Weight Training for Speed & Power

Teaching Progressions & Periodization
Categories of Weightlifting

- Olympic Lifts
- Static Lifts
- Ballistic Lifts
- Bodybuilding Lifts
The Olympic Lifts

• Exercises
  – The Competitive Lifts (Snatch, Clean and Jerk)
  – Derivatives of These (Pulls, Cleans and Snatches at Various Depths)

• Purposes
  – Complex Strength and Flexibility Development
  – Coordination Development and Harmonization
  – Endocrine Stimulation via Intensity & Lactate Production

• Negative Effects
  – None when Properly Scheduled
Examples of Olympic Lifts
The Static Lifts

• Exercises
  – Lifts Emphasizing Major Muscle Groups, Gross Movements, Large ROM, Low Speeds
  – Squats and Presses

• Purposes
  – Absolute and Postural Strength Development
  – Body Balancing
  – Endocrine Stimulation via Time Under Tension and Fiber Quantity

• Negative Effects
  – Short Term Mobility & Coordination Losses
  – Possible Rare Hypertrophy Issues
Examples of Static Lifts
The Ballistic Lifts

• Exercises
  – Lifts Emphasizing Major Muscle Groups, Gross Movements, High Speeds and Eccentric Components, Typically Small ROM
  – Weighted Jumps and Speed Presses

• Purposes
  – Absolute Strength Enhancement
  – Elastic Strength Development
  – Slight Endocrine Stimulation via Lactate Production

• Negative Effects
  – Risks Associated with High Impacts and Spinal Loading under Impact
Examples of the Ballistic Lifts
The Bodybuilding Lifts

- **Exercises**
  - Lifts Emphasizing Smaller Muscle Groups, at times more Precise Movements
  - Done in Circuit or Stage Fashion with Short Rests

- **Purposes**
  - Glycogen and Endocrine Stimulation
  - Stimulation of Recovery Processes
  - Specific Strength Development

- **Negative Effects**
  - None when Properly Scheduled
  - Possible Rare Hypertrophy Issues
Examples of the Bodybuilding Lifts
Teaching the Olympic Lifts

- Key Components and Performance Training Adjustments
  - Extending the Hips
  - Resetting in the Standing Position
  - Higher Rack Positions

- Teaching Components
  - Teaching the Setup
  - Teaching the Deadlift
  - Teaching the “Tap”
  - Teaching the Pulls
  - Polishing the Pull
  - Teaching the Racks
Teaching the Setup

- Foot Alignment
- Presetting the Back
- Lowering
- Shoulder Positions
- Grip and Wrist Position
- Grip Width
Teaching the Setup
Teaching the Deadlift

- Starting and Ending Height
- The Head and Back
- Shoulder Positions
- Hip Positions
- Pausing at the Top
Teaching the Deadlift
Teaching the Tap

• The Deadlift and Pause
• The Shift and Tap
• Maintaining Shoulder Positions
• Common Errors
Teaching the Tap
Teaching the Pull

- The Deadlift and Tap
- The Pull
- Delaying the Pull
- Initiating in the Shoulders
- Finishing Positions
- Return and Reset
Teaching the Pull
Polishing the Pull

- Eliminating the Pause
- Teaching Bar Acceleration Patterns
- Tap to Brush
- Addressing Clean – Snatch Differences
Polishing the Pull
Teaching the Racks

- Preliminary Experience
  - The Front Squat
  - The Snatch Squat

- Arm Positions

- Head Position

- Bar Position

- Amortization
  - Isometric Preparation
  - Eccentric and Concentric Activity
Preliminary Lifts and Rack Positions
Teaching the Clean Rack

• Key Points
  – Arm Positions
  – Head Position
  – Bar Position
  – Amortization
• Teaching Progressions
  – Spotted Hand Racks
  – Spotted Bar Racks
  – Spotted Cleans
Teaching the Clean Rack
Teaching the Snatch Rack

• Key Points
  – Arm Positions
  – Head Position
  – Bar Position
  – Amortization

• Teaching Progressions
  – Spotted Hand Racks
  – Spotted Bar Racks
  – Spotted Snatches
Teaching the Snatch Rack
Teaching Multiple Lifting Levels

- Lifting from the Floor
- Lifting From the Knee
- Lifting From the Thigh
Multiple Lifting Levels
Teaching the Squat

• Creating a Target
• Teaching the Setup
  – Unracking the Bar
  – Padding
  – The Bar Position
  – The Stance
  – Presetting the Back
• Initiating the Squat
  – Hip Flexion
  – Abduction of the Femurs
• Lowering and Deceleration
• The Ascent
  – Hip Extension
  – Delayed Adduction of the Femur
Teaching the Squat
Teaching the Bench Press

• Teaching the Setup
  – Locating on the Bench
  – Balancing the Bar
  – Unracking the Bar
  – The Grip and Hand Positions

• The Descent
  – Arm Flexion
  – Target

• The Ascent
  – The Vertical Component
  – The Horizontal Component
  – Relationship to Bench Position
Teaching the Bench Press
Teaching Split Position Lifts

• Teaching the Stance
  – Foot Spacing
  – Weight Location

• The Descent
  – Weight Distribution
  – Location of the Body’s Center of Mass
  – The Front Knee/Shin

