



**2022 NSCA TACTICAL ANNUAL TRAINING** #NSCATactical22

# *CONFLICT OF INTEREST STATEMENT*

I have no actual or potential conflict of interest in relation to this presentation.

# Your Shoulder Health Is In Your Hands:

## How The Hand Impacts Upper Extremity Mobility and Performance In The Tactical Athlete



Dr. Matthew Zanis, PT, DPT, FAAOMPT, OCS, ATC, CSCS

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# Objectives

1. Understand the functional anatomy of the wrist and hand and how sensory input dictates elbow and shoulder health and function.
2. Discover the common upper extremity functional limitations related to the tactical athlete and operator and understand the patterns that lead to various pain presentations related to operating a firearm.
3. Practically apply new strategies of working with the wrist and hand to enhance performance and reduce risk of injury during training and field work.



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# Why Are Our Shoulders So Jacked Up?

”Once I Turned 40 The Wheels Fell Off”

- Open Chain vs. Closed Chain Movement
- Proximal vs. Distal
- Prioritization Adaptations
- **\*\*Previous Injury**



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“There is NO Bad Posture, Only and Inability to  
Move Between Them”

Dr. Matthew Zanis



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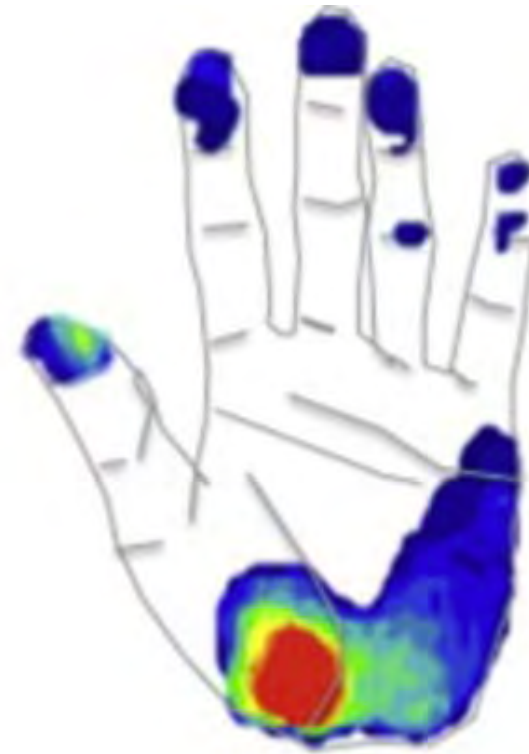
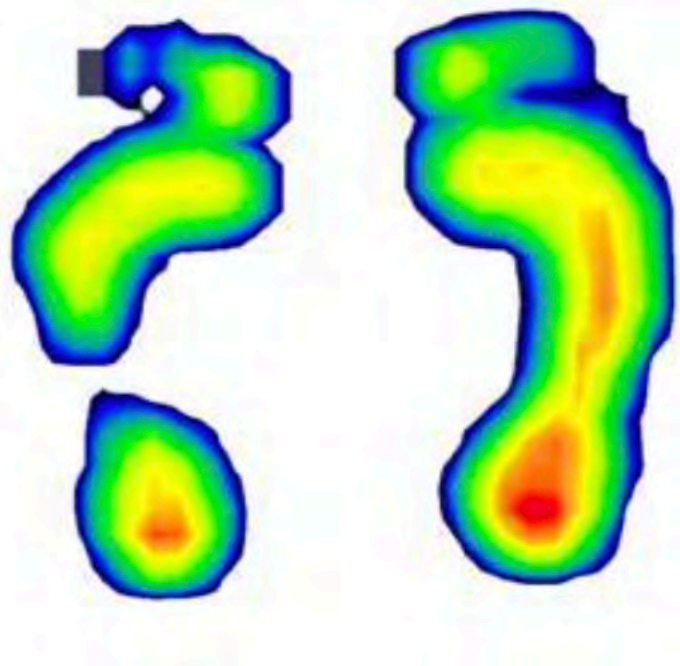
# Biomechanical Adaptations



