Hurdling 201

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My Background

- Bridgewater State
- University of Houston
- Wheaton College
- Brown University
- Harvard University
Training & Philosophy

- Vince Anderson
- Fletcher Brooks
- Leroy Burrell
- Ed Delgado
- Steve Dudley
- Mike Ekstrand
- Ron Grigg
- Reuben Jones
- Todd Lane
- Jason Saretsky

- Boo Schexnayder
- Dennis Shaver
- Paul Souza
- Mike Takaha
- Tom Tellez
- Latif Thomas
- Kebba Tolbert
- Derek Yush
- All The Athletes I Have Worked With
Identifying Hurdlers

• Coachable Athletes
• Good Leg Speed
• Tunnel Vision
• Aggressive out of the Blocks
• Coordination
• Flexibility
The Start

Blocks or Blocks?
Prerequisites to Block Work

- These drills need to be mastered before having athletes come out of blocks.
  * Wall Drill
  * Crouch Start
  * Bow Touch Go
  * 3pt Start
  * Push Up Start
  * 4pt Start
  * Stick Drills Without Blocks
  * Explosive Medicine Ball Throws

- Using blocks is a reward, not a gift.
Retrain the Brain

• The athlete may feel slow in these drills, but they are putting their body into the right position to continue to drive/push/build speed.

• They may feel slow, but they are moving faster through space.

• The greatest teacher of all time once said, “You must unlearn everything that you have learned.”
Acceleration Drills

• Acceleration Drills With Build Ups
  • Straight leg bound
• Acceleration Drills With Bullet Belt
  • Walk, March, and Run & Release
• Light Sled Pulls
• Various Starts w/ Weighted Vest
• Short Hills
• Stick Drills (next slide)
Stick Drill
### Acceleration to the First Hurdle

<table>
<thead>
<tr>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>• .60m</td>
<td>• .60m</td>
</tr>
<tr>
<td>• 1.70m</td>
<td>• 1.70m</td>
</tr>
<tr>
<td>• 3.05m</td>
<td>• 3.05m</td>
</tr>
<tr>
<td>• 4.55m</td>
<td>• 4.55m</td>
</tr>
<tr>
<td>• 5.95m</td>
<td>• 6.20m</td>
</tr>
<tr>
<td>• 7.60m</td>
<td>• 8.00m</td>
</tr>
<tr>
<td>• 9.35m</td>
<td>• 9.90m</td>
</tr>
<tr>
<td>• 11.05m</td>
<td>• 11.70m</td>
</tr>
<tr>
<td>• First Hurdle</td>
<td>• First Hurdle</td>
</tr>
</tbody>
</table>
Take Off Mechanics

• “Lead with the Knee”
  – Don’t lead with the foot.
• “Watch to Wallet”
  – Lead arm thumb turned down and to the forehead or above for men.
  – Lead arm thumb turned down and to the mouth or above for women.
• “Stay Square”
• Before all of this...they need to cut and push into the hurdle.
“Cut Step”

• What is the cut step?
• Cut Step Progression
  – Fix Hurdle Penetration Drill
  – Teach In Place Cut Step Drill
  – Couple Cut Step Drills
Step 1- Fix Hurdle Penetration Drill

- Typically the drill looks long and slow
- Teach the athletes to:
  - Lead with the knee
  - Stay square
  - Push into the hurdle
- We know what happens when athletes lead with the foot (next slide)
Long into the hurdle...
Equals long off of the hurdle
Who is the greatest hurdles coach of all time?

• Quite possibly...Sir Isaac Newton
• Third Law of Motion – “For every action there is an equal and opposite re-action.”
“Cut Step”
Step 2

• Teach the athlete what it means to push into the hurdle.
In Place Cut Step Drill

- Push the knee up utilizing force application into the ground
- Practice with both legs
“Cut Step”
Step 3

Couple Drills (static)
“Kill 2 birds with 1 stone.”
Combine In Place and Penetration Drills
Cut then...
Push equals...
Run off the hurdles!!!
“Cut Step”
Step 4

Couple Drills (active)
“Kill 2-3 Birds with 1 Stone”
Combine Walk In Cut Step with Penetration Drill
Cut & Push All The Way Down The Track
Flight Mechanics
Flight Mechanics

- “Stay tight”
- “Hurdle through the window”
- Knee should be bent, not straight.
- “Chest over thigh”
  - Acute angle
- “Toe down...go down”
  - Evert the toe to ensure clearance of the hurdle and put foot into better position to run off the hurdle.
Coming Off the Hurdle

• “Active lead leg”
  – As soon as the front foot crossed the hurdle it should move toward the ground.
  – The back arm waits at the hip and races the lead leg through the hurdle.
• “Sweep the arm back”
  – The trail leg will be tight to the body moving into the arm pit.
  – The arm needs to sweep back accordingly to make room for the trail leg.
  – Do not swing wide!!!
• “Push your shoulders up”
  – Don’t stand up too early.
  – Pushing the hips & shoulders up will make it easier to shuffle.
## Take Off & Landing Distances

