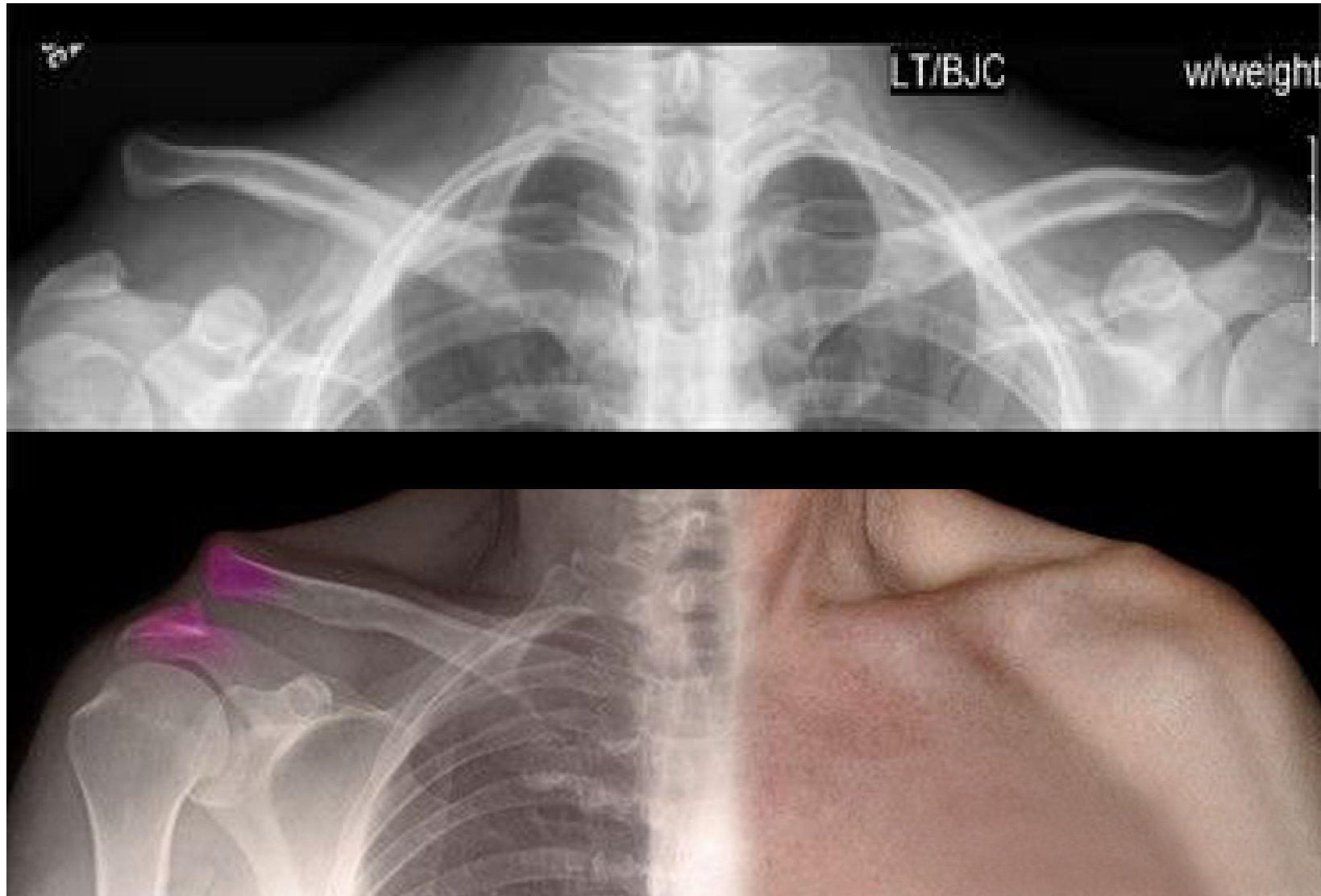


Image Sources: <http://johnpostmdsblog.blogspot.com/>, <http://www.sportsmed.org>,
<http://deepvisual.webs.com>