# Trigger Finger Problems

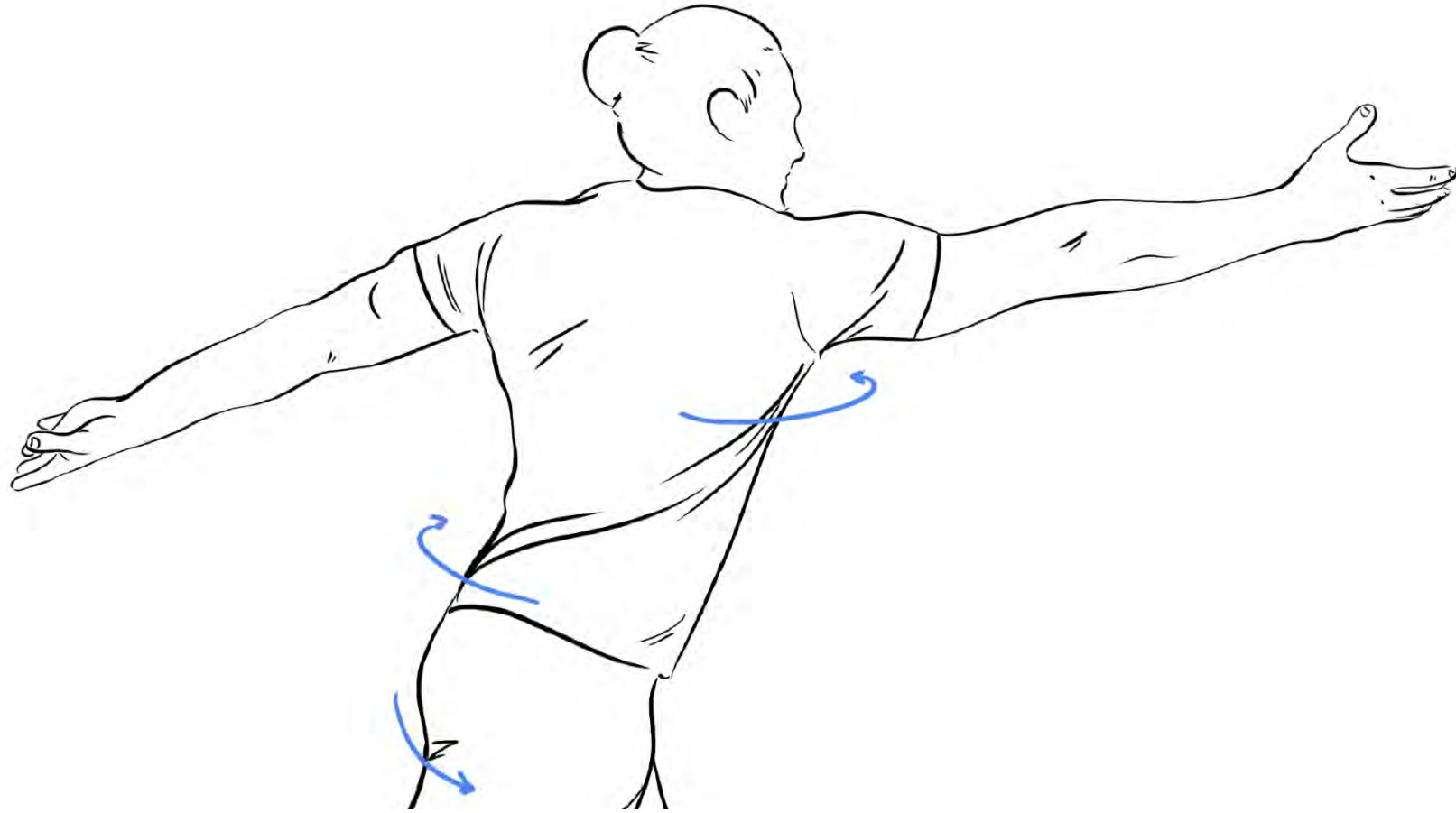


# Time to Assess Foot...I Mean Hand Pressures!

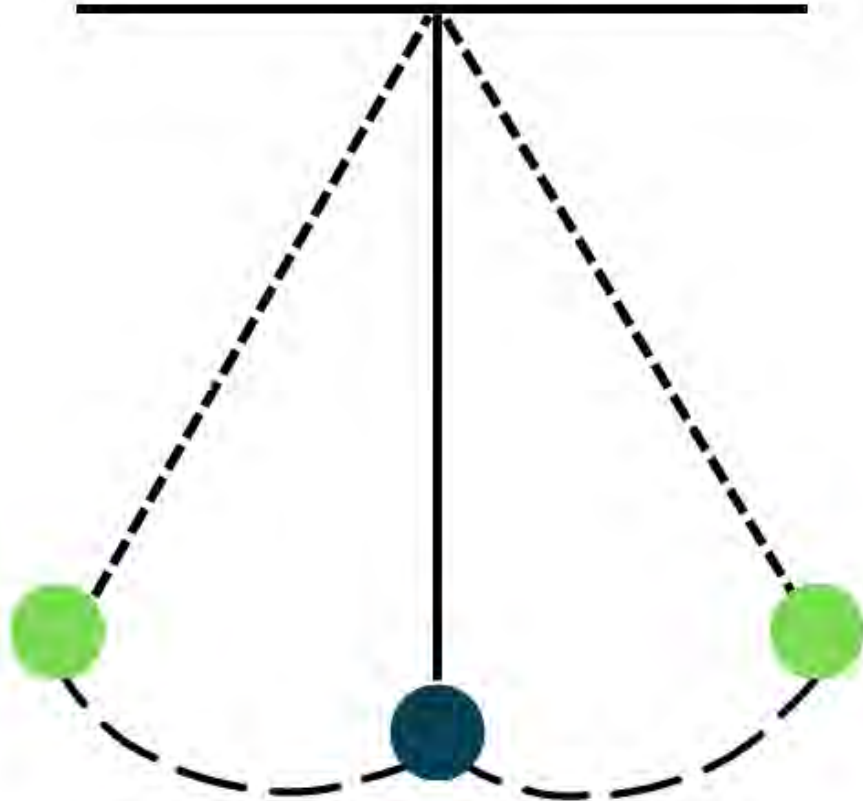


# Pressure Dictates Function

- Spiral Patterns

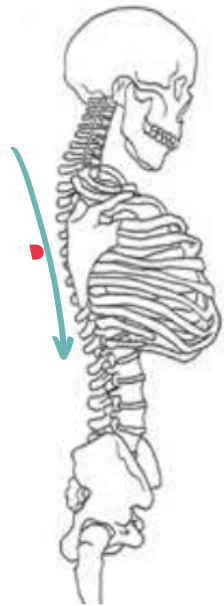


# Shoulder Blade Assessment

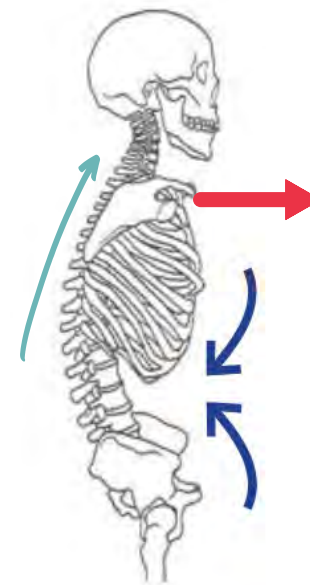


# Effect of the Breath, Spine, and Ribcage on Shoulder Blade Function

## Spinal Extension



## Spinal Flexion



“It’s Not About The Movement, It’s The Intention  
Behind the Movement That Matters”

