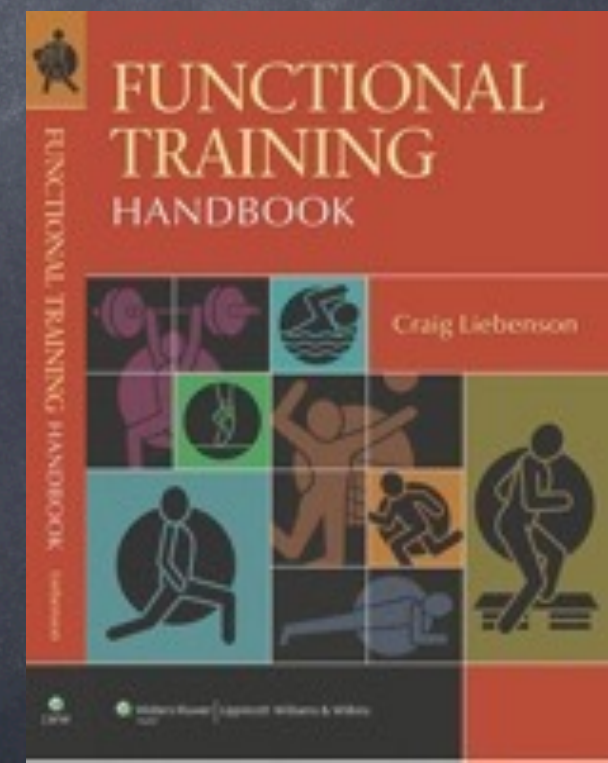
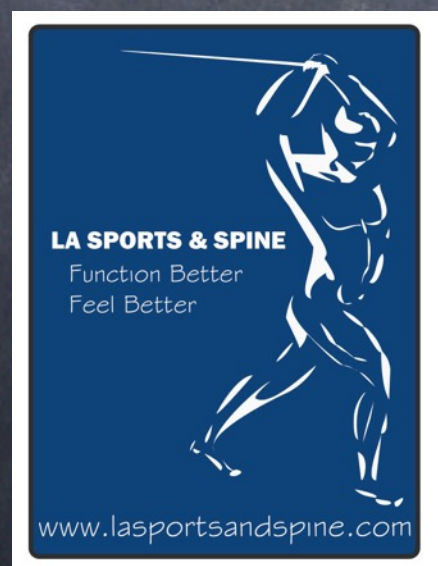
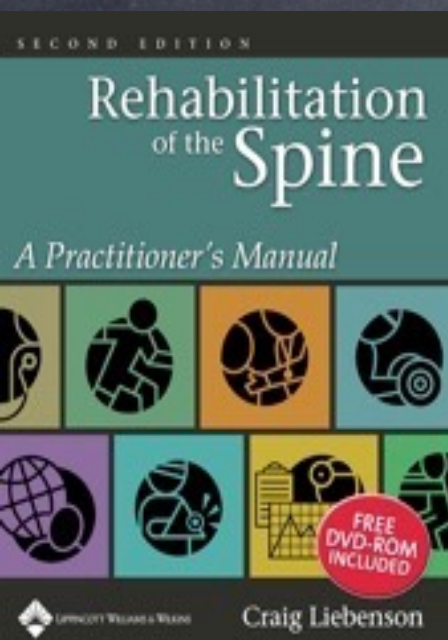


XI) Thoracic Spine

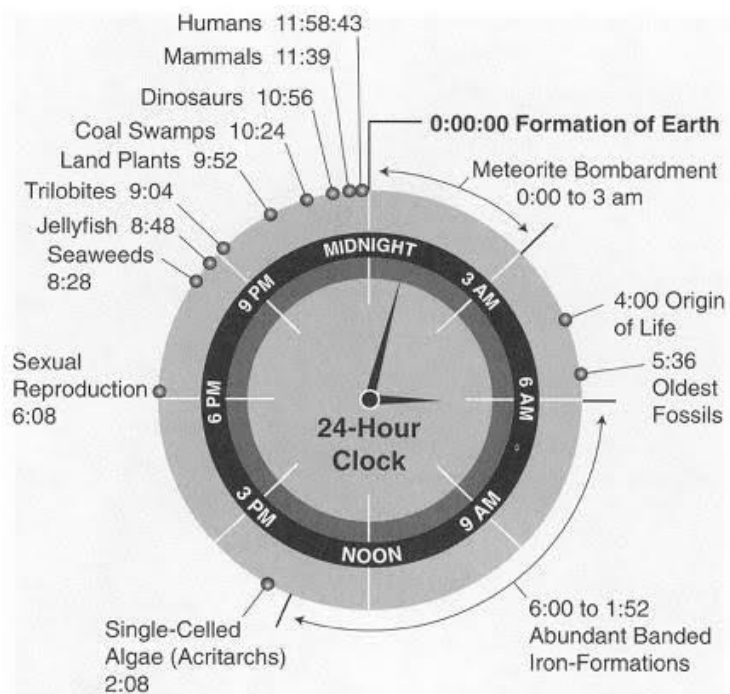
- Gravity
- Workplace design flaws
- Training myths



Is This Common? Is It a Problem?



The History of Earth As A Clock



Source: [UW-Geoscience](#)

THE STORY OF THE HUMAN BODY

EVOLUTION, HEALTH, AND DISEASE

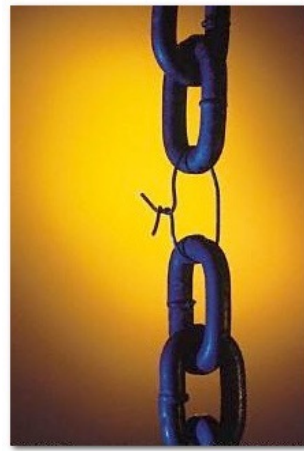
DANIEL E.
LIEBERMAN



BAD POSTURE

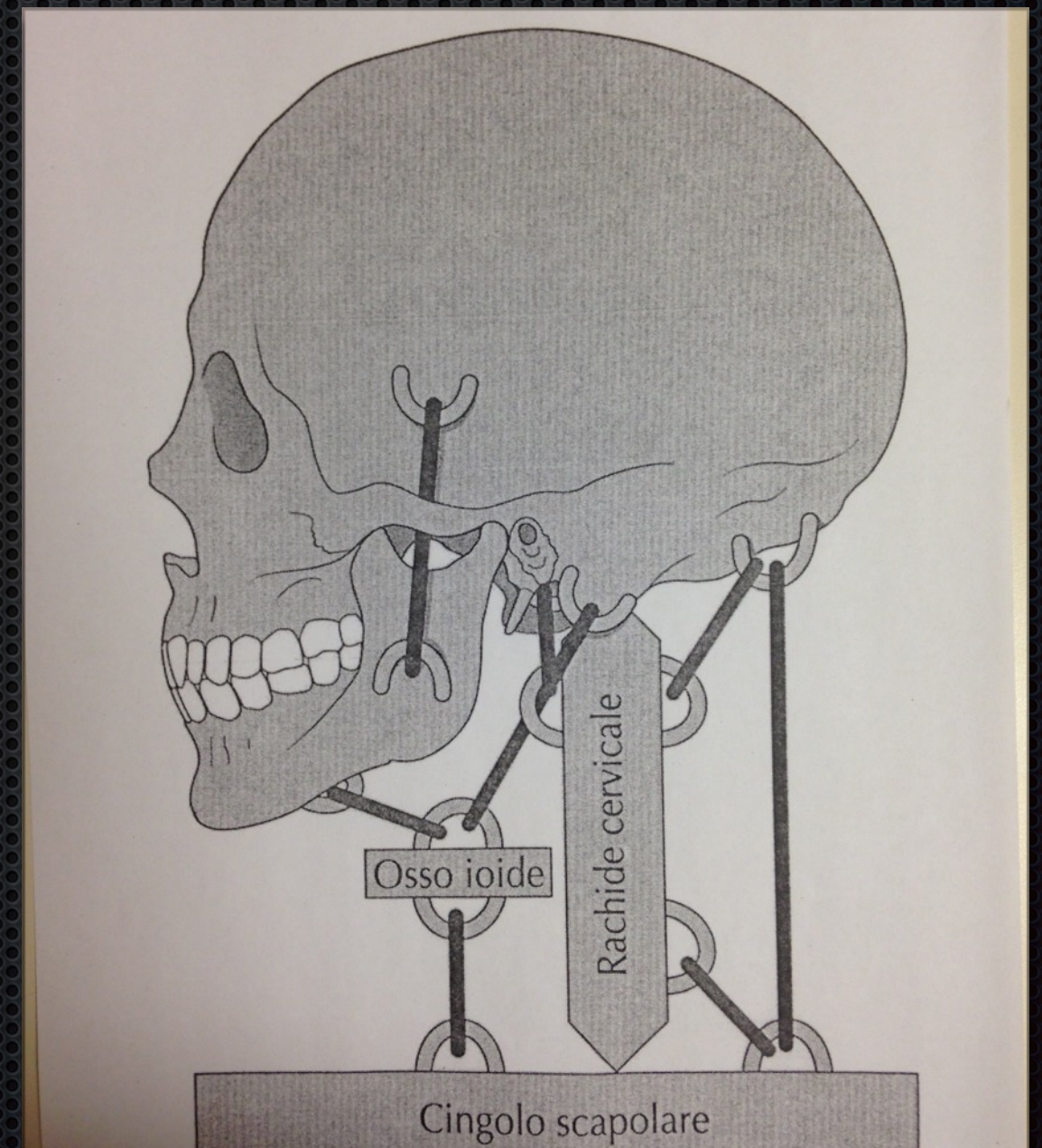
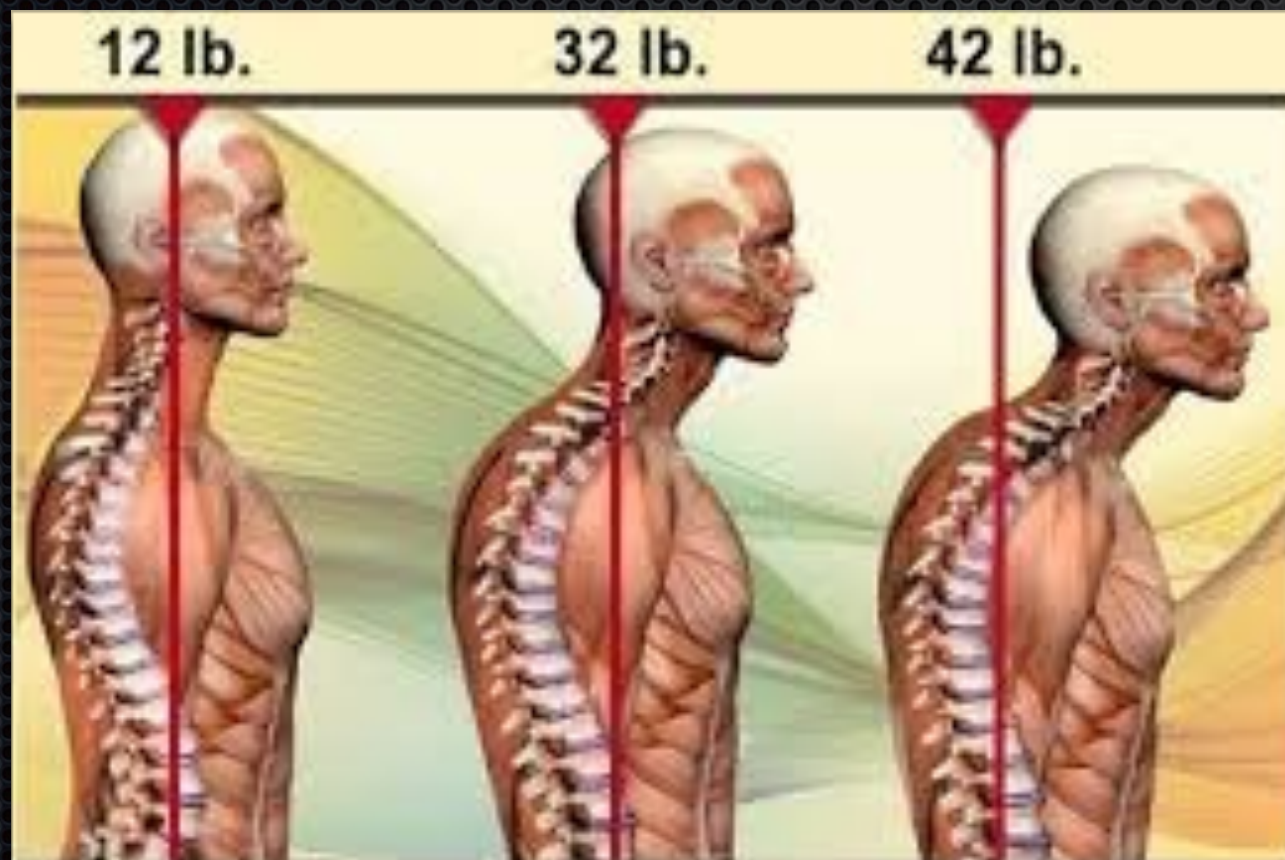
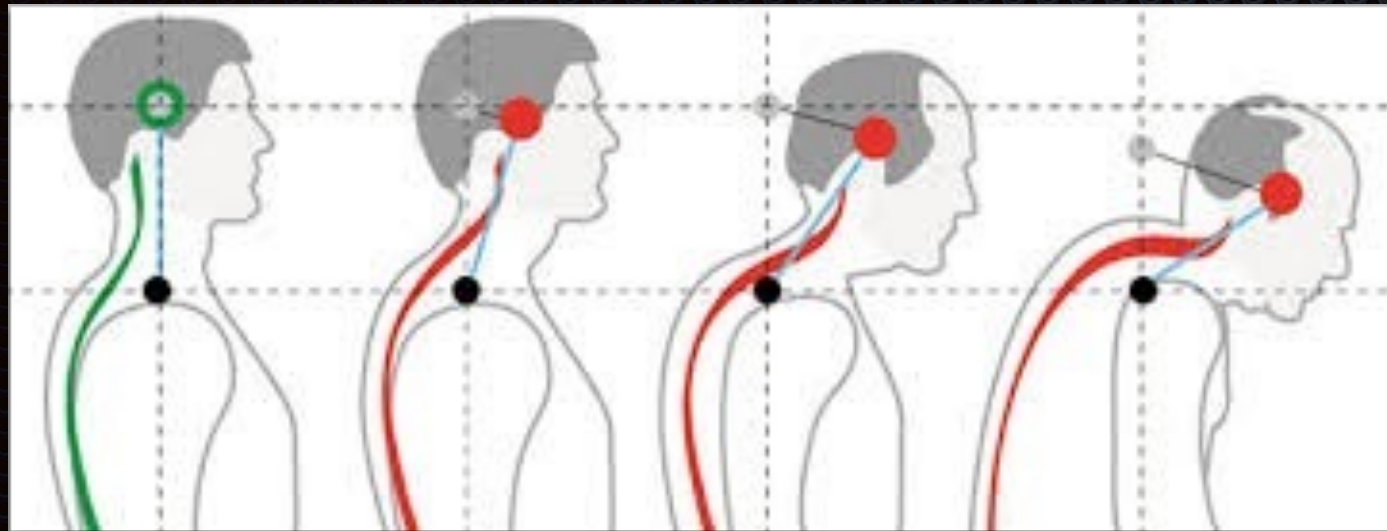
EXAMPLES

