



Mobility and Strength Training

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Warm Up

- Increase blood flow to working muscles
- Raise core temperature
- Increase heart rate
- Prep the body for the following work



Example of a Warm Up





Mobility

- What is mobility?
- When is mobility important?
- Ways to increase mobility..
- Maintaining mobility

Soft Tissue Issues



- Adhesions in muscle fibers causing limited range of motion in the joints

Glute Smash

- One of the most effective ways to break up adhesions is to apply constant pressure



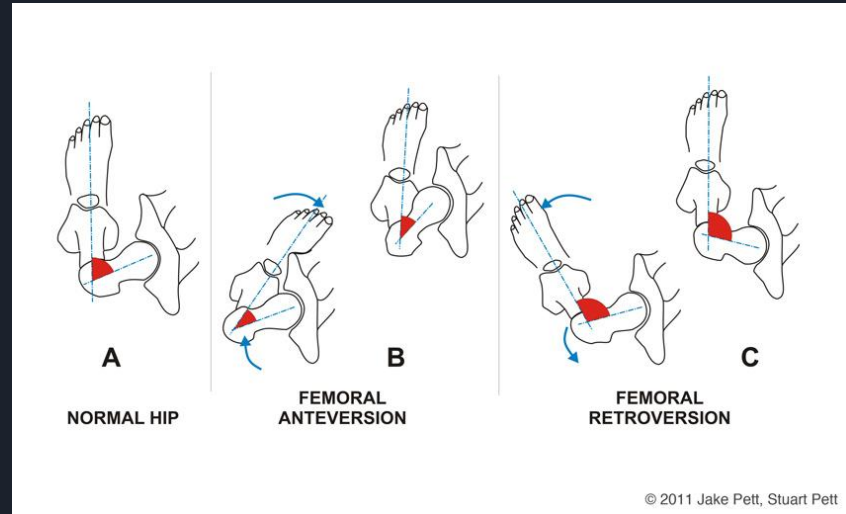


Other Problem Areas

- Pec Minor, Teres Minor, Hamstring, Calf
- Self massage, lacrosse balling, foam rolling, or bar smashing are effective strategies to self release