Sternoclavicular or SL Joint

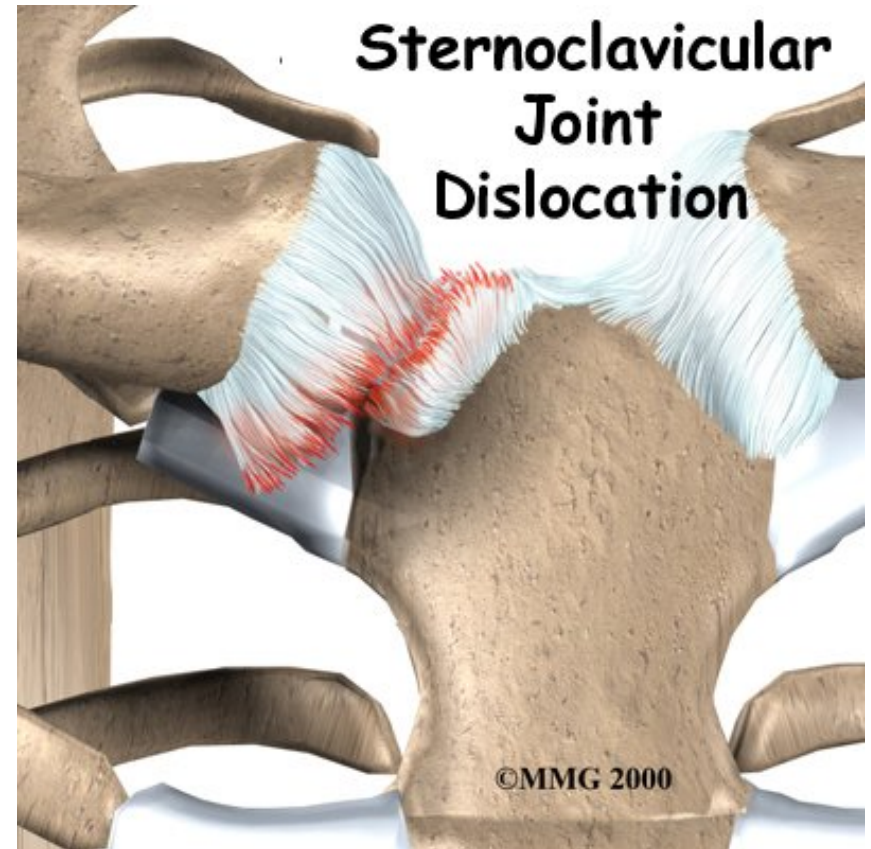
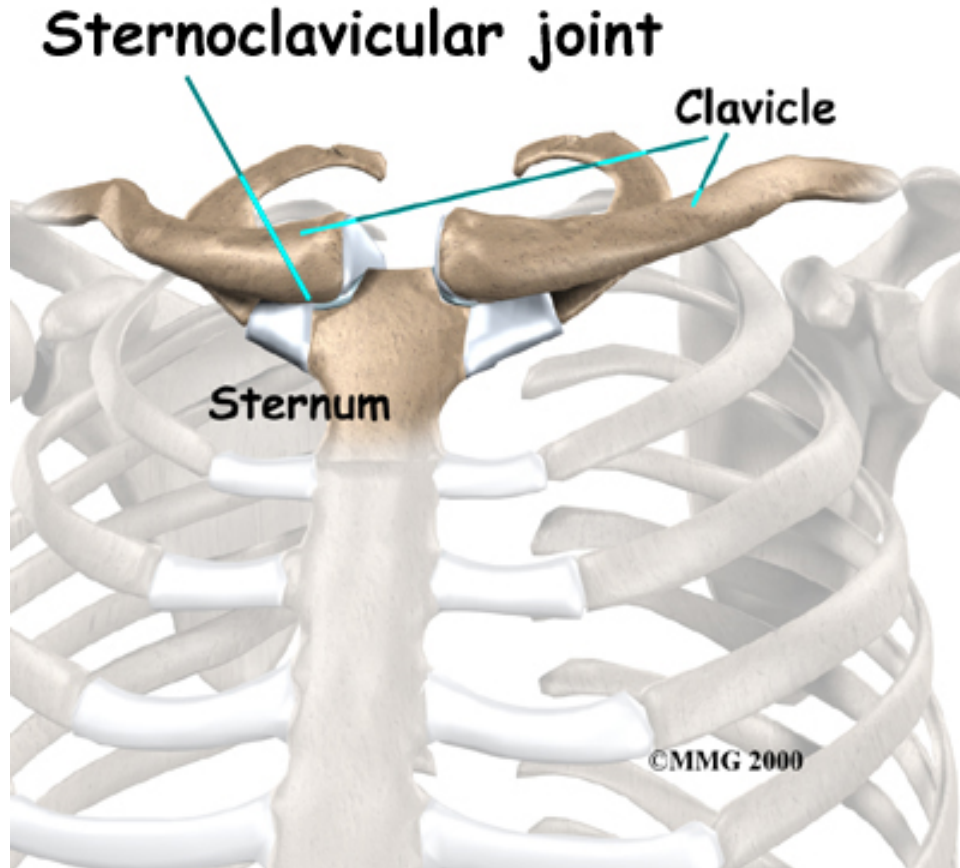
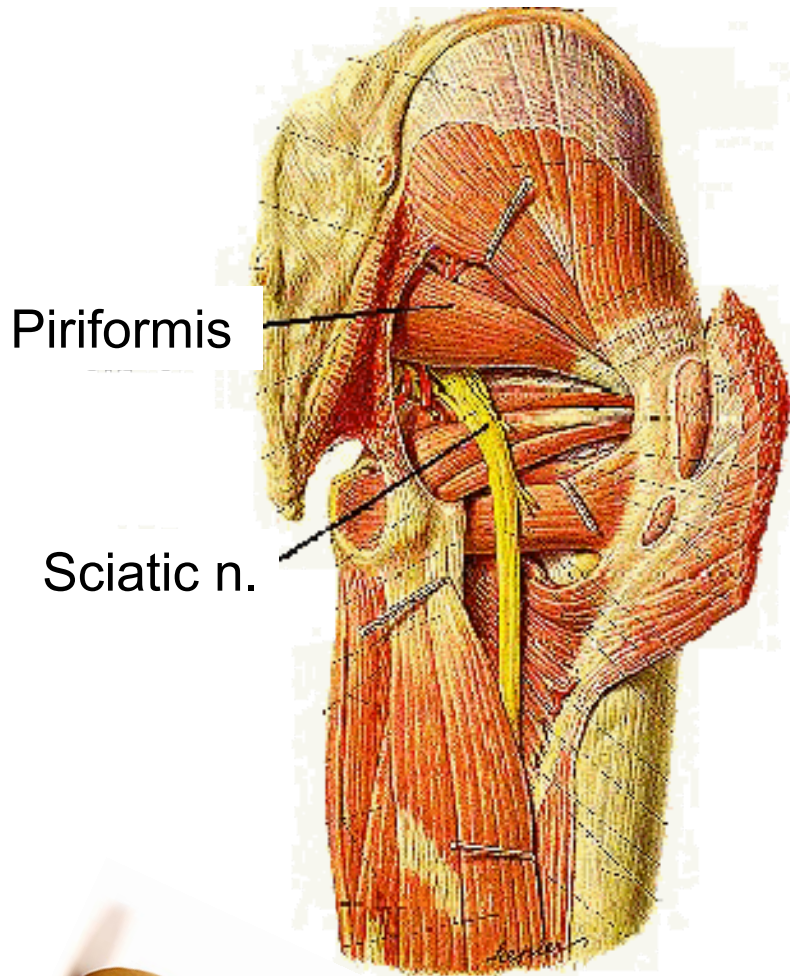