courtesy of The Cartoon Blog



Why is sitting the new smoking?





Working out should
improve them – right?



Janda's Approach

Most gym exercises tighten us



- “Think of working out in the gym. All the movements are about folding inwards. Between curls, crunches and squats we’re always tightening and closing ourselves up.”

Laird Hamilton



FIRST MOVE WELL

THEN
MOVE
OFTEN



GRAY COOK

graycook.com * functionalmovement.com

Regional Interdependence

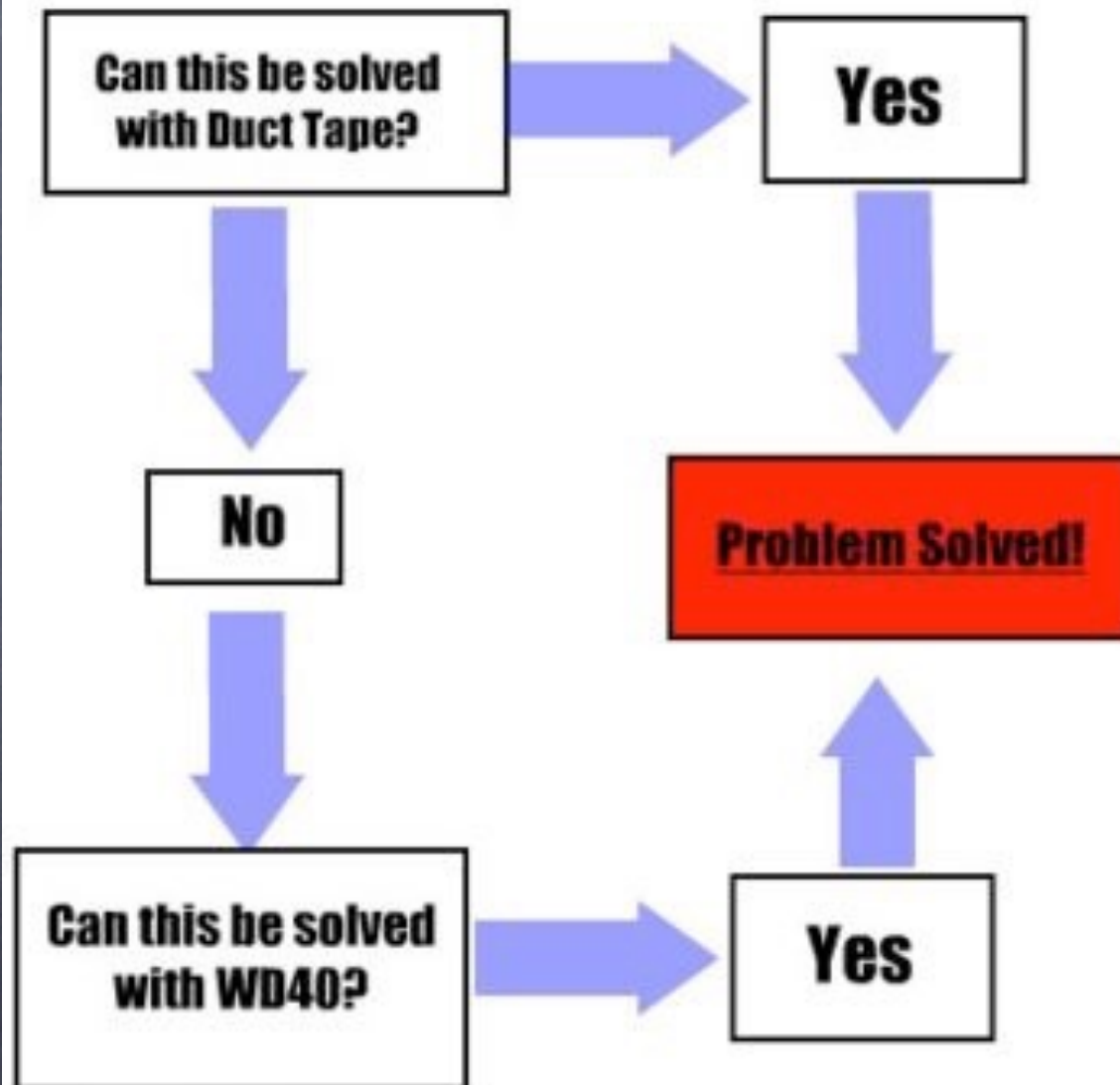
- Mobility/Stability
- Joint by Joint Approach
- Layer (Stratification) Syndrome
- Upper/Lower Crossed Syndromes