• The Ascent
Teaching Split Position Lifts
General Concepts of Weight Training Periodization

- Progress Patiently and Eliminate Preconceived Notions
- Olympics Always
- Progress from Simple to Complex
- Start with Few Exercises, then Diversify
- Progress from Double to Single Leg/Split Work
- Keep Power Levels Up Throughout the Workout
- The Value of Large ROM
- Understanding Fatigue, Power, and ROM
- Temper High Intensity Work with Low Intensity Work
- Don’t Be Enslaved by Percentages
- Value Work Done Prior to the Weight Room
Strength Training Progressions and Hierarchy

• The Hierarchy
  1. General Strength
  2. Power
  3. Absolute Strength
  4. Elastic Strength

• Key Progression Concepts
  – Understand General Strength Prerequisites
  – Power Before Absolute Strength
    • Rate Coding Development
    • Limiting Absolute Strength Development Time
  – Prerequisites for Advanced Elastic Strength Work
Session Construction

• Neuromuscular Theme
  1. Olympic Lifts (5-8 sets) typically One Primary Exercise
  2. Static or Ballistic Lifts (Lower or Whole Body, approx. 30 reps total, 1 or 2 Exercises only)
  3. Static or Ballistic Lifts (Lower or Whole Body, approx. 30 reps total, 1 or 2 Exercises only)

• Bodybuilding Theme
  1. Bodybuilding Lifts (20-24 sets)

• Transition Theme
  1. Olympic Lifts (5-8 sets) typically One Primary Exercise
  2. Bodybuilding Lifts (20-24 sets)
Compatible Training

Neuromuscular Theme
- Done on days with
  - Acceleration, Absolute Speed, or Speed Endurance Work
  - Moderate to Intense Multiple Jumping and Throwing
  - Intense Technical Work

Bodybuilding Theme
- Done on days with
  - General Strength or Medicine Ball Work
  - Tempo Running
  - Low Intensity Technical Work

Transition Theme
- Done on Speed/Power days in Special Situations
Olympic Lift Periodization

Session Parameters
- 5-8 sets of 1-5 repetitions
- Intensities 50 - 100%
- Densities approximately 50%

Use to Train Power and Endocrine Fitness
- Low Weight – High Repetitions
- Endocrine Fitness via Moderate Lactate
- The Power of 3’s

Use to Train RFD
- High Weight - Low Repetitions
- Periodic Use and Power Review
Static Lift Periodization

Session Parameters

• 4-6 sets of 4-8 repetitions
• Intensities 30-90%
• Densities approximately 30-50% at highest usage

Use to Develop Absolute Strength

• Patient Weight Increases in the Goal
• Reduce Repetitions to Facilitate Progress
• Provide Endocrine Support at High Intensity Training Times
• Diversify at Peak Training Times

Delay Heavy Static Work Until Power is Trained

Time Spent Determined by Athlete’s Training Age
Ballistic Lift Periodization

Session Parameters
- 4-6 sets of 5-10 repetitions
- Intensities 10-30% of Athlete’s Bodyweight
- Densities approximately 10-30% at highest usage

Use Cautiously

Use to Enhance and Maintain Strength
- Tension Levels
- Time Under Tension Levels
Bodybuild Lift Periodization

Session Parameters

- 20-24 sets of 10-12 repetitions
- Intensities 60-75% (“Feel” last Repetition)
- Densities approximately 30-50% at highest usage

Use Frequently Early to Set Endocrine Levels

Use to Slowly Transition from Statics

Use as Needed to Stimulate Recovery
General Preparation

• Olympics
  – Train Power using 4-5 reps @50-70%
  – Train Endocrine Fitness – The Power of 3’s
  – Simple Movements and Few Exercises

• Statics
  – Start Patiently with 6-8 reps @40-60%
  – Primarily Double Leg/Arm Work
  – Simple Movements and Few Exercises

• Ballistics
  – None

• Bodybuilding
  – Use 2-3x per week to Set Endocrine Levels
Specific Preparation

- **Olympics**
  - Introduce RFD using 3-4 reps @70-90 %
  - Review Power using General Prep Protocol
  - Employ More Complex Movements

- **Statics**
  - Double Leg/Arm Work Intensifies to 4-6 reps @70-90 %
  - Pyramids Possible with Upper Body Work
  - Introduce Single Leg Work using General Prep Protocol
  - Diversify Exercises

- **Ballistics**
  - None

- **Bodybuilding**
  - Review Periodically
Precompetition

• Olympics
  – Train RFD using 1-2 reps @90-100 %
  – Review Power Frequently using General Prep Protocol

• Statics
  – Eliminate Intense Static Work

• Ballistics
  – Employ 1-2 x per week to Enhance and Maintain Strength

• Bodybuilding
  – Increase Slightly to ease Transition away from Statics
  – Transition Theme Sessions a Possibility Here
Peaking

- Olympics
  - Mix RFD and Power Protocols
  - Slight Reduction in Volume / Density
- Statics
  - Eliminated Completely
- Ballistics
  - Greatly reduced, used in Comp Schedule Breaks
- Bodybuilding
  - Use as Needed to Battle Sluggishness