



# LIMITLESS

Fine Tune Alignment for Group Training

PRESENTED BY

With Keli Robersts and Leslee Bender



## Alignment Redesigned brought to you by Keli Roberts and Leslee Bender for Savvier

- With 60 years of working in the fitness Industry combined
- Over 30 certifications
- Wide diversity in education and experience
- Bringing a new essential program that applies to group or individual fitness trainers
- Experience the importance of Alignment in all activities



# Fine Tune Alignment for Group Training

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A program designed to look at how alignment affects every movement that we choose to do



# Defining Alignment

- This photo was taken in May 1956, at a chiropractic convention in Chicago. Part of the convention was a beauty contest and you can see the three proud winners with their shiny trophies. Their category? Perfect posture.
- At the time, chiropractic was still a relatively new profession and the event was hosted to improve and promote its reputation. The three winners were chosen based on the beauty of their X-rays and their standing posture. The contestants were asked to stand on a pair of scales with one foot on each and those who managed to distribute their weight equally on each were said to have the best posture.



# Objectives

- Learn the why behind movement to help prevent injuries, improve posture, increase strength, mobility and stability
- Apply Physiological, Biological and Behavioral Sciences to the program
- Review Postural issues and their causes
- Define the planes of motion as it relates to alignment
- Defining the importance neutral spine and positions
- Examine why the core is crucial in alignment
- Review the influences of alignment in exercise program design





## Defining why correct alignment is crucial



- Creating a conscious movement for a subconscious result
- Continuously training in poor alignment will result in how one carries themselves throughout the day
- Poor alignment places stress on the entire kinetic chain from the ankles, knees hips and back
- Poor alignment results in back pain and injuries



“It only takes up to 72-hours of non-load bearing position (sitting) to start to negatively affecting the anti-gravitational muscles (posture), which in turn affects breathing, circulation and finite motor acuity.” -Dr Joan Vernikos

“Better than 90% of the brain’s output is directed towards maintaining one’s posture in its gravitational field. Therefore, the less energy spent on maintaining one’s posture, the more energy is available for healing, digestion, and thinking.” - Roger Sperry, Nobel Prize Winner

- “For every compensation, there is an equal and opposite compensation to ultimately balance the head to keep one’s eyes level. This is Newton’s third law and the main reason why we develop tightness and eventually pain.” – Patrick Mummy, Author

# Our 3 Science's

- The PHYSICAL sciences are the world we live and the affect of gravity upon our bodies
- The BIOLOGICAL sciences are what the body is comprised of
- The BEHAVIORAL sciences are our emotions and what drives us