Mobility & Stability

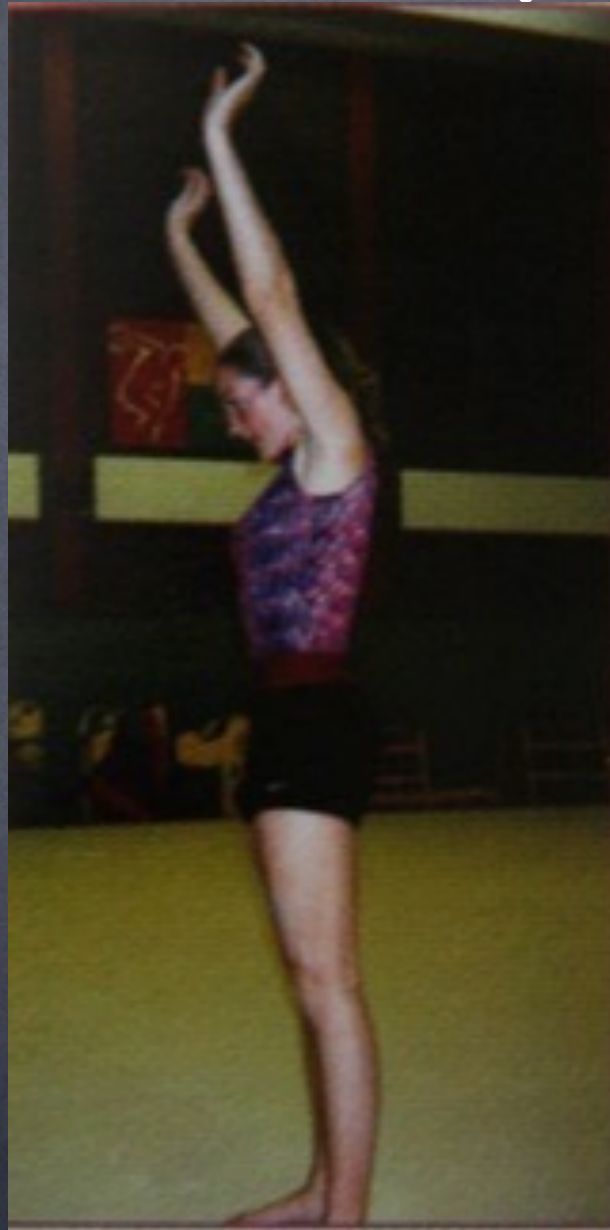


Two things you need in life

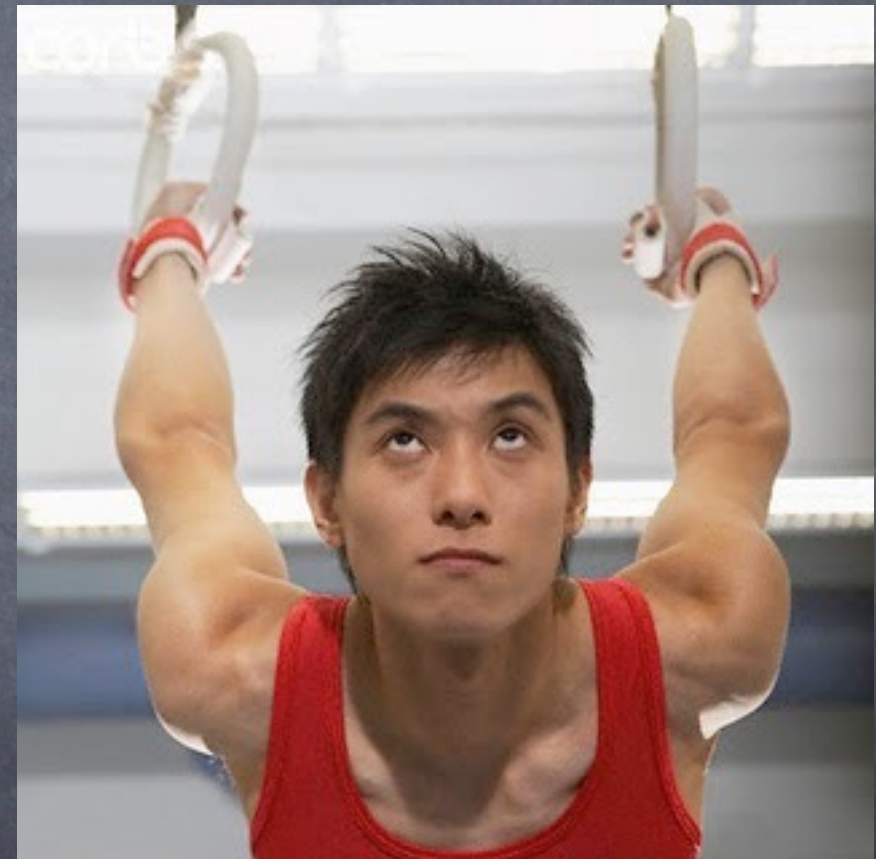




Stability/Mobility Upper Quarter



Thoracic needs what?



GH needs what?



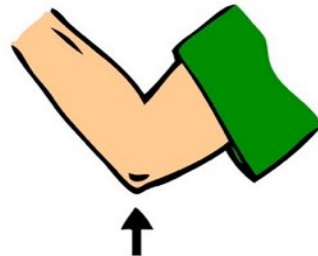
Mobility vs Stability





Mobility vs Stability





MOBILITY

Sub-O

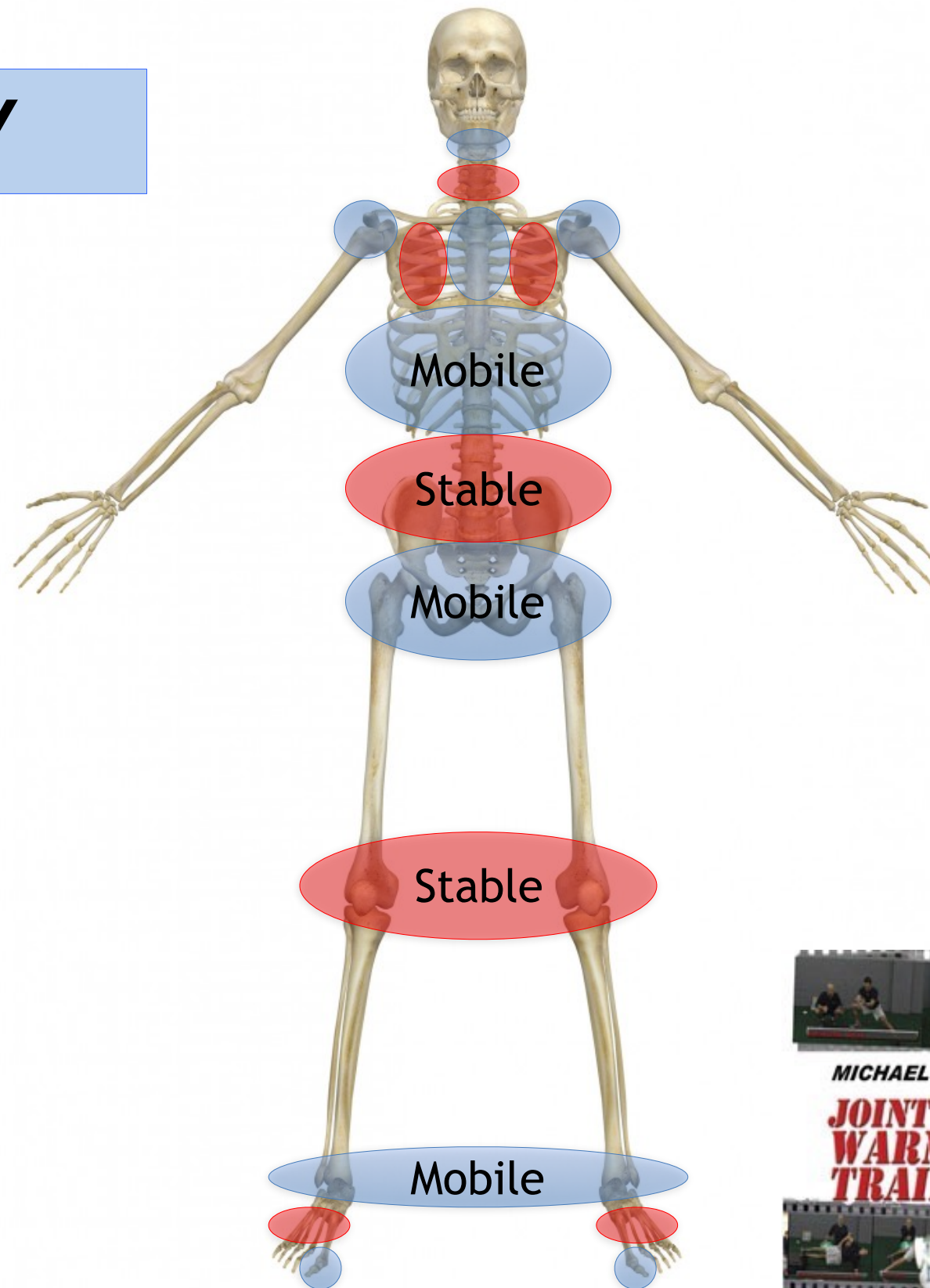
G-H

T/S

Hip

Ankle

1st MTP



STABILITY

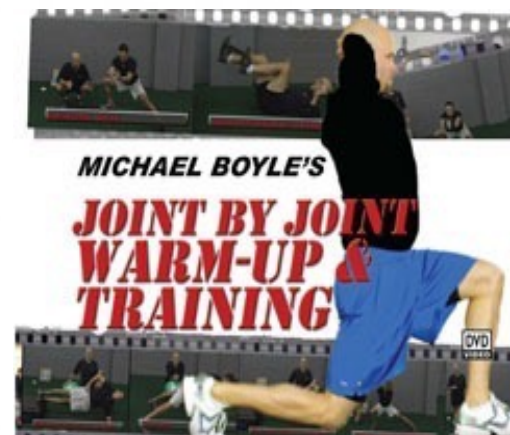
C/S

S-T

L/S

Knee

Foot (sole)





