

# *Plyometric and Trunk Training in Youth Hockey Development*

## **2019 NSCA HOCKEY STRENGTH & CONDITIONING CLINIC & LIVE STREAM**

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# Conflict of Interest Statement

**We have no actual or potential conflicts of interest in relation to this presentation.**



Colorado Thunderbirds



Krivo Hockey



Arapahoe Warriors

# Trunk Training

## Teaching to enhance competency

- Keep it vanilla
  - Neutral spine
  - How to brace the core
  - Movement assessment

# Quadruped Series



## 6 Points of Contact (establish position)

- Ankles dorsiflexed
- Knees under hips
- Hands under elbows under shoulders
  - Joint position dictates muscles function

## Observe Asymmetries and Loss of Position

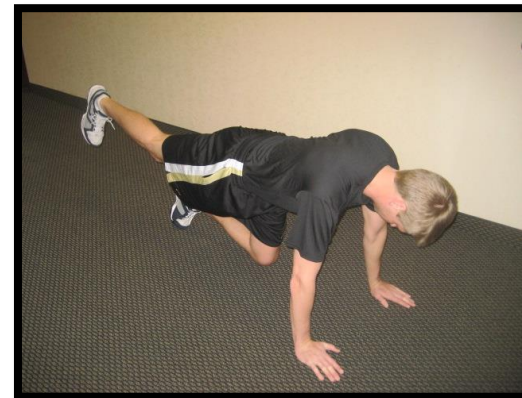
- Biomechanics / Limb:Torso length ratio

## Exercises

1. Fire Hydrants
2. Hip Circles
3. Scorpion Kick Backs
4. Lateral Leg Reach

## Teach Neutral Spine

- What does it mean to brace the core?
- Anterior/Posterior Pelvic Tilt (cat/cow)



# Relevant Exercise Choices

## Plank Series

- Prone
- Side Plank



## Dead Bug

- Lumbar position
- Control of position through ROM
- Progress and regress as needed



## Bird Dog

- 6 points of contact
- Core braced
- Simultaneous contralateral limbs

# Plyometric Training

- Assess Squat Pattern
  - Teach athletic position
  - Biomechanics/ Limb/torso length ratio & joint architecture
  - Foot position could change based off current dorsiflexion
- Rate of Force Control Before Rate of Force Development
  - Compression, Distraction, Shear, Torque
  - 3 degrees of motion (sagittal, frontal, transverse)
  - Importance of assessing ROM

# Jump Progression

- Snap Down
- NCM (focus on landing)
- CM (focus on landing)
- Sagittal
- Lateral
- Transverse
- Full Extension (focus on landing)
- Jump, Hop, Bound (unilateral)
- NCM, CM, Continuous, Depth
- Linear/Horizontal, Lateral, Vertical