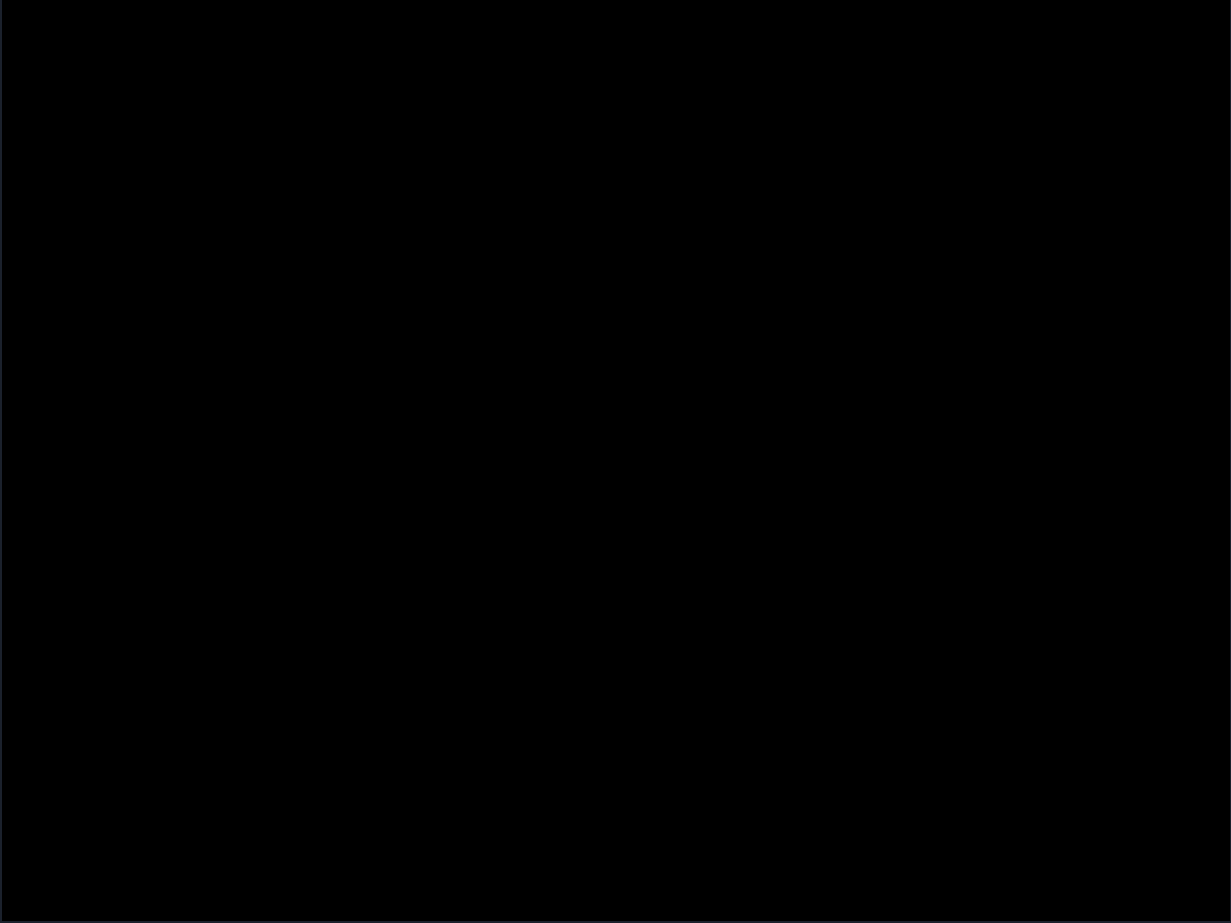
Anatomy

- An athlete's anatomy may be limiting range of motion
- Necessarily not a bad thing
- Joints can be opened up through soft tissue and distractions



Banded Distractions







- D1 Bench Press 3
- C1 Medial 3x 8
- D1 Inverted Rows
- E1 RDL 3
- FSO Pullup Press
Band Rotation
Bank 2x5
- FDE Core
Loop Roll-down