Layer Syndrome



Muscle Hypotrophy &

Muscle Hypertrophy

Muscles which tend to inhibition

Lower stabilizers of the scapulae

Shoulder girdle external rotators

Lumbosacral

Erector spinae

Gluteus maximus

sole of foot

Muscles which tend to tightness

Cervical erector spinae

Upper trapezius

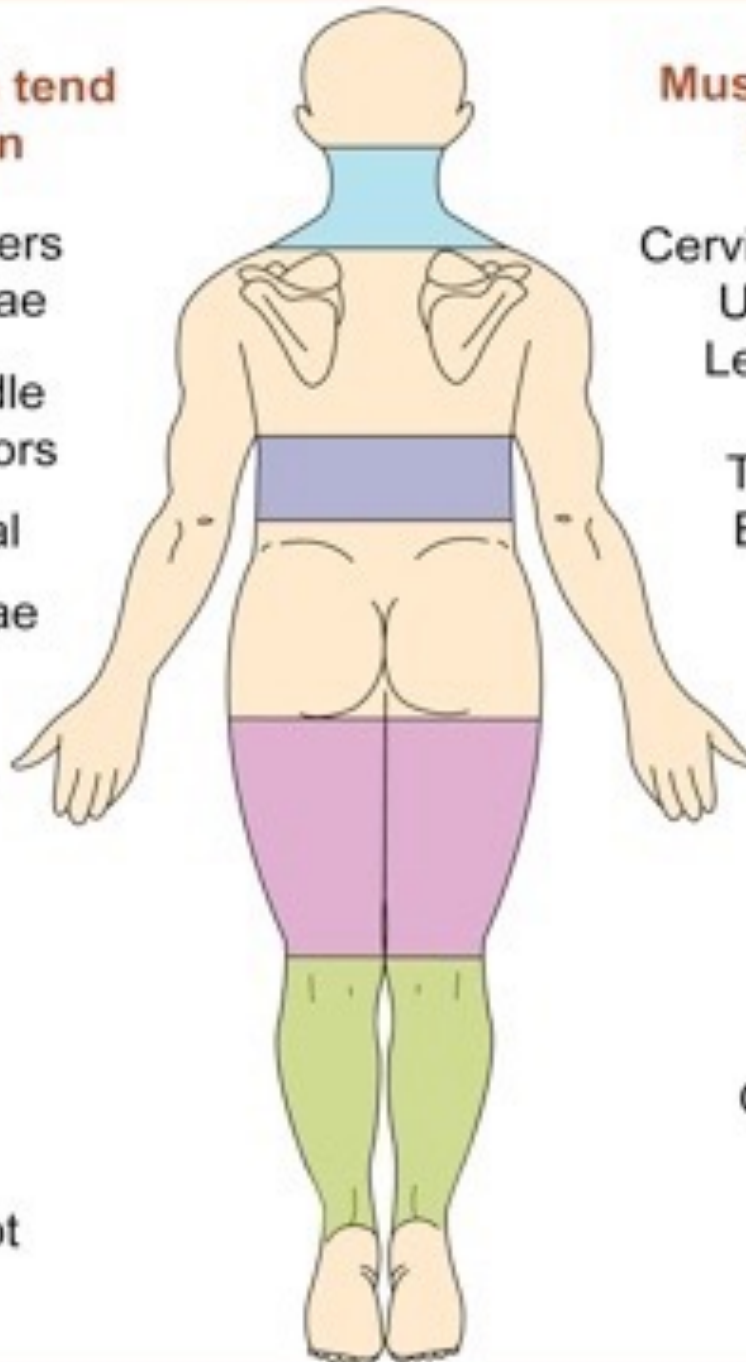
Levator scapulae

Thoracolumbar

Erector spinae

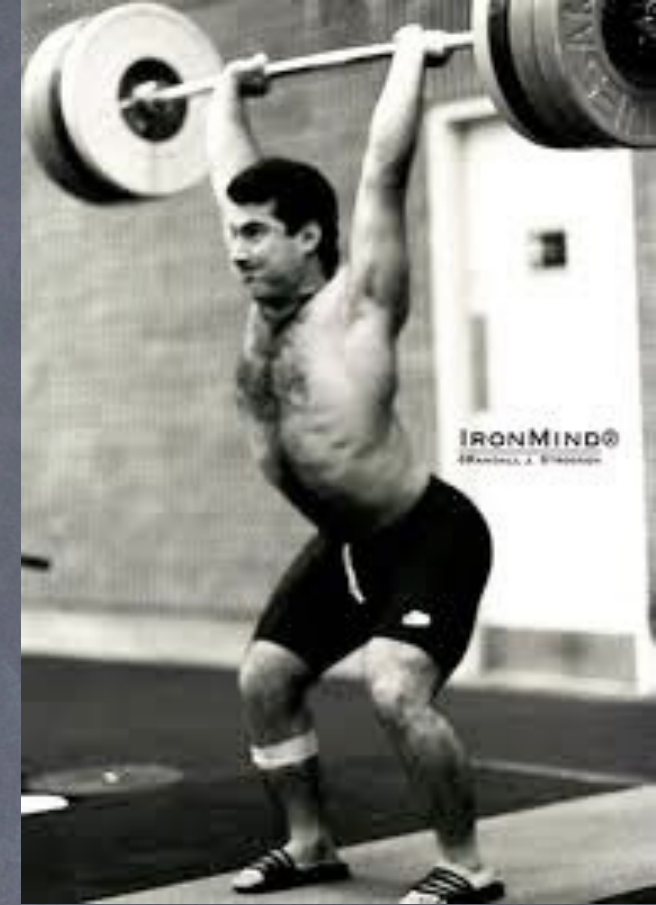
Hamstrings

Gastro-soleus

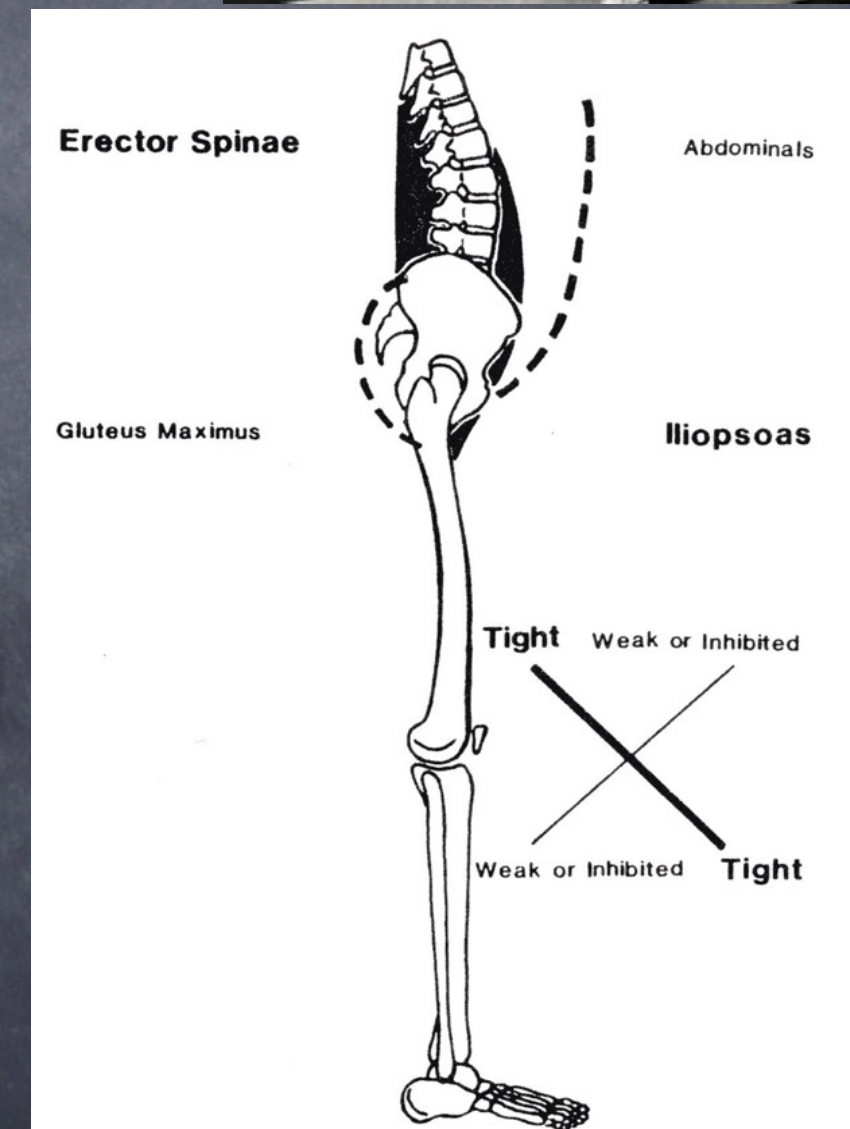
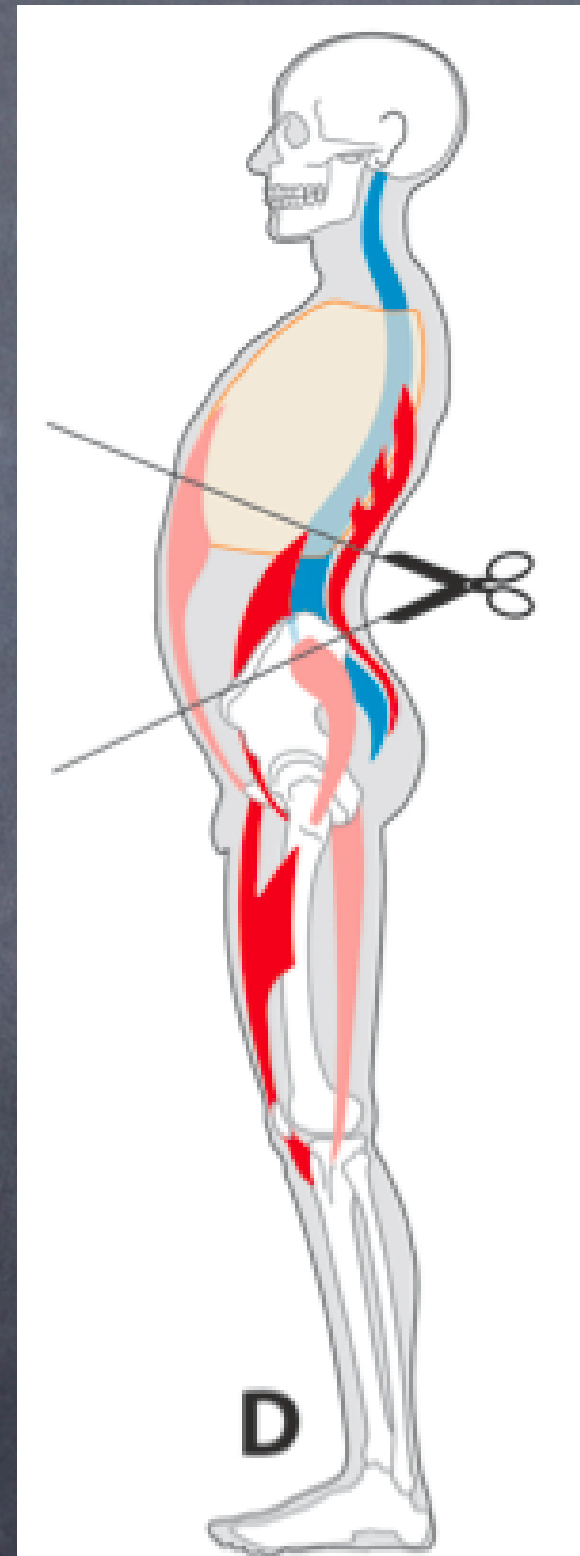




Scissors



- Oblique diaphragm
- Failure of oblique abdominal muscle slings
- T/L overload
- Hyperlordosis
- **Lower Cross Syndrome (Janda)**



Lower Cross/Open Scissors?