Dr. Matthew Zanis



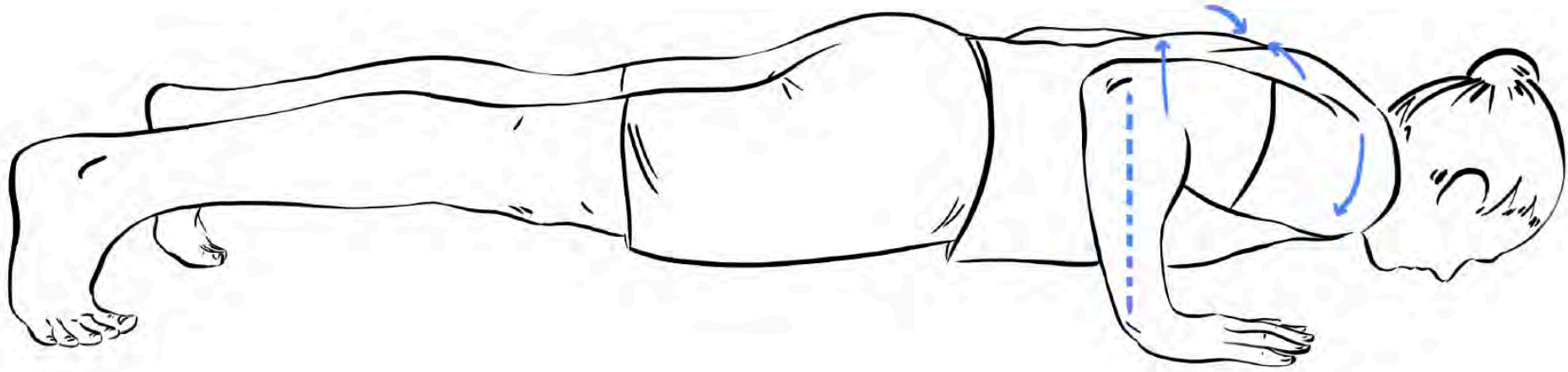
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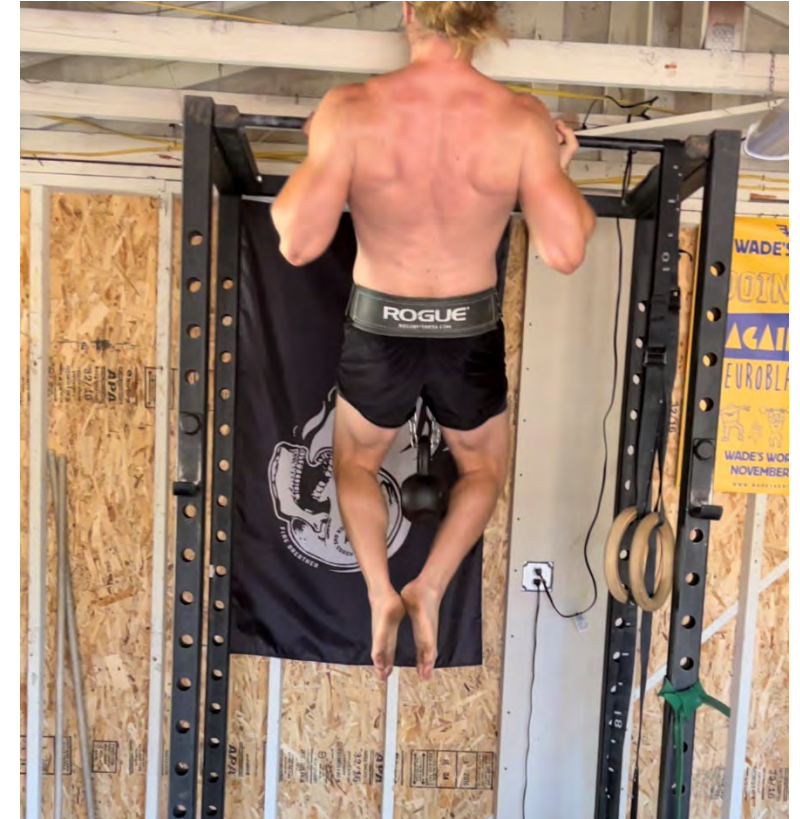
# Movement Integration!

- CKC Pronation/Supination and Fingertip Push Ups – Warm up!
- Hollow to Down Dog
- KB Arm Bar
- Table-Top Transitions
- Push Up
- Pull Up