Image Sources: www.eorthopod.com, www.kneeandshouldersurgery.com

Which weight training, sports, activities?



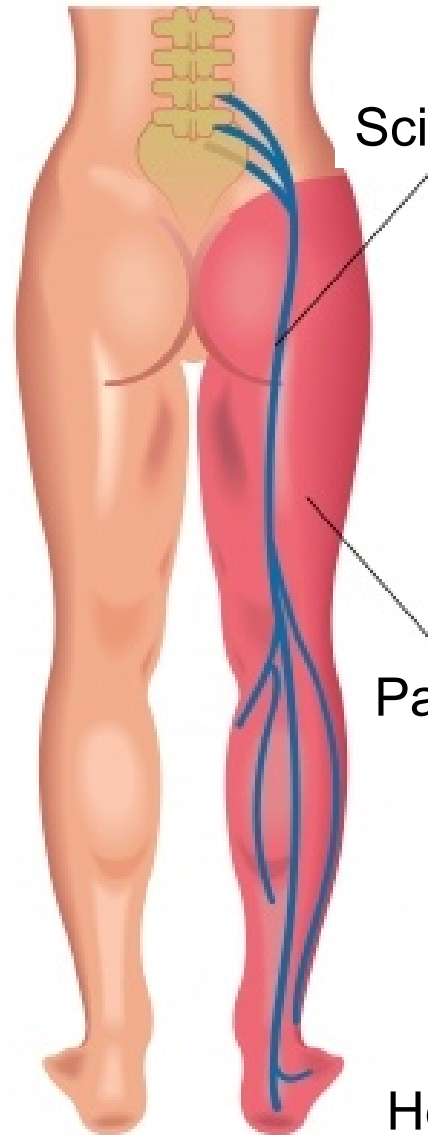
Sciatic nerve, distal muscles, proximal joints, L. name?