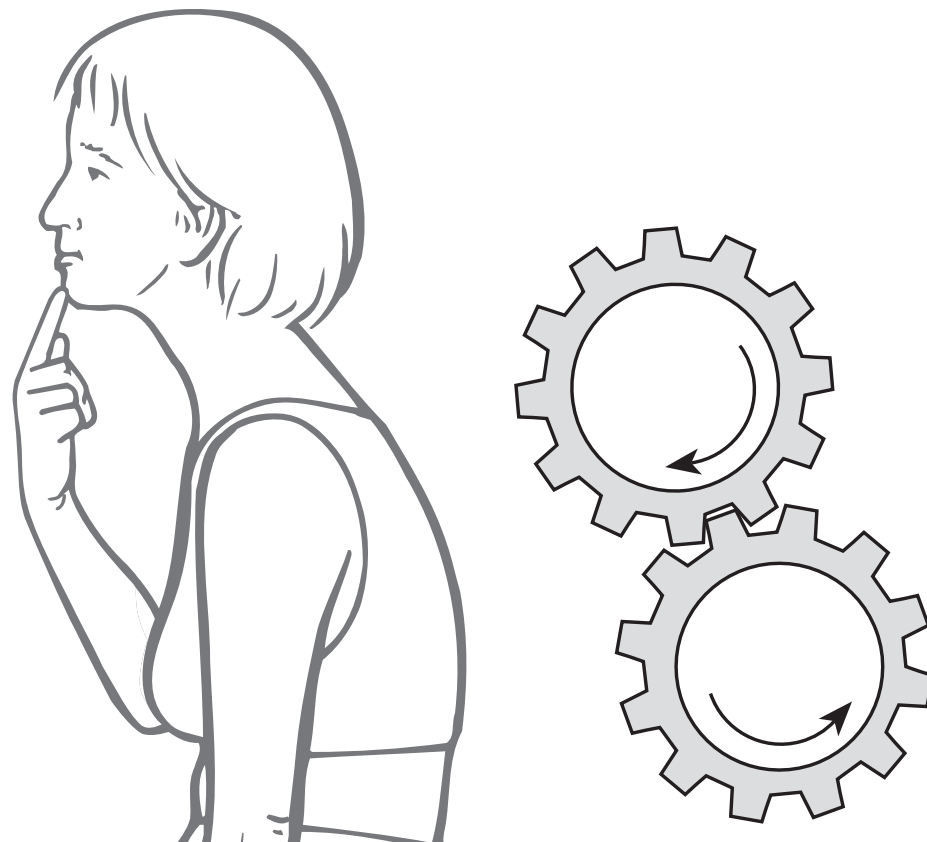


I) ASSESSMENT

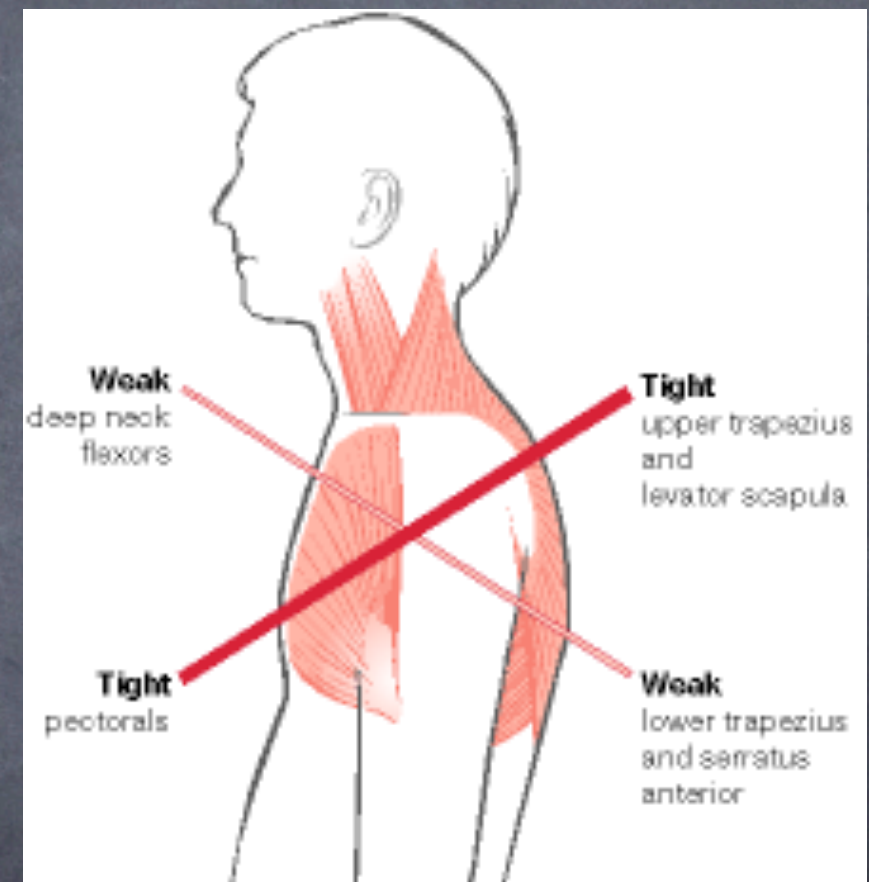
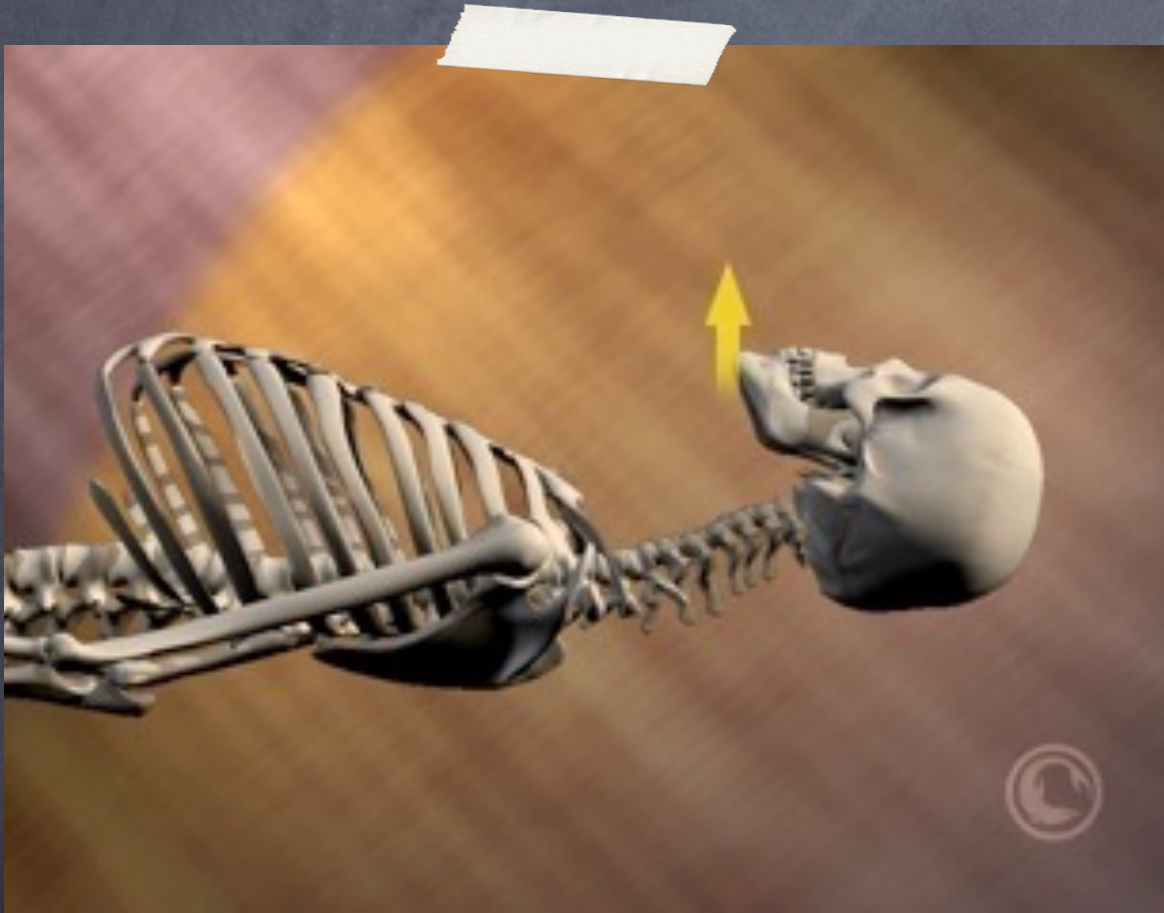
Head Forward Posture



Why not being able to hold your
head up can be a a pain in your
neck



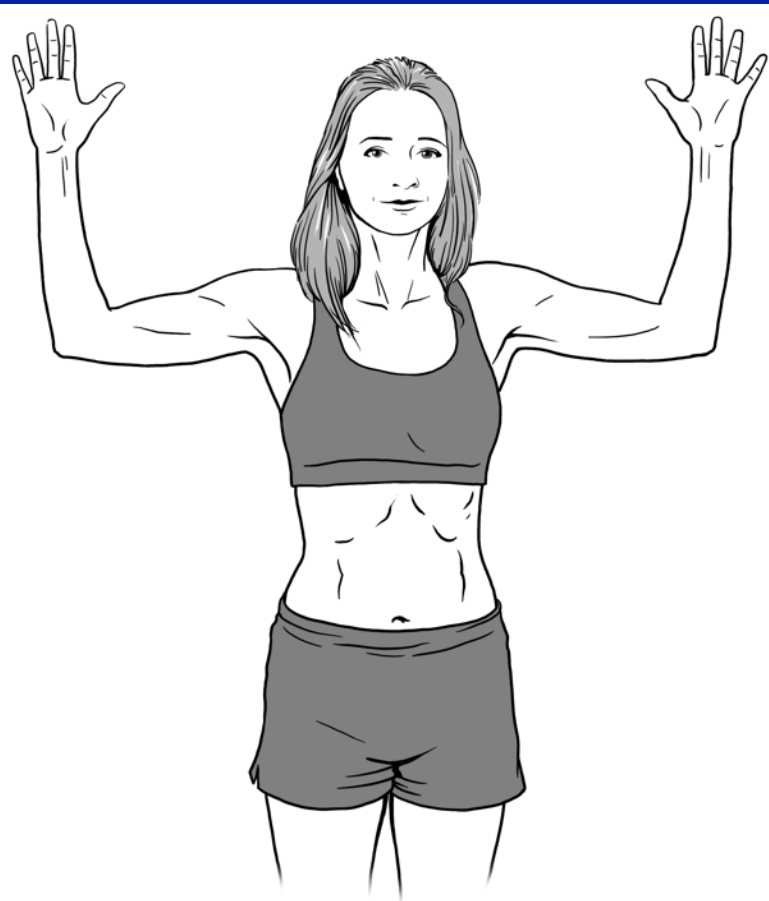
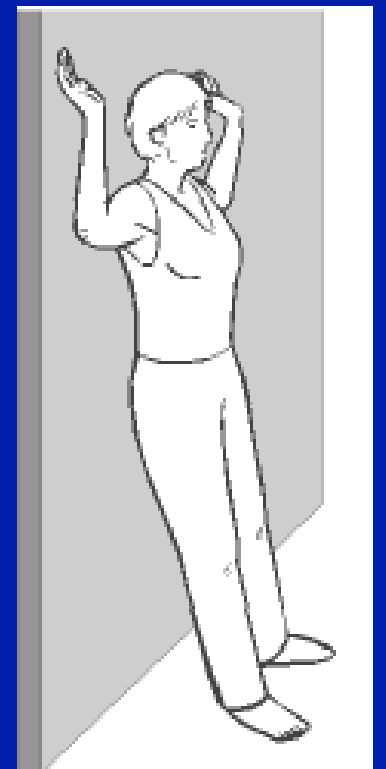
C0-C1 Flexion





T4 Mobility Screen - P674

- Stand vs. wall w/ arms externally rotated/supinated & feet slightly forward
- Buttocks vs wall
- Back of head vs wall
- Hands vs wall
- Try to flatten back
- Record
 - Can back flatten at all?
 - Where does pt. feel tension (mid-back, left or right side, neck)



Scoring

- 0 - Pain
- 1 - Can't perform movement
 - Any chin poke
 - Back of head can't touch wall w/ horizontal face line (no C0-C1 hyperextension)
 - ↓↓ Shldr Ex Rot - Wrist >1 cm off wall
 - No anterior rib cage motion when flattening back against wall
 - All five fingers not touching the wall
- 2 - Performs movement w/ compensation
 - T/L lordosis > 1 cm from wall
 - ↓ Shldr Ex Rot (can't flatten wrist vs wall)
- 3 - movement performed w/out compensation
 - Wrist & fingers flat on wall
 - T/L lordosis < 1 cm of wall

