Tripe Jump

2019 Athletic.net SuperClinic
Jeremy Fischer

TRIPLE JUMP

- Components
- Strength Training
- Training Design
- Alternative Issues

Triple Jump Components

- Approach
- Take-Off
- 1st phase/ Hop
- 2nd phase/ Step
- 3rd phase/ Jump
- Landing Mechanics

Approach

- Variables are similar to Long Jump approach
- Slower Hv are seen in TJ approach
- Runway Maintenance is similar to LJ, variance seen in set-up
- Length of approach is a critical factor

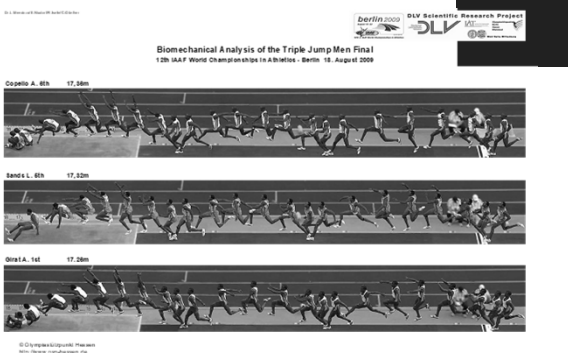
Take-Off

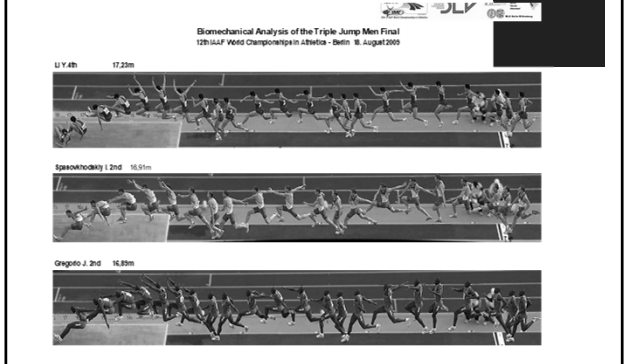
- No pronounced set-up or penultimate
- Minimize lowering of hips, happens at the board
- Minimize loss of Hv , in relation to single vs double arm off the board
- Maintain Postural Integrity
- Reflects Sprinting in Braking, Support, Propulsion relationship
- Large Horizontal Hip Displacement

Take-Off (cont)

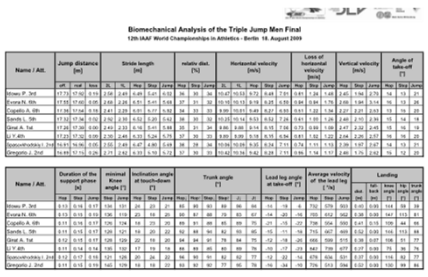
- LLR vs RRL or Strong, Strong, Weak vs Weak, Weak, Strong
- Arm Swings- Alt Arm, Double Arm, Arm-and-half
- Jump Ratios 40-20-40; 35-30-35, 40-30-30, 34-27-39
  - Saneyev last hop dominated WR 17.44
  - Oliveira first jump dominated WR 17.89, and subsequent Banks, Edwards

  Jump dominated works best because less loss of Hv at landing of Hop/1st Phase





Data Analysis



Landing Mechanics

- Hang Technique employed for landing
- Sweeping Actions of Arms on backside of parabola of Jump/3rd phase
- Extension with near simultaneous preparation of landing in sand
- Landing less important in TJ due to decreased Hv and Vv

Strength

- Weight Room – Limit Size of Muscle Growth
- Power
- Sprint Strength
- Core Strength
- Jump Strength
  - Muscle Stiffness
    - Spring Effect
  - Elastic Energy Component
    - Concentric vs Eccentric vs Isometric Strength

Strength (cont)

- General vs Specific Strength
- Correlation of Strength Exercise
- Absolute Strength
- Strength Endurance
- Strength should compliment track work

Training Design

- Biomotor Abilities

BIOMOTOR ABILITIES

- Flexibility
- Coordination
- Endurance
- Strength
- Speed
- Other

Flexibility

- R.O.M.
- Lack of Flexibility will prevent from proper muscle firing sequence
- Static
- Dynamic

Coordination

- Technique
- Bilateral Symmetry, Ipsilateral Symmetry
- Timing of Upper and Lower body
- Postural Integrity Pelvis-Spine-Hip
- Decrease in activity in younger athletes

Endurance

- Strength Endurance
- Speed Endurance
- Jump Endurance
- The benefits of aerobic work on the anaerobic system (Elliott, Wagner, and Chiu, 2007)
  - But how do we get the benefits?
  - (i) an increased aerobic response to the excess post-exercise V˙O2; (ii) an improved lactate removal; and (iii) an enhanced PCr regeneration
  - Improved body composition

Strength

- Weight Room – Limit Size of Muscle Growth
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Speed

- Maximizing the braking, support, propulsion
- F=ma
- Acceleration vs Maximum Velocity
- How do we obtain a closer Mv value on the run-way
- Technique needed for sprinting

Other Variables

- Take time to build the structure of the jumper
- Individualization of Training
- Men vs Women
- FMS/Body Analysis/ Body Assessment/Anthropometric

Other Variables (cont)

- Continuous Assessment of Athletes
  - Blood Work
  - Salivary Testing
  - Conversation
- Sleep Habits- sleep is the number one recovery method for the human body
- Nutrition-
  - Timing of nutrients, i.e. protein, CHO, H20
  - Strength/Weight Ratio

TJ video

Thank You

www.maximumvelocityathletics.com
jhfischer76@gmail.com