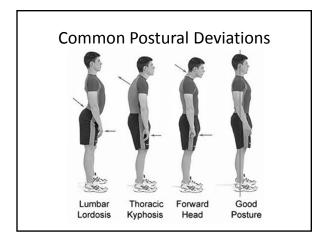


# **Understanding Posture**



- Understand neutral spine
- Observe postural deviations
- Improve firing sequence of the core muscles
- Train in all 3 planes
- Add resistance

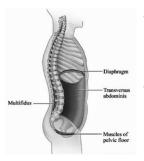


# **Keys To Improving Posture**



- Goals for exercise to improve posture:
  - Assess curvature of the spine.
  - Evaluate reason for deviations.
  - Help client achieve a neutral spine.
  - Challenge the supporting structures in various planes of motion.

# "Neutral Spine" Depends on Strong Muscles



- Local Muscles (Inner Unit):
  - Directly attach to spine
  - Provide stability and segmental control
- Global Muscle (Outer Unit):
  - Large torque producing muscles
- Provide general stability

# **Essentials To Posture Training**



- Establish a neutral spine
- Challenge the support structure surrounding the spine:
  - Change Position
  - Change Resistance
  - Change Speed
- Change Vector
- Understand why muscles are "tight"

# Tall Standing Relaxed

- The plumb line should fall as follows:
  - The line begins at the ear.
  - Midway through the shoulder
  - Through the lumbar spine
  - Slightly posterior to hip joint.
  - Slightly anterior to the axis of the knee
  - Slightly anterior to the ankle



# Lumbar Spine and Pelvic Posture

- Stand with the head, mid back, and hips against a wall.
- Slide your hand behind your back by the lumbar curve.
- Should be able to slide hand to about knuckles



#### **Anterior Pelvic Tilt**



- Shortened Muscles:
  - Lumbar Extensors
  - Psoas
  - Rectus Femoris
  - Adductors
  - Tensor Fascia Latae
- Lengthened Muscles:
  - Abdominals
  - Hamstrings
  - Gluteus Max, Med, Min

#### **Anterior Pelvic Tilt Corrections**





#### Posterior Pelvic Tilt



- Shortened Muscles:
  - Hamstrings
  - Gluteus Maximus
  - Abdominals
- Lengthened Muscles:
  - Psoas
  - Iliacus
  - Lumbar Extensors

#### **Posterior Pelvic Tilt Corrections**





# **Thoracic Spine**



- **Shortened Muscles:** 
  - Cervical Erectors
  - Pec Minor/Major
  - Upper Trapezius
  - Scalenes
- Levator Scapulae
- Lengthened Muscles
  - Deep Cervical Flexors Rhomboids
  - Serratus Anterior
  - Middle/Lower Trapezius

# **Improving Thoracic Kyphosis**



# Addressing Forward Head Posture



- Earlobe is anterior to AC joint. Often found with upper cross syndrome.
- Causes include:
- Prolonged sitting
- Improper desk set up"Text neck"
- Inefficient breathing
- Goals are to remove/limit causes & strengthen thoracic extensors and deep cervical flexors.

# Prone Chin Tuck W/ Thoracic Ext.





# **Quadruped Chin Tuck**

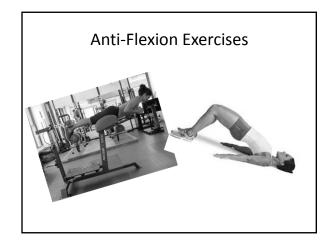


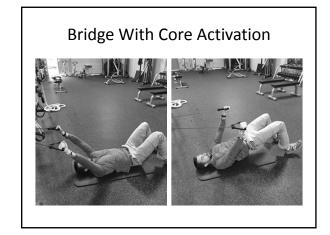


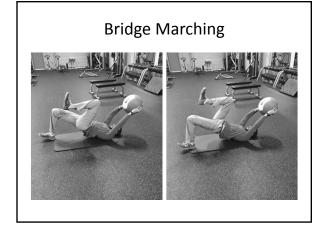
# **Integrating Stability Training**

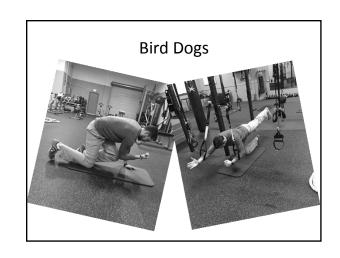


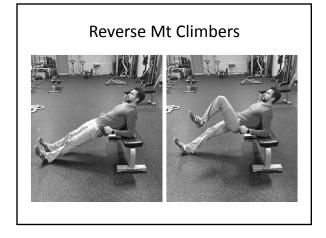
- 1st Step With Stability Training Is PREVENTING movement from occurring.
  - Anti Flexion
  - Anti Extension
  - Anti Lateral Flexion
  - Anti Rotation

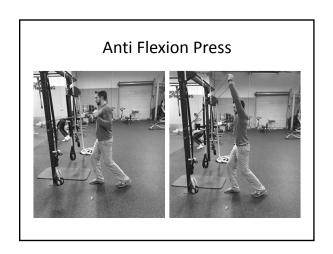


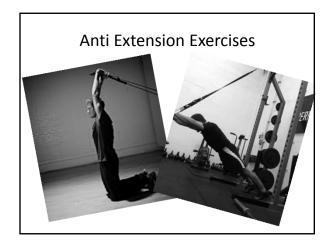


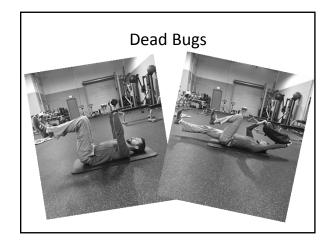


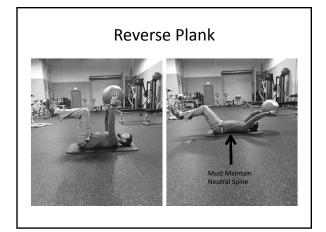


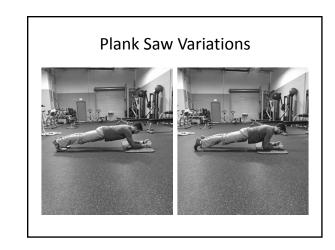


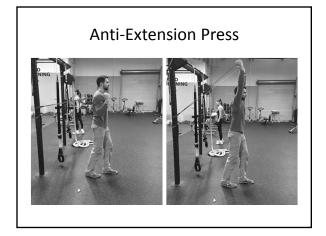


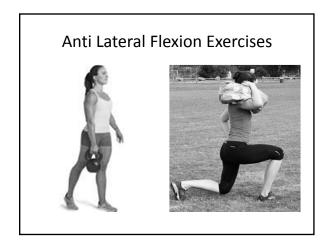




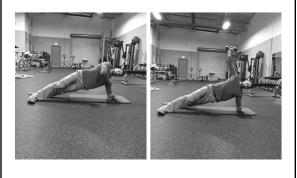












Farmers Walk





Windmill Variations





**Anti Rotation Exercises** 



**Anti-Rotation Press** 





MB Plank Roll