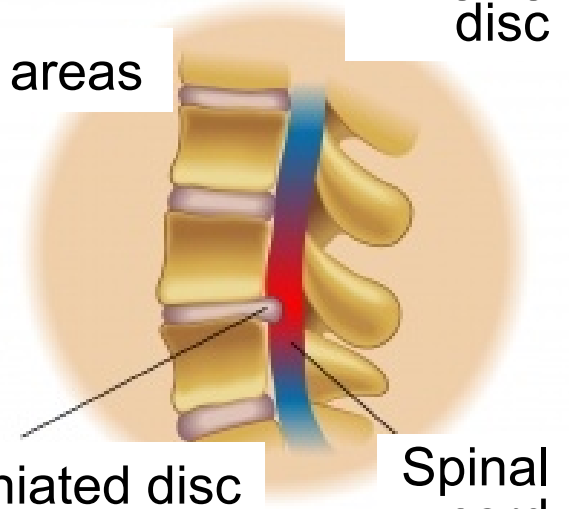
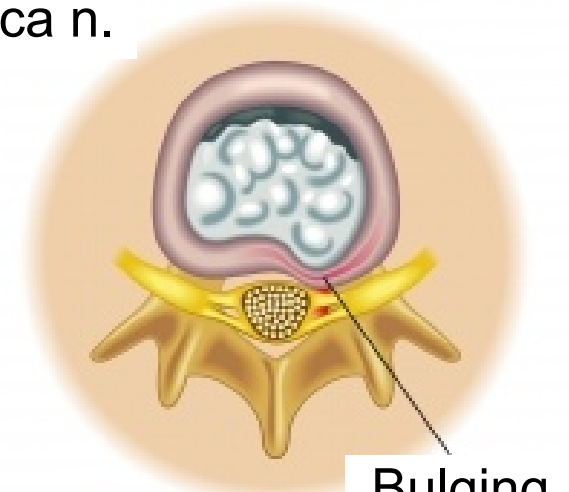
Piriformis \equiv L. pear-shaped

(R)

