2017 Coaches Clinic

Strength Development for Athletes
Olympic Weightlifting
Implementation & Progression

Dillon J. Painter, MS, USAW, CF-L1
Olympic Weightlifting

- Snatch
- Clean & Jerk

- “Applying external load to a plyometric movement”
- Total Body
- Recruit 90% of fast twitch muscle fibers
- Technique is critical; especially controlling the path of the bar
- Do first in lifting session while CNS is fresh
Why Olympic Weightlifting & Sports Performance?

- Majority of sports require explosive power (strength + speed) to play up to full potential
  - Power = ability for body to produce the greatest amount of force in as little time as possible
- The 2 Olympic lifts and their variations have been shown to increase velocity of movement & rate of force production
- Maximum strength (force) can be enhanced by performing Olympic variations; such as, heavy squats, deadlifts, and presses
- The Universal Athletic Position (UAP):
  - Standing in quarter-squat, also known as Base Stance
  - Most common position in sports – a static, “ready” position
  - Olympic Weightlifting – when performed correctly – move through the UAP during the first and second pulls = hip extension & ground reaction forces to explode!
What Does Research Say?

• Carlock et al. concluded that weightlifting ability and vertical jump performance were strongly linked together (5, 10).

• Channel et al. indicated that Olympic lifts as well as power lifts provide improvement in vertical jump performance. Additionally, Olympic lifts may provide a modest advantage over power lifts for vertical jump improvement in high school athletes (11).

• Chiu et al. offered advice for strength and conditioning specialists for successfully implementing the “stop snatch” and “stop clean” into a conditioning program for improved athletic performance (7).

• Hori et al. concluded that high performance in the “hang power clean” is significantly related to jumping and sprinting (12).

• Hori, Newton et al. illustrated that Olympic Weightlifting improves the development of power, high-load speed strength and athletic performance (2).

• Waller et al. offered advice for strength and conditioning specialists for successfully implementing the “power snatch” into a conditioning program for improved athletic performance (3).


What to teach first?

• #1 priority when learning Olympic movements is controlling the path of the bar!
• Step-by-step, simple-leading-into-complex method; better known as **progressions**

• Flexibility Assessments:
  • Snatch Deadlift & Overhead Squat = Snatch
  • Deadlift & Front Squat = Clean
  • Overhead Press & Split Squat = Jerk
Progressions – Snatch

• Power Position
  • Most vital part of the Olympic movements
  • Only way to produce optimum velocity on the bar
    • Keeps the bar in close proximity to the hips and legs!
• Power Position Hop & Land (Jump Shrug)
  • Emphasizes how important leg drive is to the movement; Triple Extension
  • Triple Extension = EXPLOSIVE
• Power Snatch (Power Position)
  • First time the “catch” is introduced; pulling barbell into overhead position
  • Elbows lock overhead simultaneously with the feet landing on the floor
  • Barbell is received in a quarter squat position
  • Keep barbell in vertical plane of the body, high & wide arms
Progressions – Snatch (continued…)

- Power Snatch (Mid-Thigh)
  - First time athlete taught how to bend over with barbell while maintaining a neutral spine
  - Mid-Thigh position is directly above the knee caps
  - Shoulders in front of the plane of the barbell, knees remain bent
  - Allows athlete to understand that tension in the hamstrings is important
  - Emphasizes patience, control, and the necessity for keeping bar close to body

- Power Snatch (Low-Hang)
  - Barbell is lowered below the knee caps
  - Knees must be pulled back (not straightened completely) while bar passes
Progressions – Snatch (continued…)

• Power Snatch (Floor)
  • First time athlete exposed to starting position from the ground
  • Starting position:
    • Feet directly under the hips
    • Toes slightly turned out
    • Knees flaring out – contact with the arms is permitted
    • Arms straight
    • Elbows facing outward
    • Hook-grip utilized
    • Shoulders slightly higher than the heights of the knees
    • Back flat or extended
    • Eyes focuses straight ahead
Progressions – Snatch (continued…)

- Power Snatch + Overhead Squat
  - Adding the OHS will expose possible limitations in the athletes mobility
- Snatch
  - Athlete, in one motion, and without hesitation, lift the barbell from the floor into the overhead position and squat
  - Lift off the floor with control
  - Immediately begin acceleration the bar to its maximum velocity, in the power position
  - Athletes tend to perform lift from the hang due to flexibility
Progressions – Clean

• Power Position

• Power Position Hop & Land (Jump Shrug)

• Receiving Position
  • Proper rack position:
    • Elbows High
    • Feet in wide stance in preparation for the squat
    • Slight bend at the knees
    • Hold until fatigue = teaches body awareness

• Power Clean
  • Elbows as high as possible at the same time the feet land
  • Athlete receives barbell in quarter-squat position
Progressions – Clean (continued…)

• Power Clean (Mid-Hang)
• Power Clean (Low-Hang)
• Power Clean (Floor)
• Power Clean + Front Squat
• Clean

*Movements are taught in same progression as Snatch
Progressions – Jerk

• Jerk = Power, Push, Split, or Squat
• Dip, Drive, and a re-dip or “catch”

• Foot Stance – Determining
  • Push Method; athlete is pushed forward from behind, dominate leg braces
  • Drop Method; athlete leans on coaches extended arm & lets go

• Foot Placement & Recovery
  • Front shin vertical, back leg bent with heel off the ground, torso vertical
  • Step back with front leg, step forward with rear leg (2 step process)

• Foot Splitting
  • Both legs = 50% weight
• Footwork:
  • Split with Dip
  • Spit without Dip
  • Split with OH with Dip
  • Split with OH without Dip
  • Split Jerk with PVC, Barbell
Complex Training

- **Snatch**
  - Snatch RDL
  - Jump Shrug
  - High & Wide
  - Muscle Snatch
  - Power BTN Jerk Drops @ 2,4,6’ + Overhead Squat
  - Power Snatch + Overhead Squat
- **Clean**
  - RDL
  - Jump Shrug
  - High & Wide
  - Muscle Clean
  - Front Rack Drops @ 2,4,6’ + Front Squat
  - Power Clean + Front Squat
Example Program (with Oly Lifting)

- Warm-up; goal is to achieve current mobility level
- Technique building exercises – the Olympic lifts (footwork, empty barbell, etc.)
- Strength and power exercises – the Core lifts; squats, pulls, presses
- Auxiliary and Accessory exercises
- Flexibility and cool-down

REPITIONS AND SETS
- Olympic lifts = 3-5x3’s, 2’s, or Singles
- Strength = 3x5