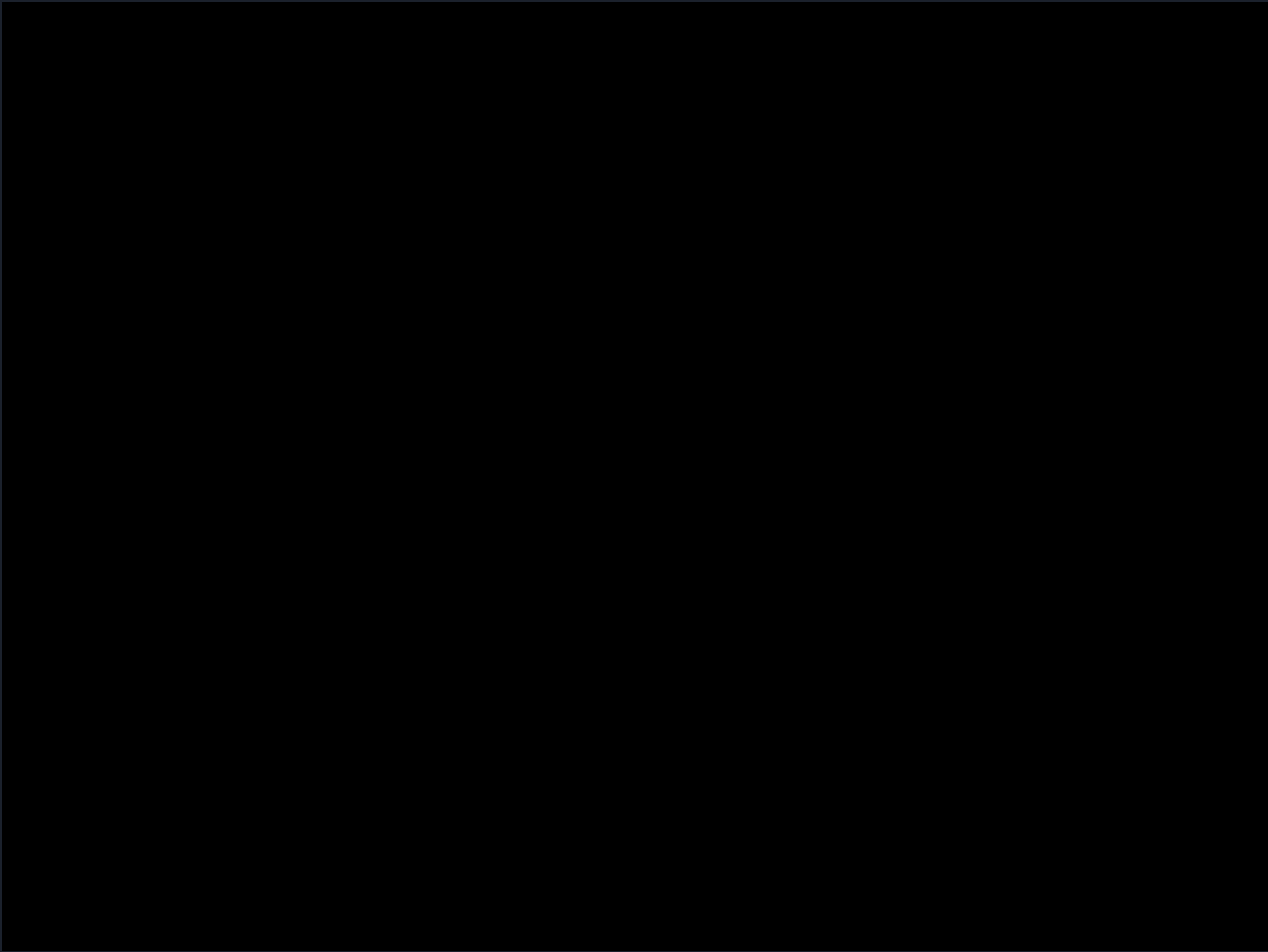
Neuromuscular Control

- After checking off the previous two boxes an athlete may just not have the awareness of their body in space to be able to get into positioning
- This is called proprioception
- Can be as simple as being unable to touch your finger to nose or as complex as posteriorly tilting the pelvis while swinging