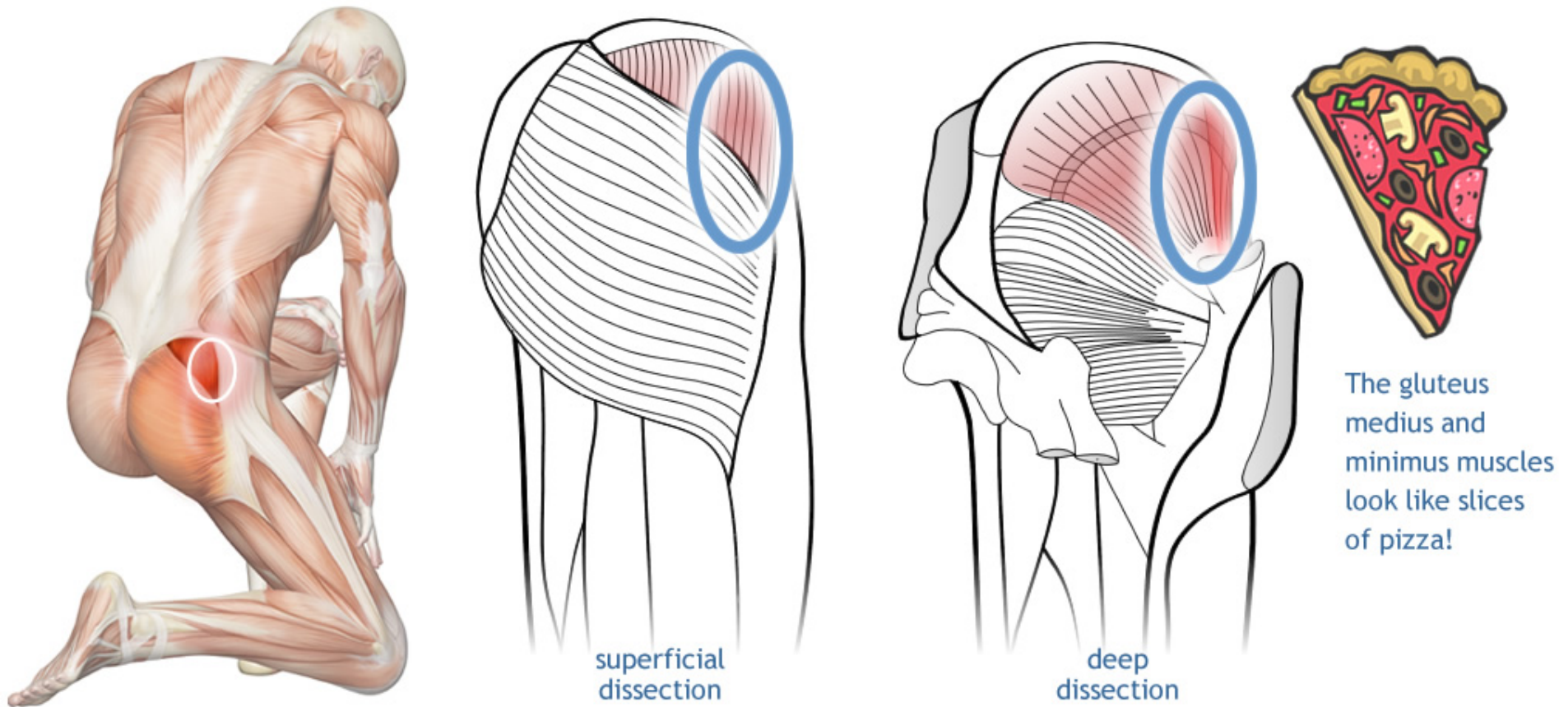
Sciatica



Most common cause!



Deeper Gluteal Muscles Look Like Pizza Slices!! Superficial to Deep: *Maximus, Medius, Minimus*!



http://www.anatomyexpert.com/structure_detail/5715/

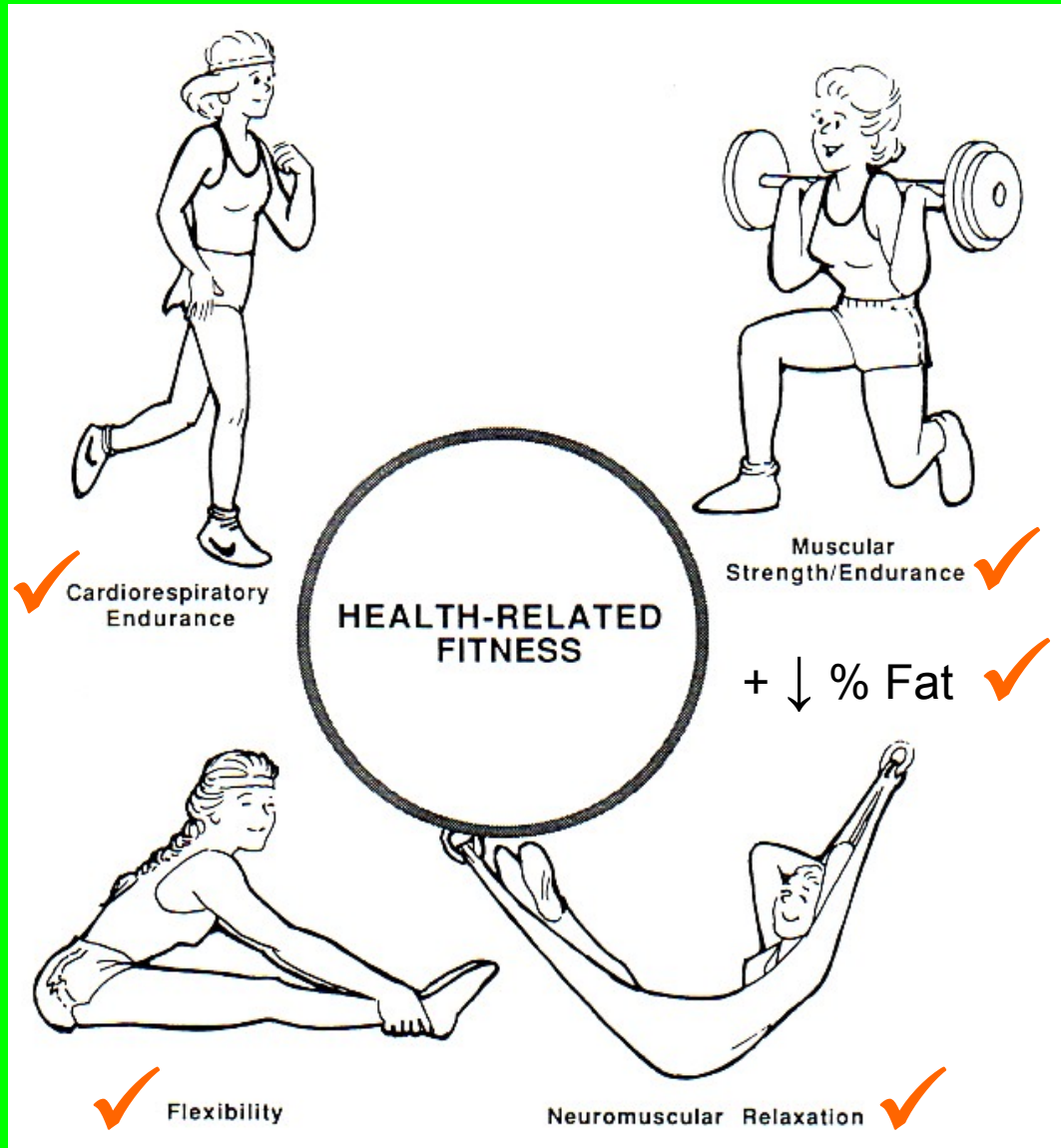
Image Source: <http://saveyourself.ca/articles/spot-06-gluteus-medius.php>

Which weight training, sports, activities?