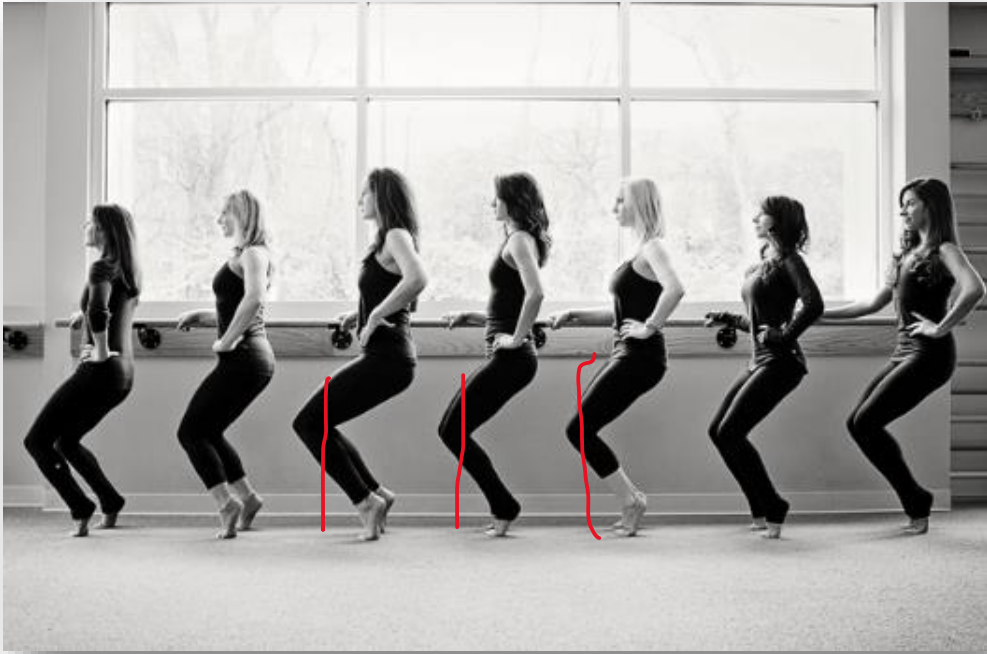


# Alignment must be corrected in order to prevent overuse or chronic injuries



- The cues that could be used to correct this plank?
- How would you regress it?
- Where is there undue strain placed?
- What is a better alternative?

For example, which demonstrates better alignment for your knees in a barre class? And why..



# Lower cross syndrome /lordosis

## Anterior pelvis carriage



- Weak glutes, calves abdominals
- Extremely tight hip flexors
- Tight lower back
- Should not be performing supine flexion without support!

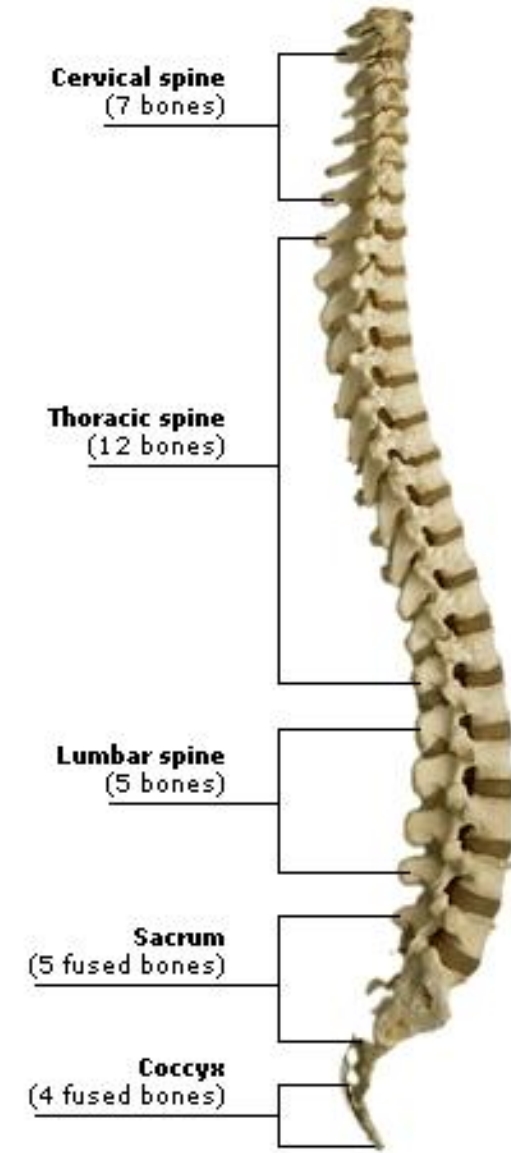


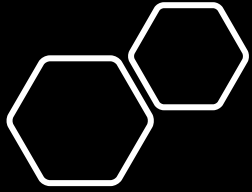
Upper cross  
syndrome/kyphosis flat  
back forward head

- Stemming from supinated feet or high arches
- Tight hamstrings and gluteus (all three)
- Should not be lying supine!
- Rotational movement is necessary standing

# The Importance of Neutral Spine as it relates to functional Alignment

- Maintain muscular balance
- Allows for more load on the connective tissue and not on the spine
- Less energy output to maintain a desired pain free position