Wall Angel Assessment

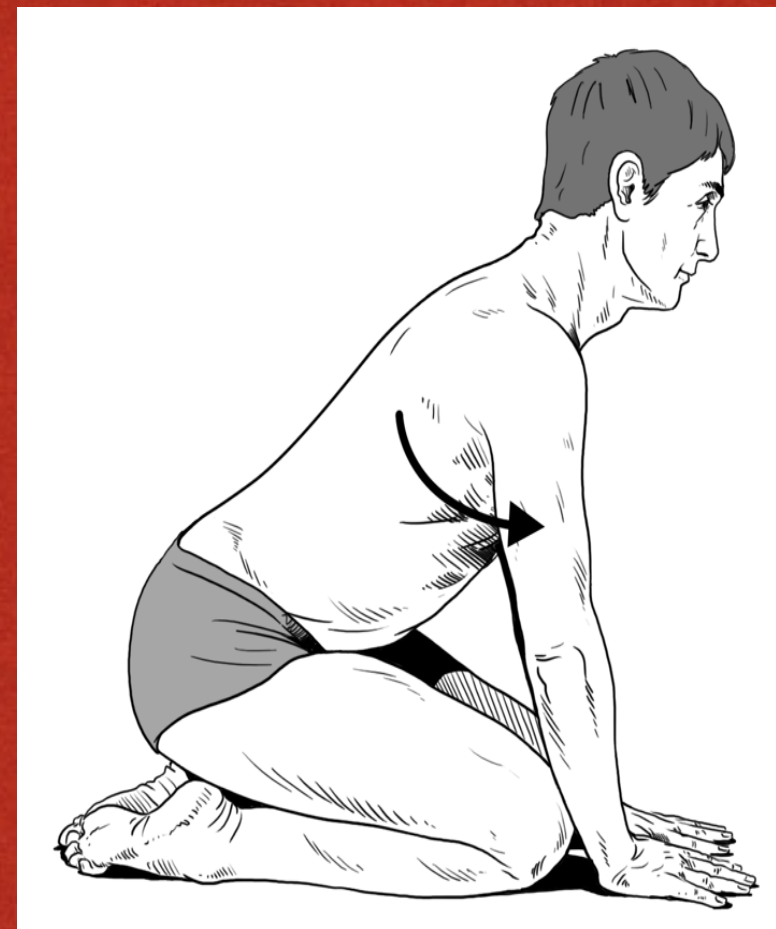
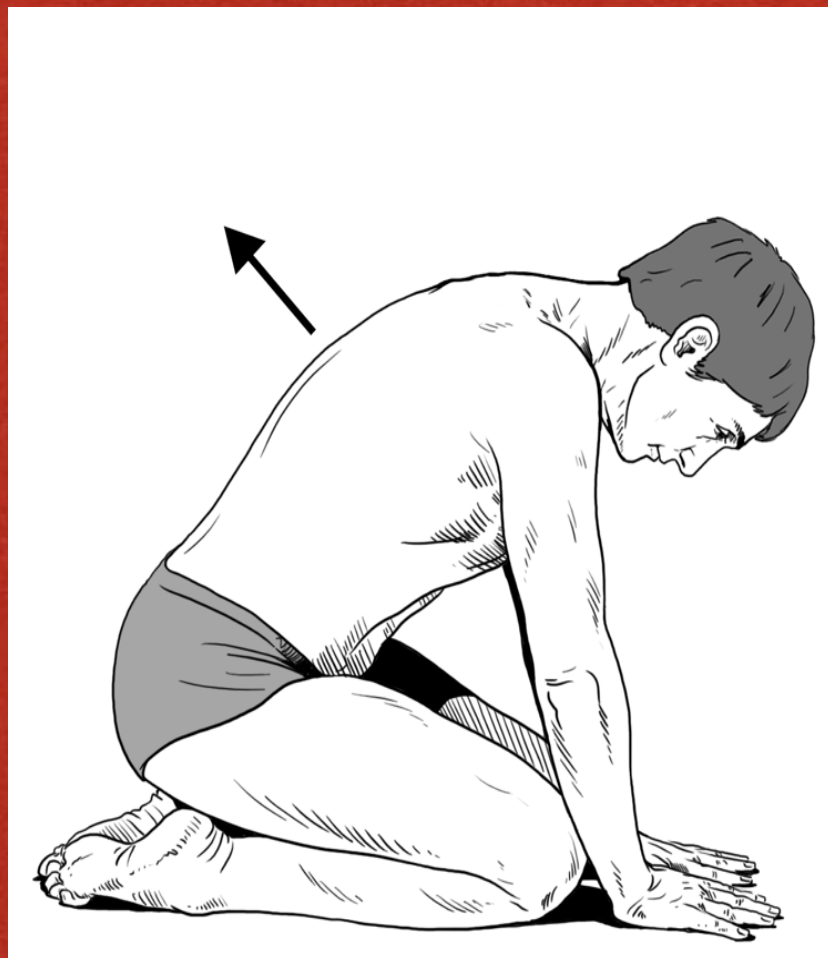


I) TRAINING

1. T4 Sphinx
2. Vertical Foam Roll
3. Horizontal Foam Roll
4. Upper Back Cat Camel
5. Lat Stretch
6. T4 Rotation
7. Halo
8. Cressey

1. Sphinx – T4-8

ROS p864,865





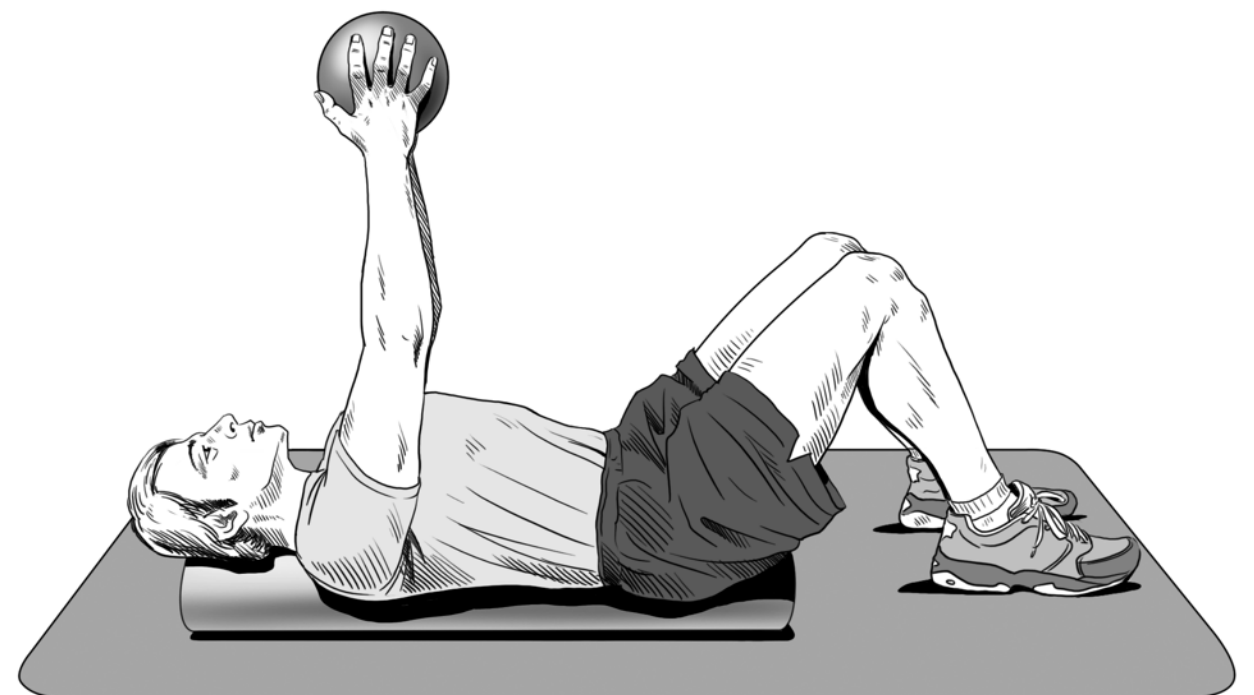
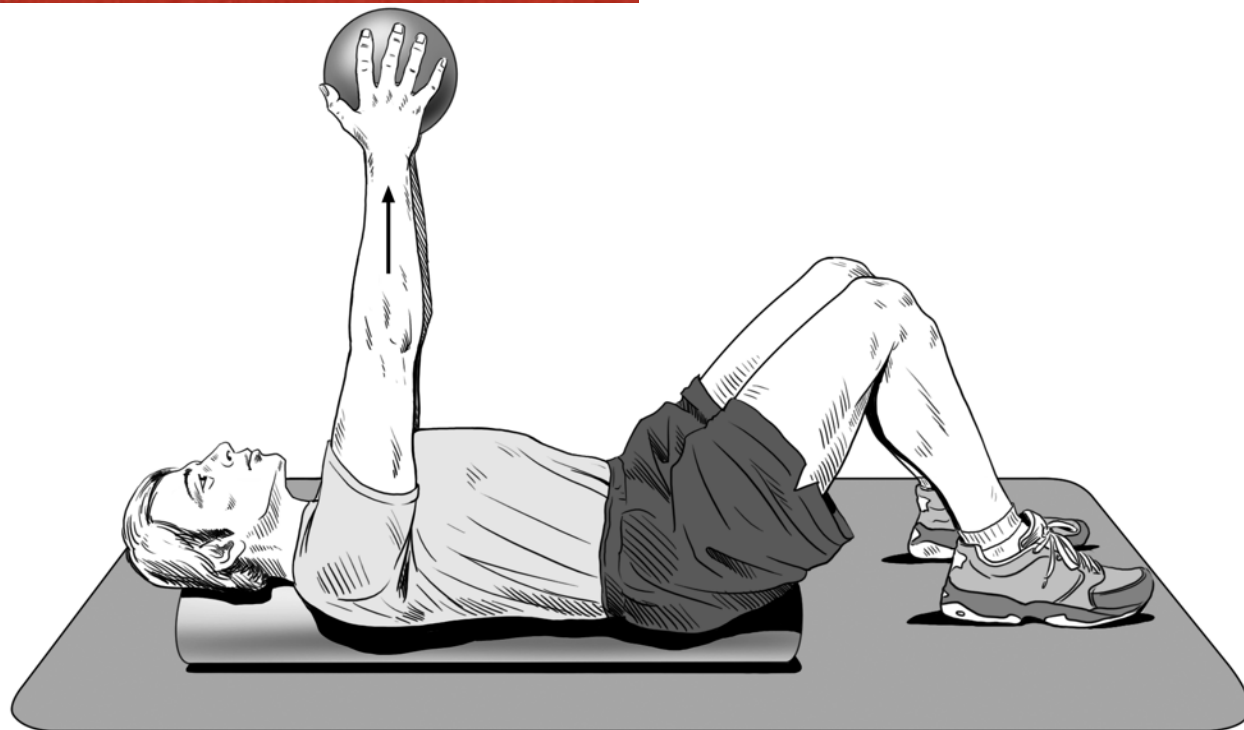
2. VERTICAL FOAM ROLL