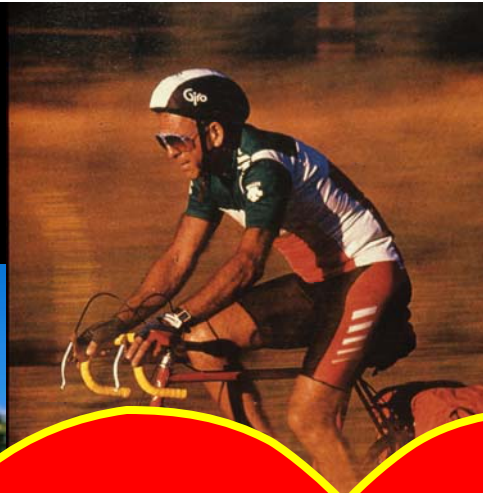


Weight Training is Non-competitive

Goal: Improve Life Time Fitness!



How much aerobic?

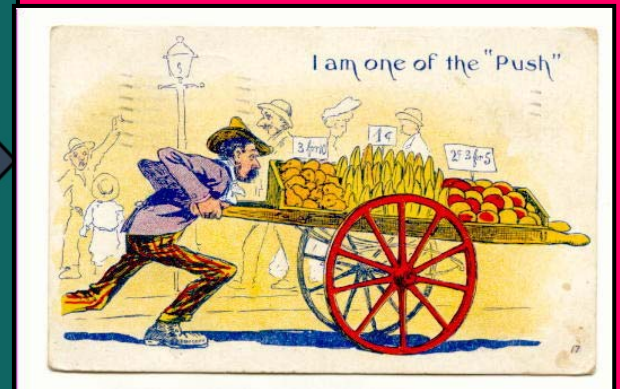
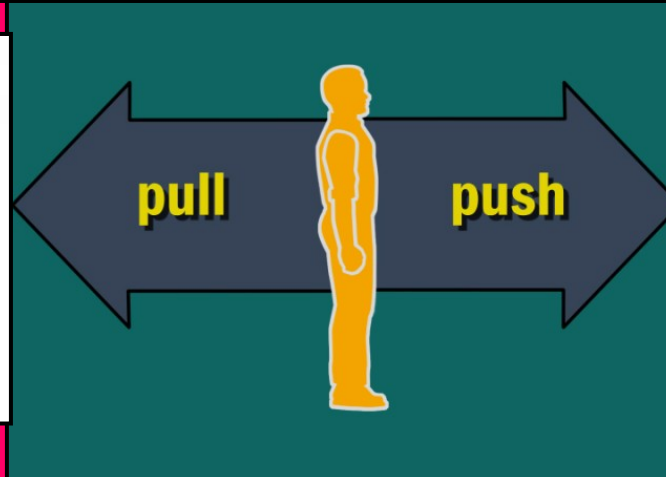
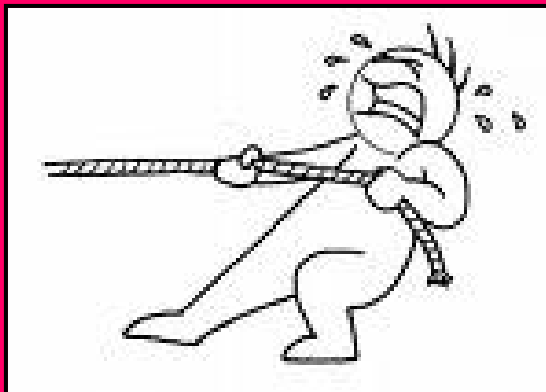


Continuous exercise
≥ 50% muscle mass
Moderate?
≥ 30 min/d, ≥ 5 d/wk
Vigorous?
≥ 20 min/d,
≥ 3 d/wk