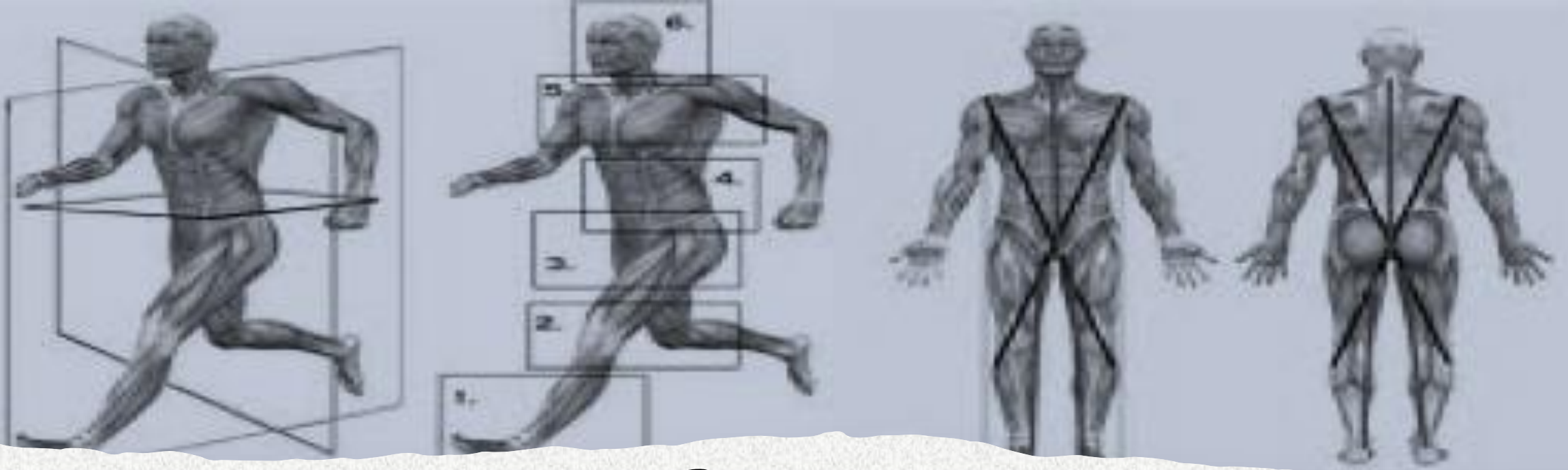
Which student is not in neutral spine and how would you correct them?

- What maybe causing a compromised squat?
- Where are there potential issues if they are not in neutral?
- Is it functional to squat with hands behind the head?





Appropriate range of motion in a functional neutral spine for each individual student can be achieved