Simplicity is KEY



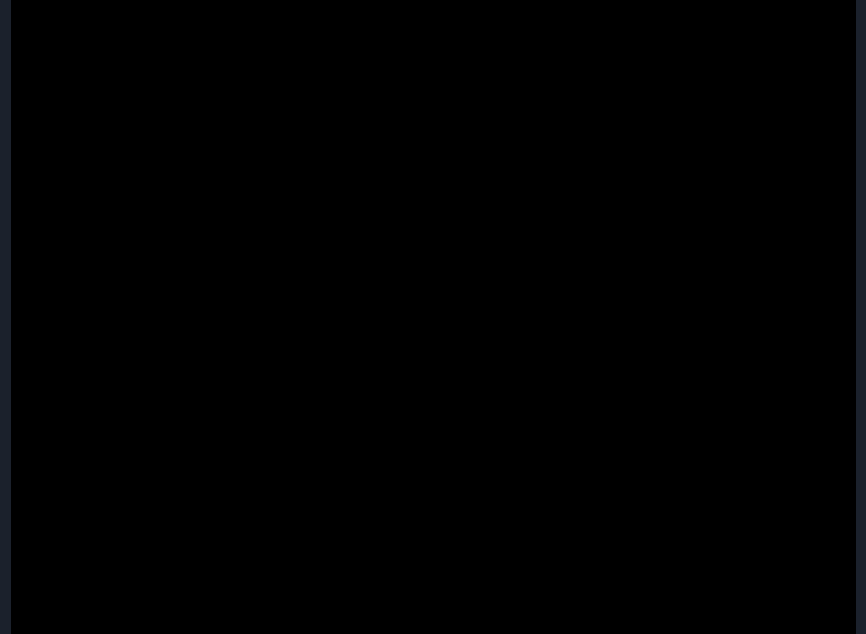






ISO Holds/Tissue Regeneration

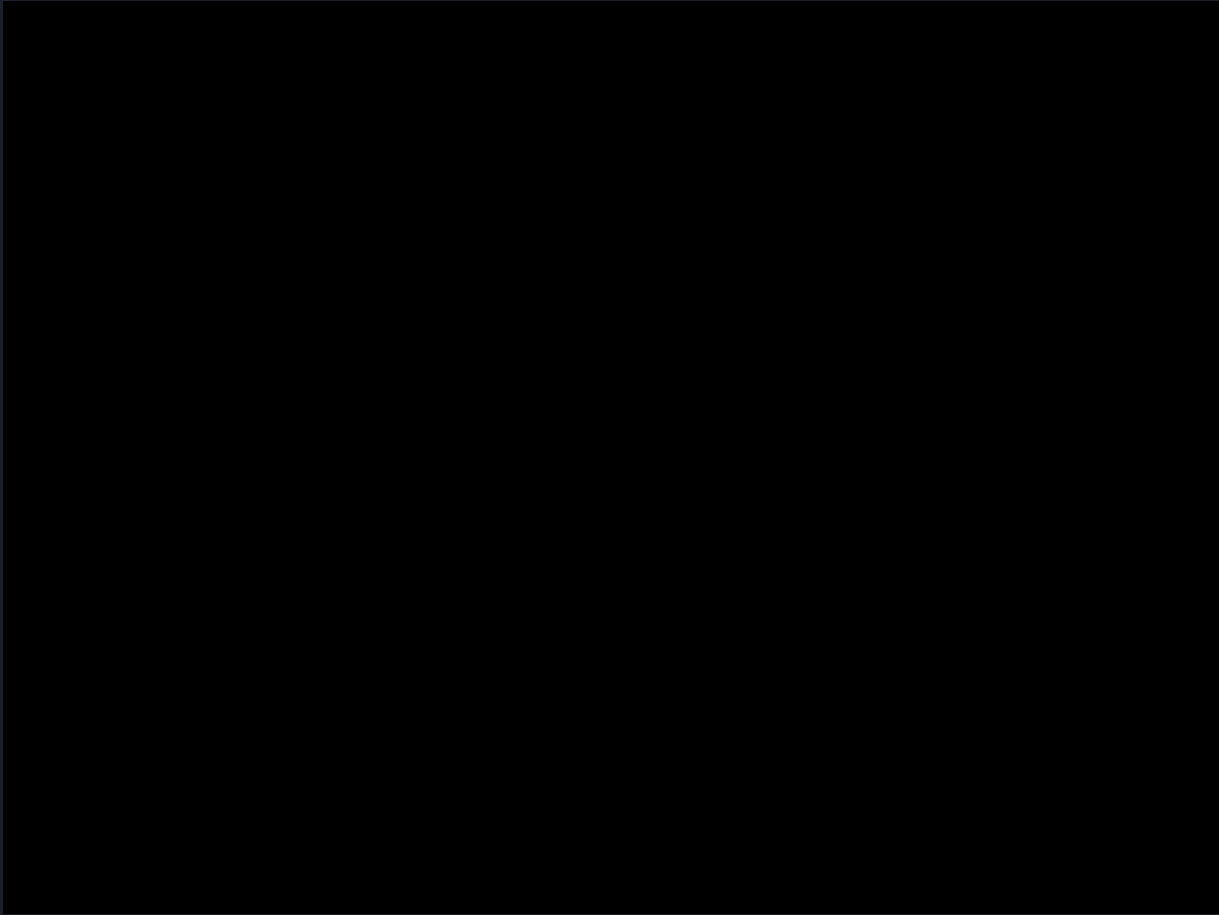
- Performing an isometric hold in positions not only is great for teaching movement quality but allows the connective tissue and muscle fiber working to adapt to the movement