NB: Always complement



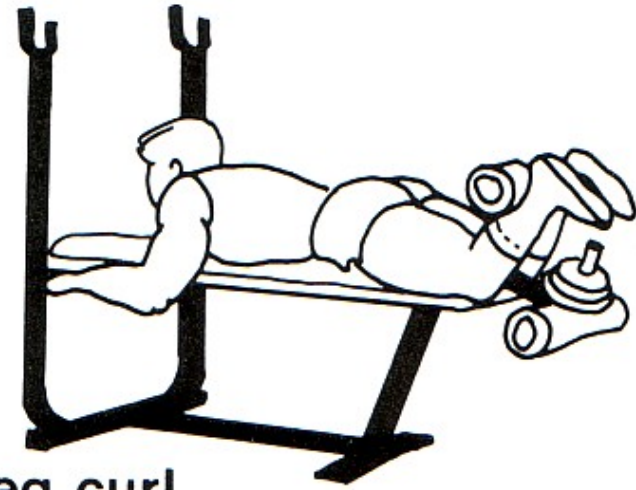
**Push with Pull to
ensure balance!!!**



Anterior - Posterior Balance

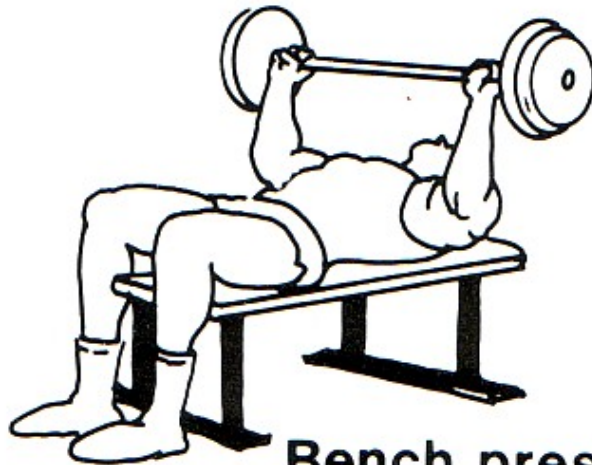


Leg extension



Leg curl

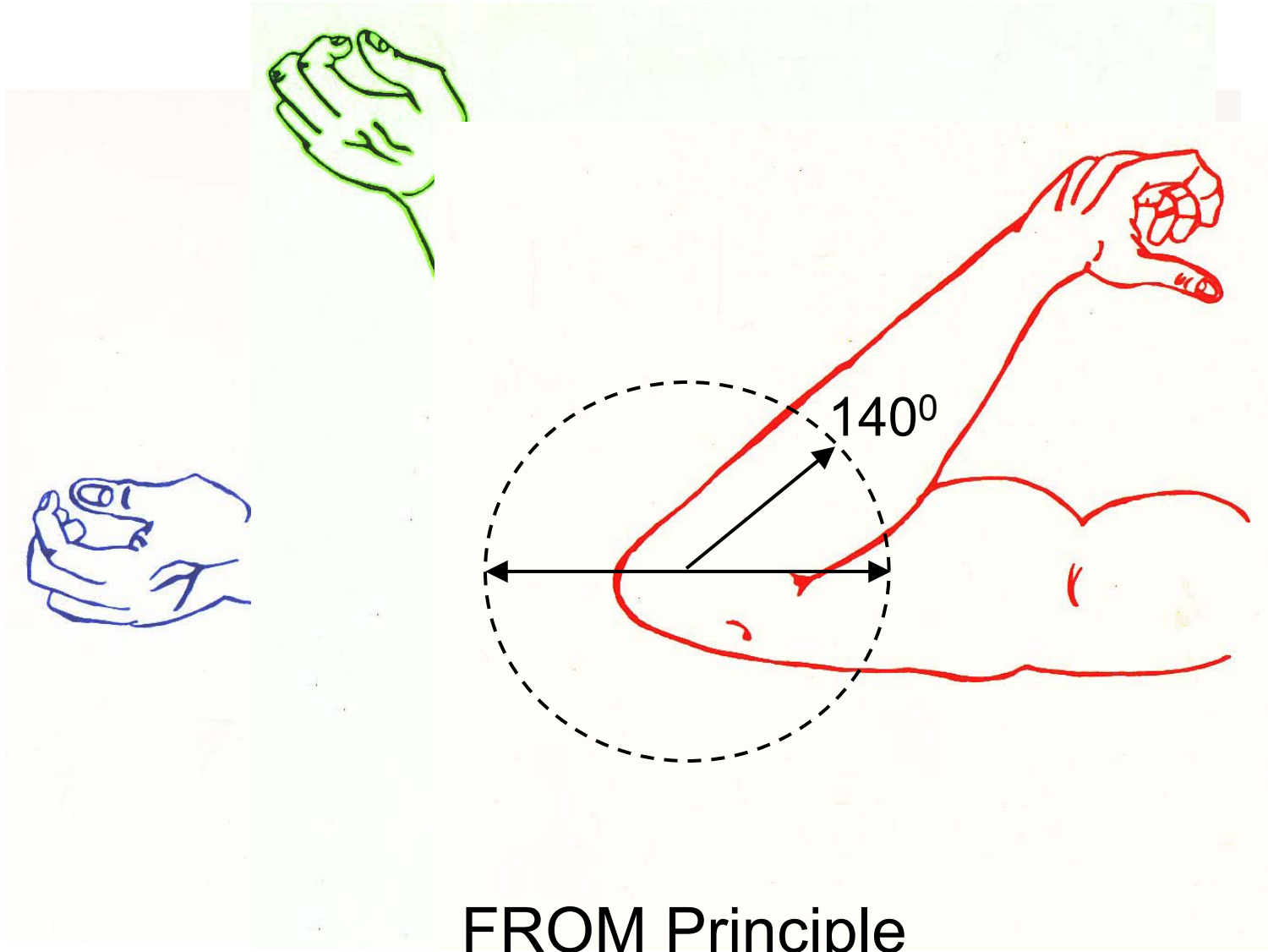
Superior - Inferior Balance



Bench press



Squat



FROM Principle

*Weight Training Like Life Is About Balance! Squat – Push – Pull!
Inferior – Superior & Posterior – Anterior Balance
Multi-Joint-Action vs. Single-Joint-Action
Center of Gravity vs. Periphery
Free Weight vs. Machine Emphasis*

Front/Back Squat¹ – Bench Press⁵ – Bent-Over Row⁶