VERTICAL FOAM ROLL

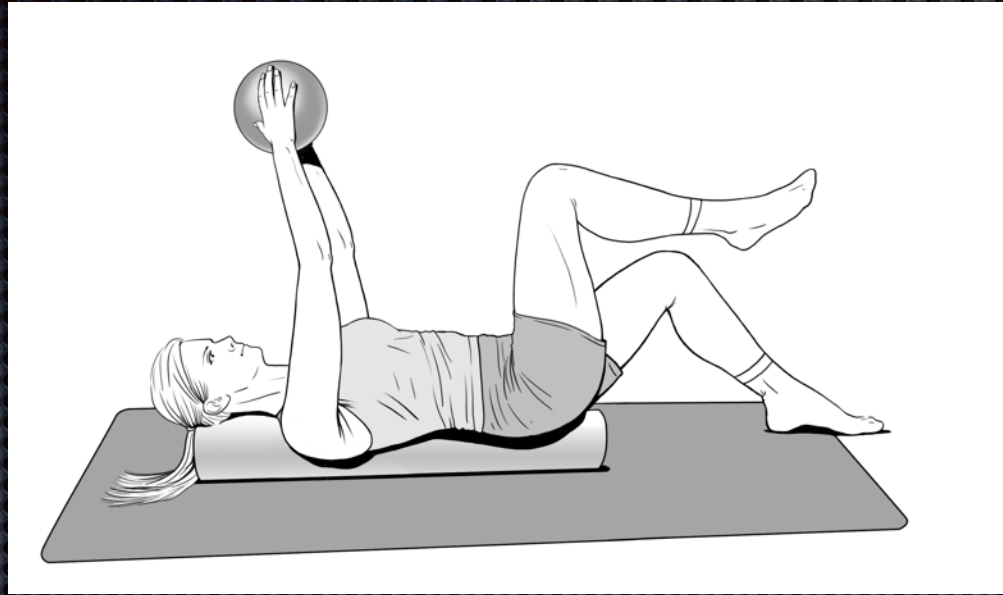


CHEST PRESSES



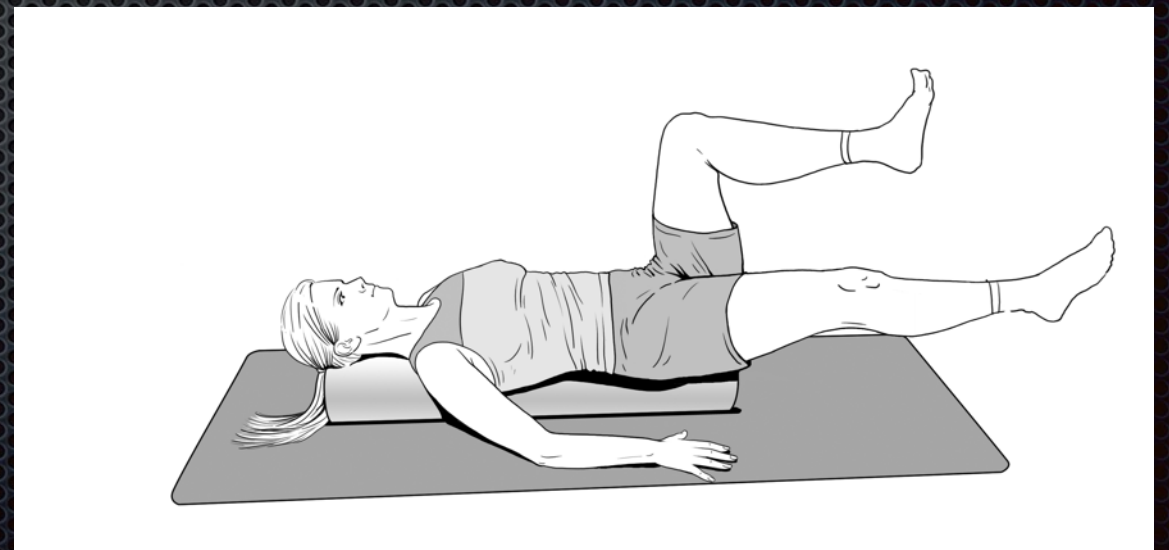
Avoid pressing up only part way

Additional Vertical Foam Challenges



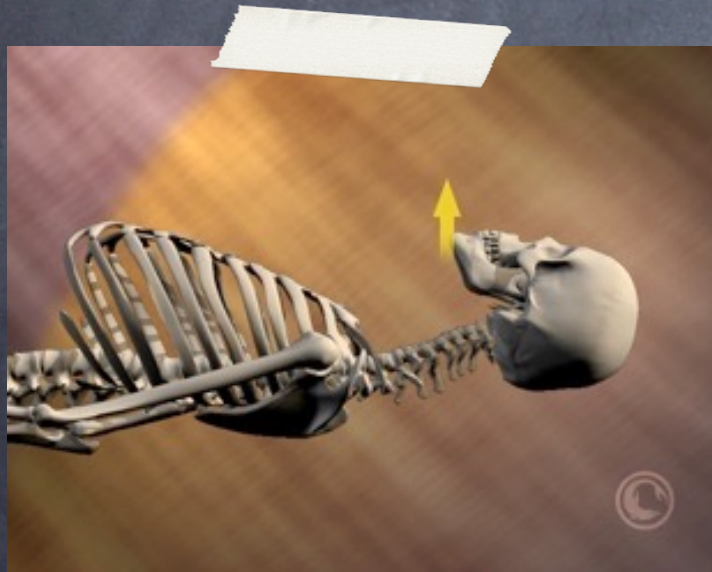
Marching

Bicycle Kicks



3. Horizontal Foam Roll

- Extend your back over the foam roll
- Keep your chin tucked in



Avoid poking your
chin

Option using Gym Ball



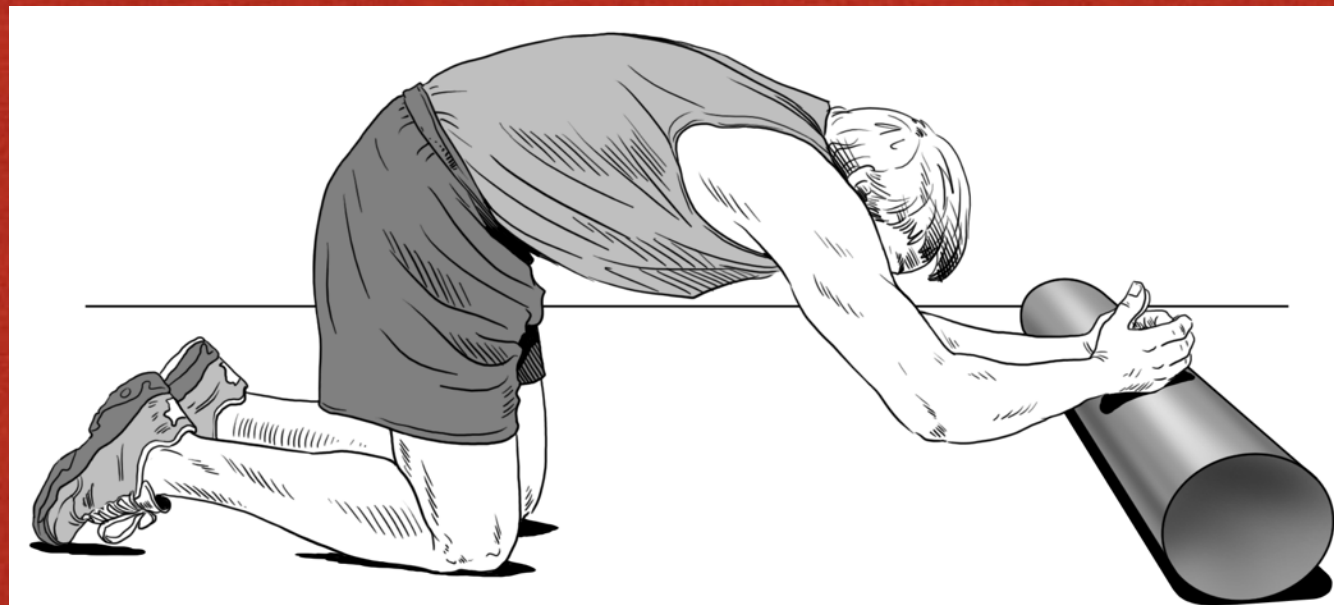
4. Upper Back Cat

- Place your wrists on the foam roll
- Round your back up
- Let your chest drop down