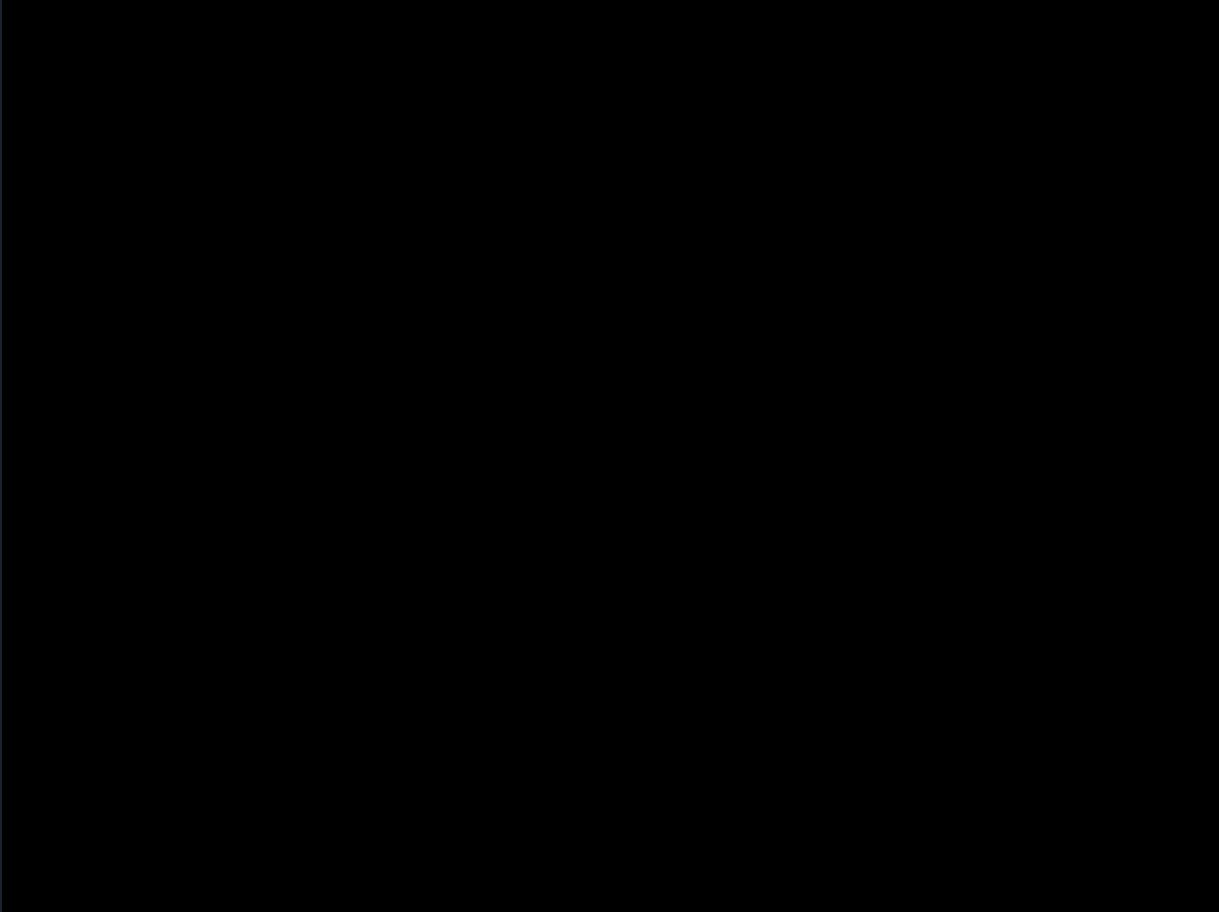




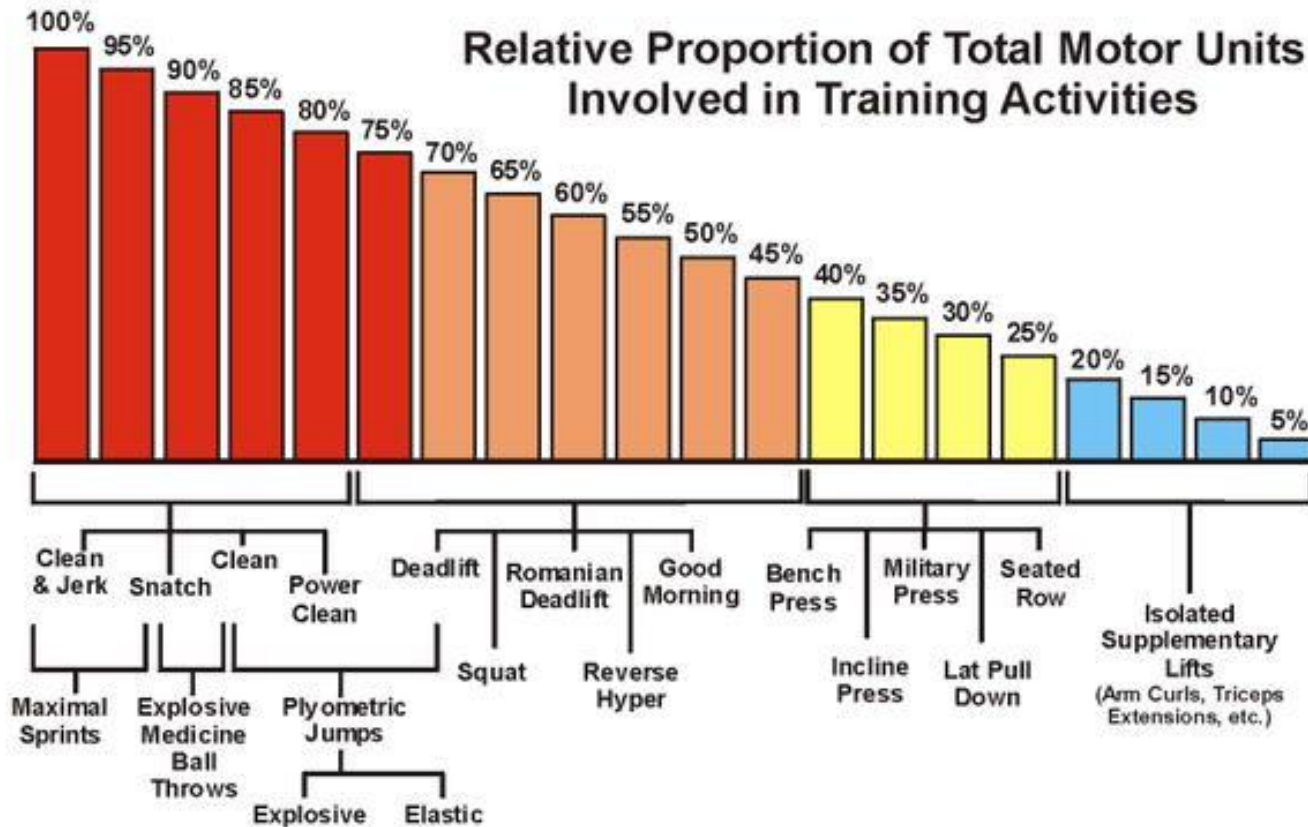
Sprint and Jump Training!!!







Relative Proportion of Total Motor Units Involved in Training Activities



Training Residuals

- Maximal Speed has a residual life of 2-8 days
- Aerobic Capacity 25-35 days
- Maximal Strength 25-35 days

Residual Training Effects

Motor Ability	Retention	Physiological
Oxidative Energy System	30±5	Increased number of aerobic enzymes, mitochondria, capillary density, hemoglobin capacity, glycogen storage, higher rate of fat metabolism
Strength	30±5	Improvement of neural mechanism, muscle hypertrophy
Glycolytic Energy System	18±4	Increased anaerobic enzymes, buffering capacity and glycogen storage, higher possibility of lactate accumulation
Repeat-Power	15±5	Improved aerobic/ anaerobic enzymes, improved local blood circulation and lactate tolerance, repeat sprint ability
ATP/CR-P	5±3	Enhanced resynthesis of CR-P
Speed	5±3	Improved neuromuscular interactions and motor control, increases anaerobic power

Adapted from: Issurin, V. (2008). "Block Periodization: Breakthrough in Sports Training." New York, NY: Ultimate Athlete Concepts.



Strength Training

- Time under tension
- Increase eccentric (negative) time
- Master movements with ISO Holds
- Dominate Sport Skill
- Be Creative















Programming

- Understand workload and fatigue
- Order of importance (Sprint, Jump, Medicine Ball Throws)
- Sport Skill is always priority
- Strength and mobility are just tools in the tool box





Questions? Contact Info

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