All three planes as it relates to alignment

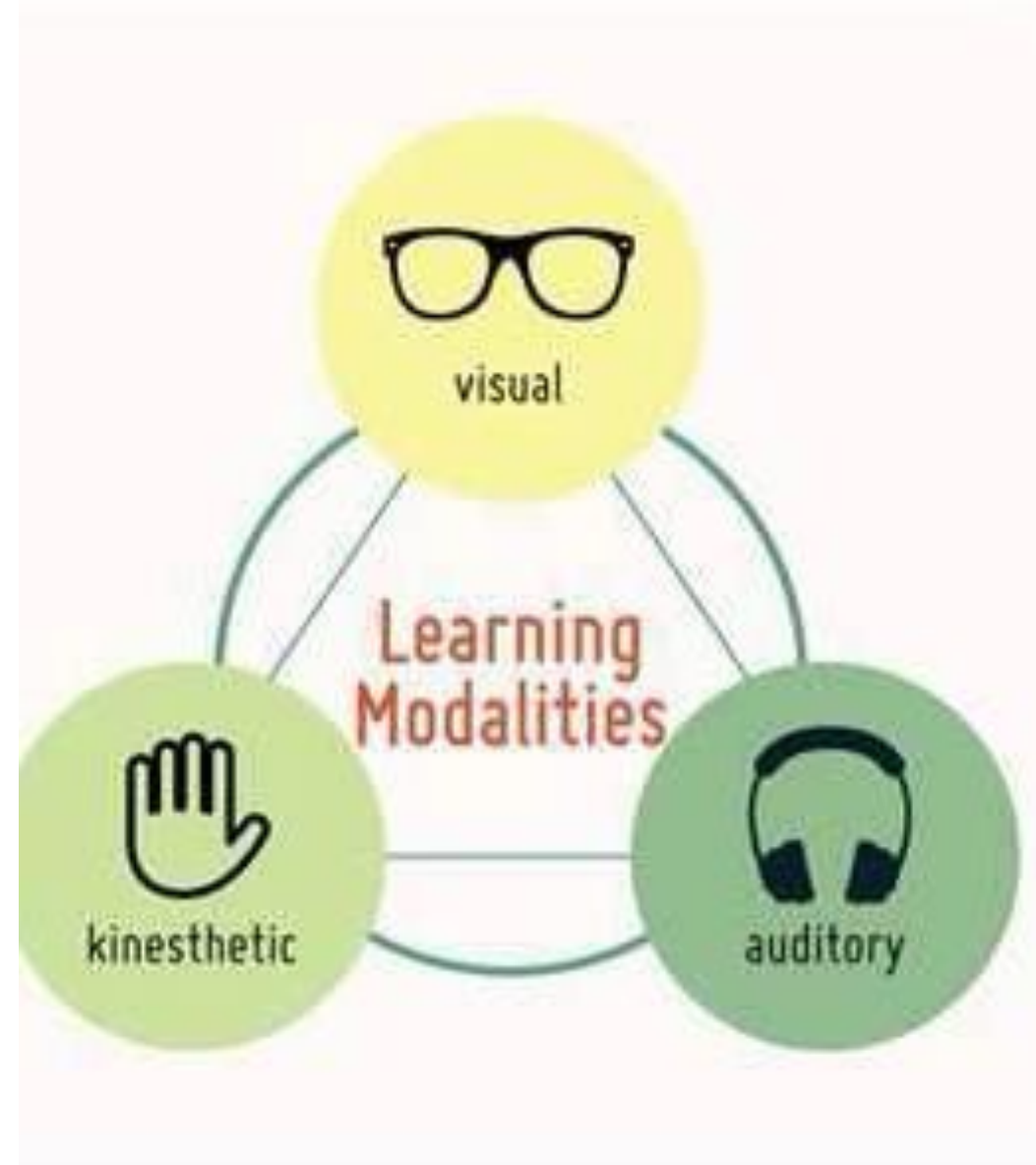
- Sagittal, anterior and posterior ( lunge)
- Frontal, right and left lateral (side bend)
- Transverse rotational (gravity not an influence)
- Combine all three planes



## Cue, coach, connect alignment essentials in group classes with diverse learners

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- Cognitive: The person who has difficulty with body awareness.
- Associative: The person who has better body awareness.
- Autonomous: The person who has understanding of their body mechanics.
- What kind of learner are they?
- Kinesthetic hands-on
- Visual
- Auditory



# Hierarchy of Alignment cueing for success

- The exercise
- How to perform
- Where to feel the movement
- Are you feeling the movement given



# Alignment during core exercises is essential for everyone!

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- How and where to place the ball for the best results
  - Direction of visual
  - Neutral spine
  - Cuing where to feel it
  - Variation
- 



# Stability/Mobility Relationships

## **Stable**

- Foot
- Knee
- Lumbar Spine
- Scapulothoracic

## **Mobile**

- Ankle
- Hip
- Thoracic Spine
- Glenohumeral Joint



Let's Move!