THE MOST COMMON MISTAKE TO AVOID

- SHRUGGING YOUR SHOULDERS



Option using Gym Ball



5. Lat Stretch



- Round up
- Drop down
- Inch knees forward
- Bring palms together



6. T4 Rotation



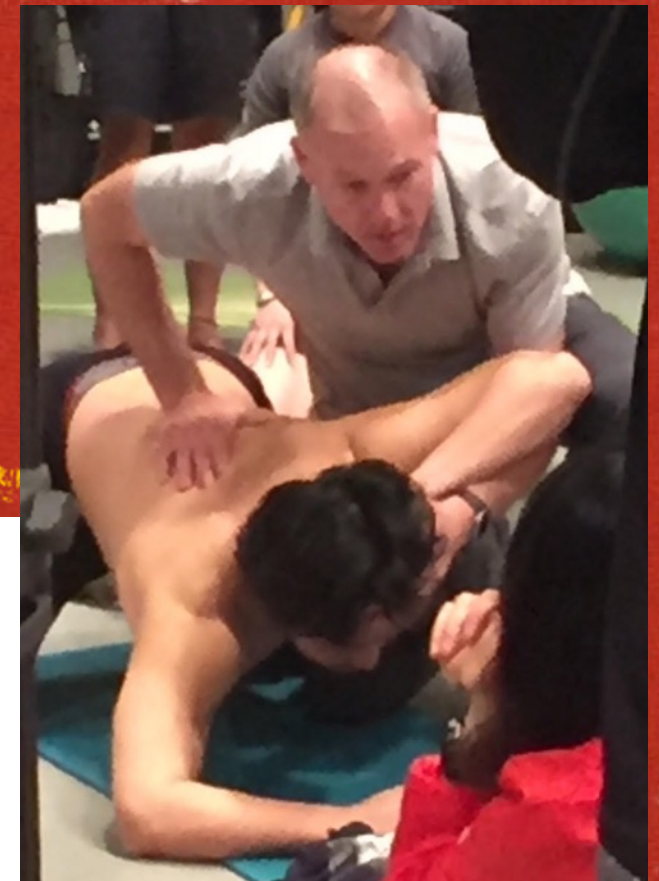
Self-Care



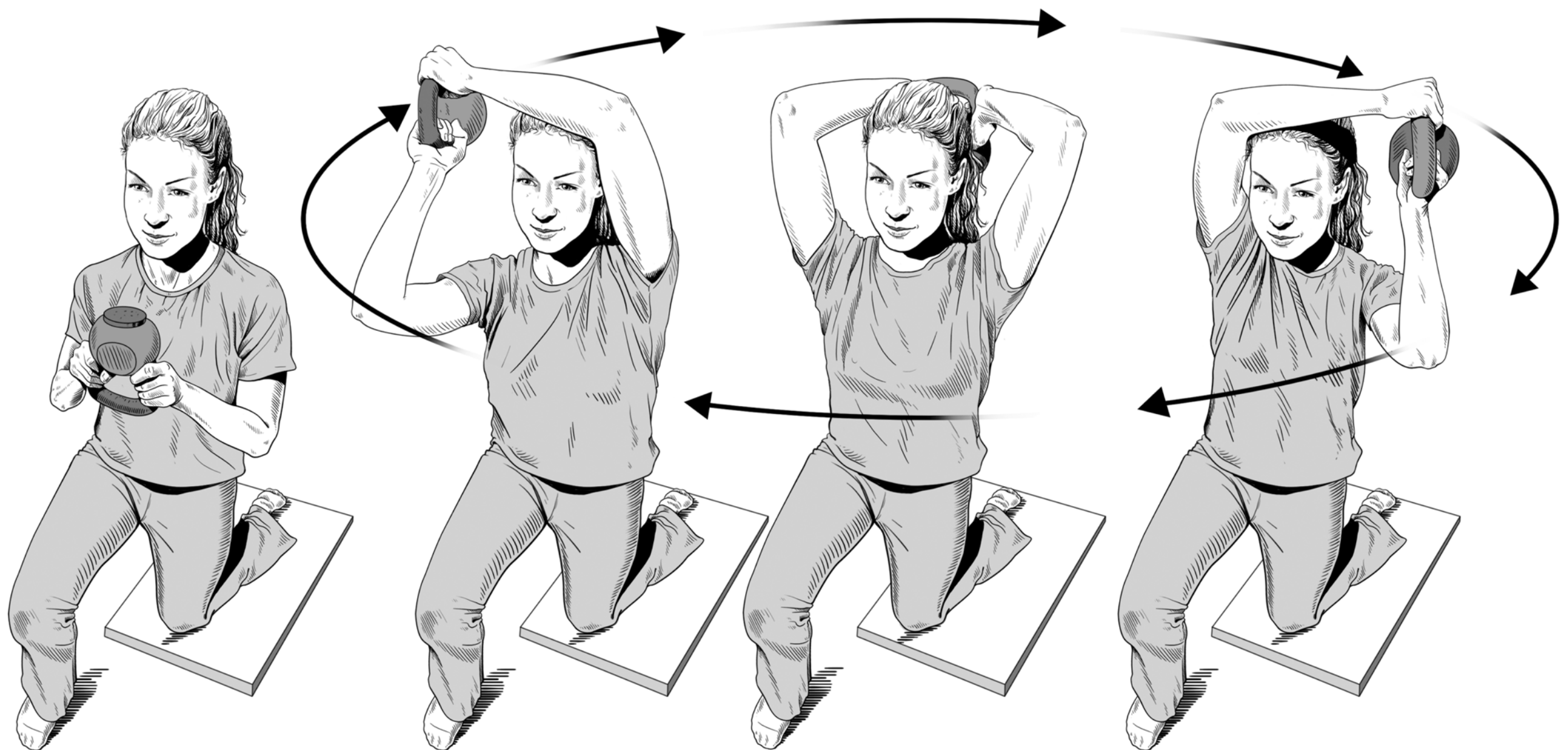
Assisted



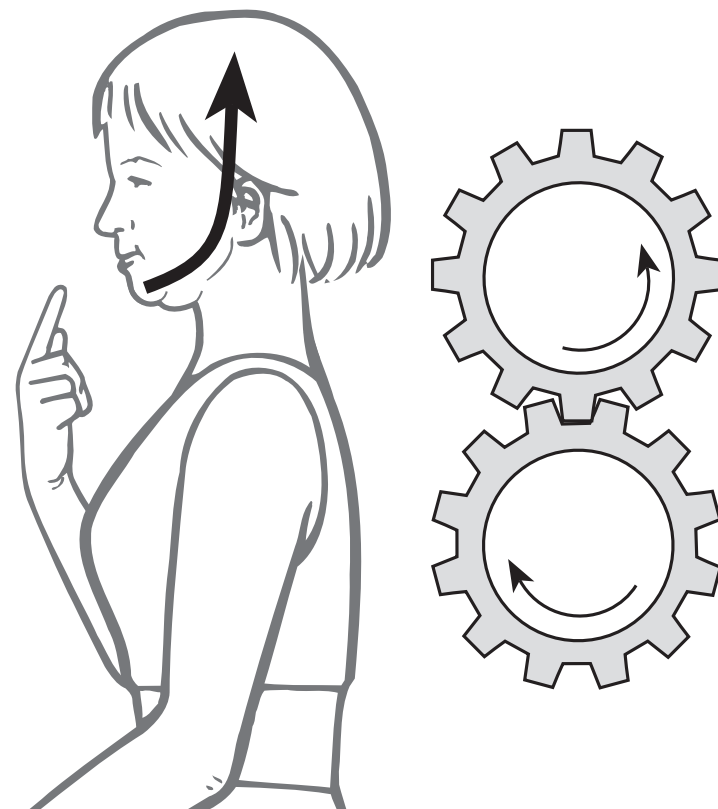
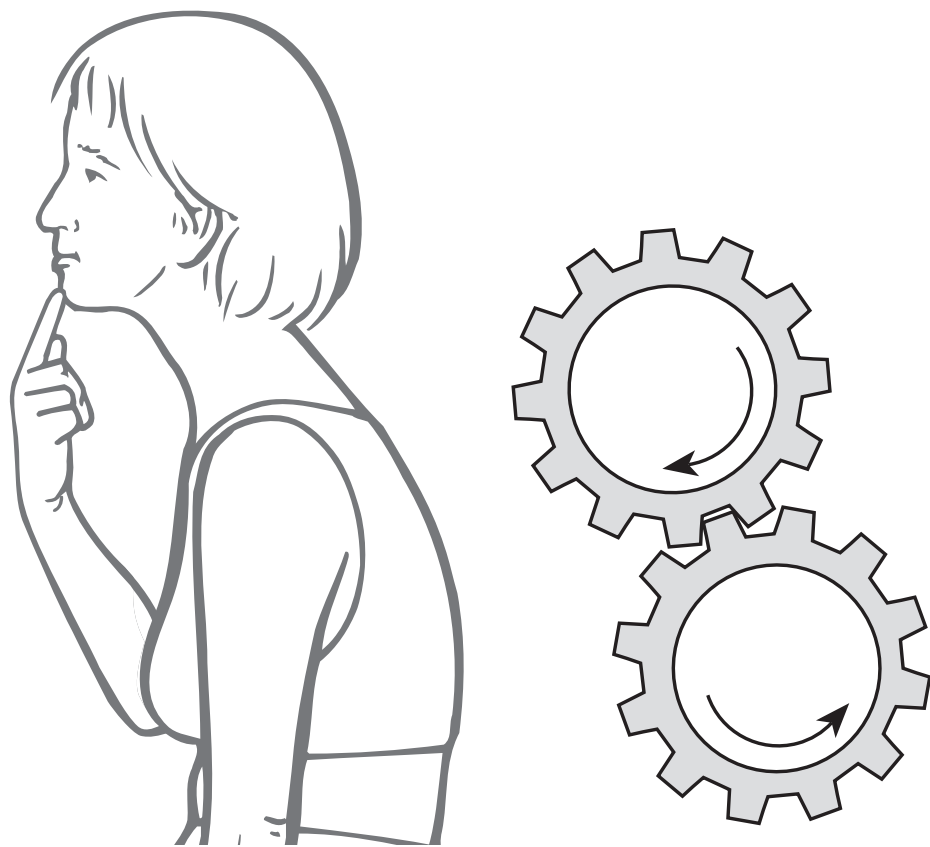
FINAL POSITION

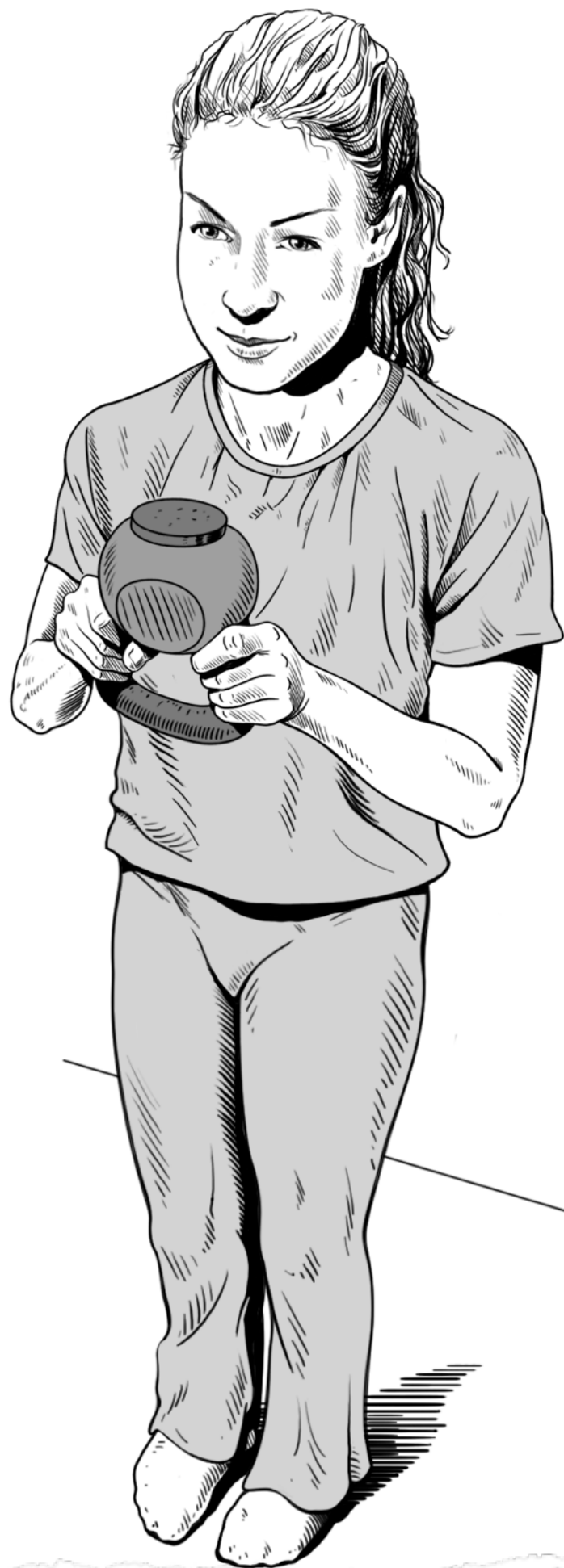


7. THE HALO



Nod Yes to find “neutral” Cervical Spine





8. Cressey Upper T-Spine Mob



T4 Bench



Wall Slide w/ Foam Roll



Wall Slide w/ Band



Wall Slide w/ Band



Y w/ Lift Off



Back to Wall Shoulder Flexion