# A Push Up is Not Just a Push Up



# A Pull Up is Not Just a Pull Up



# “Safety and Trust are the Foundation of Good Movement”

Dr. Matthew Zanis



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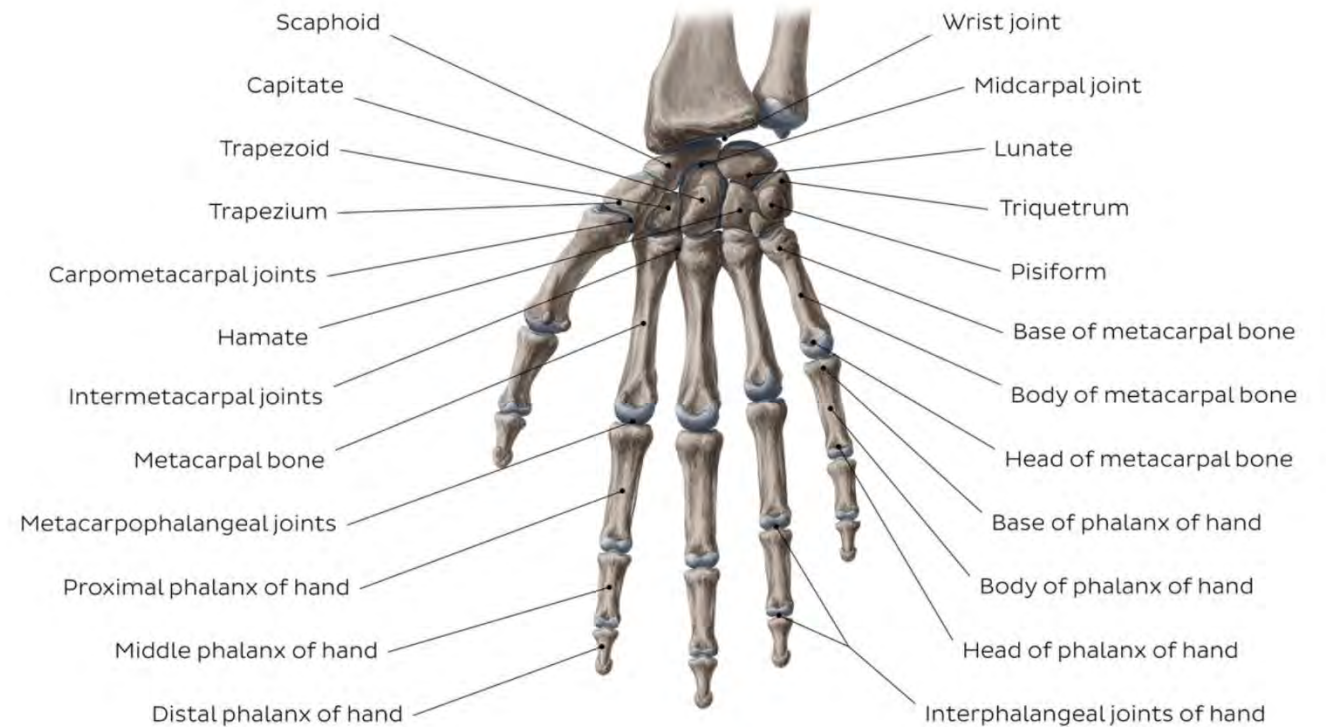
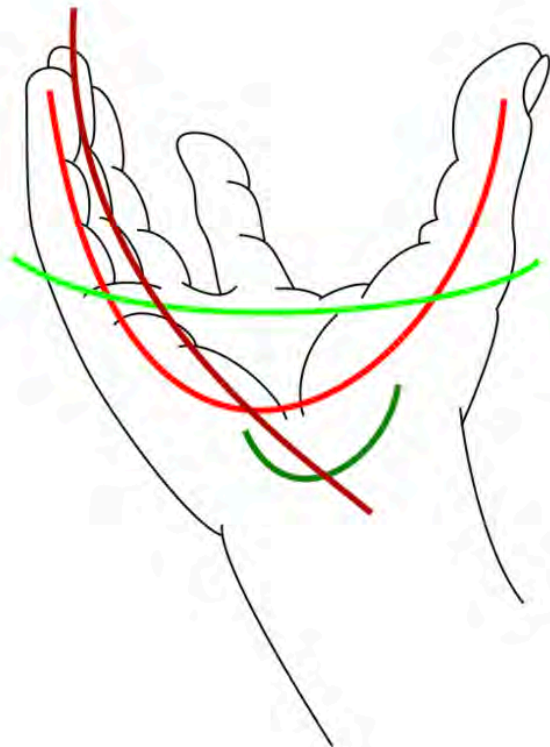
# Why Is This So Valuable?



# Thank You!

## Questions?





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# Bones of the upper limb

Anterior view