Standing

- Bilateral Bend and Lift
- Single Leg
- Push
- Pull
- Rotate





## Standing Mobility:

Key areas -

Ankle

Hip

Thoracic Spine

Glenohumeral

Seated

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Hinge Back: V-Sit

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Hinge Forward: I-  
Y-T-W



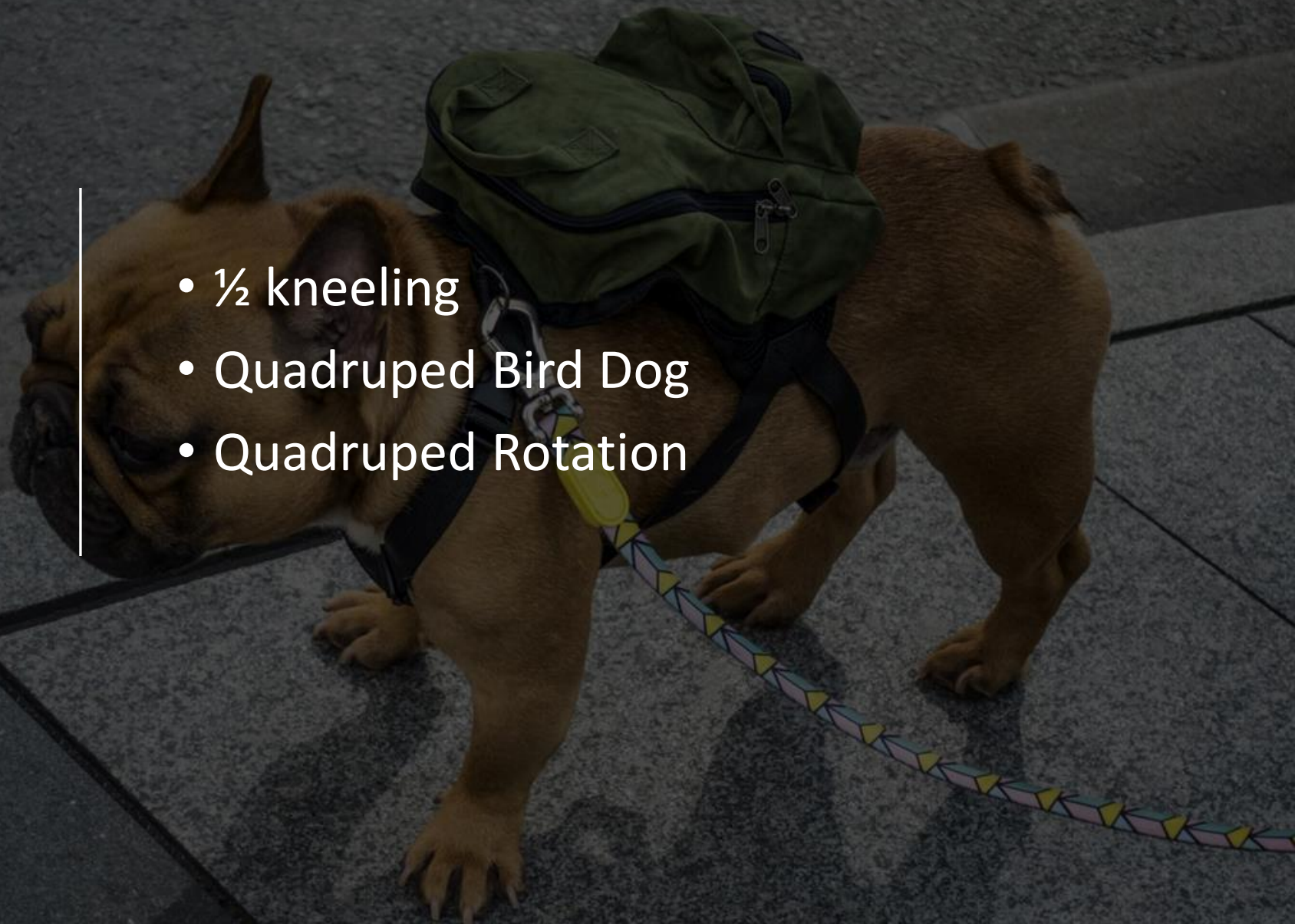


Seated Mobility:

Spinal-  
Rotation  
Lateral Flexion  
Extension

# Quadruped

- ½ kneeling
- Quadruped Bird Dog
- Quadruped Rotation



# Kneeling Mobility

Cat Cow

½ Kneeling Psoas

Camel

Kneeling Gastroc

Puppy

# Side Lying

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## Side Bridge

- Static and Dynamic Variations

## Side Lying on Bender Ball (Earthquake)

## Side Plank

- Static and Dynamic Variations
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Side Lying Mobility:

Quad/Psoas  
Thoracic Rotation w-  
ribcage hold

# Prone

Plank

Swimming

Opposite arm and leg  
raise



# Prone Mobility:

- Cobra
- Up Dog
- Down Dog
- Quad/Psoas Stretch



# Supine

- 'Baby Walks'
- Dead Bugs
- Bridges
  - Bilateral
  - Unilateral
  - Walking







# Supine Mobility

- Reverse Plank/Tabletop
- Hamstring/Psoas
- Modified Pigeon/Glute
- Spinal Rotation



# Thank You For Joining Us!

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