Leg Press¹ – Chest Fly⁵ (db) – Lat Pull⁶/Pull Up⁶

Lunge² – Military Press⁷ – Pull Up/Rowing Variations⁶

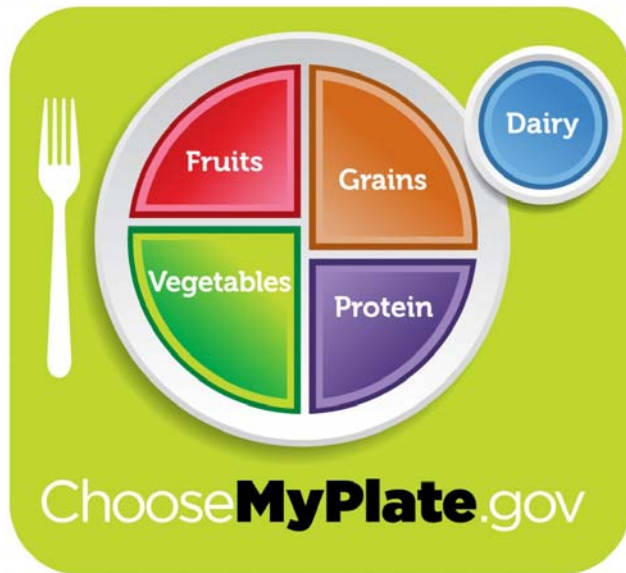
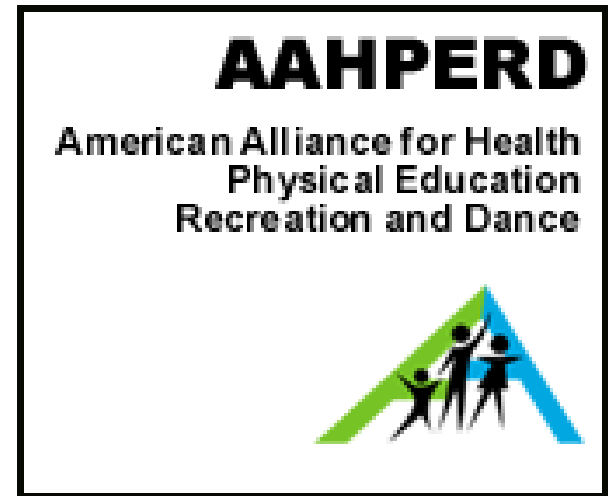
Leg (Knee) Extension² /Leg Curl³ – Dip⁸ – Upright Row⁸

Calf Raise⁴ (Straight/Bent-Knee) – Triceps⁹ – Biceps¹⁰

Back Extensions¹¹/Abdominals¹²

Squat – Push – Pull in 1 exercise! Clean & Jerk & Snatch!

¹⁻¹² The Basic Dozen Beginning Weight Training Exercises. VP Lombardi,
Beginning Weight Training: The Safe & Effective Way. Dubuque, IA: Wm. C.
Brown Company Publishers, 1989.



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