<table>
<thead>
<tr>
<th>Men’s Height</th>
<th>Take Off</th>
<th>Landing</th>
<th>Women’s Height</th>
<th>Take Off</th>
<th>Landing</th>
</tr>
</thead>
<tbody>
<tr>
<td>5’3”</td>
<td>7’5”-7’9”</td>
<td>2’9”-3’3”</td>
<td>5’3”</td>
<td>6’5”-6’9”</td>
<td>2’9”-3’3”</td>
</tr>
<tr>
<td>5’5”</td>
<td>7’4”-7’8”</td>
<td>3’0”-3’3”</td>
<td>5’5”</td>
<td>6’4”-6’8”</td>
<td>3’0”-3’6”</td>
</tr>
<tr>
<td>5’7”</td>
<td>7’3”-7’7”</td>
<td>3’3”-3’9”</td>
<td>5’7”</td>
<td>6’3”-6’7”</td>
<td>3’3”-3’9”</td>
</tr>
<tr>
<td>5’9”</td>
<td>7’2”-7’6”</td>
<td>3’6”-4’3”</td>
<td>5’9”</td>
<td>6’2”-6’6”</td>
<td>3’6”-4’3”</td>
</tr>
<tr>
<td>5’11”</td>
<td>7’1”-7’5”</td>
<td>3’9”-4’9”</td>
<td>5’11”</td>
<td>6’0”-6’5”</td>
<td>3’9”-4’5”</td>
</tr>
<tr>
<td>6’1”</td>
<td>7’0”-7’4”</td>
<td>4’0”-4’10”</td>
<td>6’1”</td>
<td>5’10”-6’3”</td>
<td>4’0”-4’6”</td>
</tr>
<tr>
<td>6’3”</td>
<td>6’11”-7’3”</td>
<td>4’3”-5’0”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6’5”</td>
<td>6’10”-7’2”</td>
<td>4’6”-5’3”</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rhythm

• Hear the rhythm of the take off and landing.
• Lead leg and trail leg take off close together and land close together in sound.
Get-Away Stride

- KEEP RUNNING!!!
- No Bounding
- After the first hurdle the athlete’s eyes should be up looking at the next hurdle.
- Push the shoulders up to begin shuffling.
Shuffling

- What’s the difference between sprint and shuffle mechanics.
- Shuffle Drills
  - 5 Step Hurdling
  - Small Wickets
Wicket Drill - Basic
Basic Wicket

• Random run in with 4-8 steps.
• 9 wickets with the following spacing:
  9 x 1.30m
  9 x 1.35m
  9 x 1.40m
Wicket Drill
# Hurdle Facts

<table>
<thead>
<tr>
<th></th>
<th>Height of Hurdle</th>
<th>Distance from Start to H1</th>
<th>Distance Between Hurdles</th>
<th>Last Hurdle to Finish Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>39”/42”</td>
<td>13.72m</td>
<td>9.14m</td>
<td>14.02m</td>
</tr>
<tr>
<td>Women</td>
<td>33”</td>
<td>13m</td>
<td>8.5m</td>
<td>10.5m</td>
</tr>
</tbody>
</table>
Discount Hurdle Philosophy

• Train with hurdles closer and lower than normal to attain desired rhythms.
# Between the Hurdles

## Feel the Rhythm

<table>
<thead>
<tr>
<th>Goal Time</th>
<th>1st Hurdle</th>
<th>Rhythm Between</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>2.6 seconds</td>
<td>1.2 seconds</td>
</tr>
<tr>
<td>14</td>
<td>2.5 seconds</td>
<td>1.1 seconds</td>
</tr>
<tr>
<td>13</td>
<td>2.4 seconds</td>
<td>1.0 seconds</td>
</tr>
</tbody>
</table>
Hurdle Warm Up

1. 400m Continuous Motion Skips
2. 400m of forward and backward jogging
3. 30m Pivot Squats
4. 30m Forward 1-Legged Toe Touches
5. 30m Backward 1-Legged Toe Touches
6. 60m Straight Leg Bounds
7. 60m Marching Runs
8. Iron Cross
9. Scorpions
10. Hurdle Seat Exchange
11. Hurdle Seat Rollover

12. **Wall Drills**
   - Penetration Drill
   - Trail Leg Drill
   - Train Leg Drill with Slant
13. 5 Step Hurdle Tops (bent leg)
14. Alt. Leg Hurdle Tops (bent leg)
15. 3m 1 Step Bent Leg Ground Reaction (both legs)
16. 5m - 3 Step shuffle Hurdles (both legs)
17. 10m - 4 Step Drill (400m Hurdlers Only)
18. Stick Drill to H1 (Accel. Ladder)
19. Stick Drill to H2 (take off marks)
20. Stick Drill to H3 (take off marks)
Hurdling Drills without Hurdles

• Walk it
• Stride it
• Staircase it
  – Use a staircase to reinforce the various sections of hurdling.
Hurdle Drills with Hurdles

• Over the Top Drills:
  • 5 step
  • 1 step
• No Lead Leg Drill Over the Top
Hurdle Acceleration Workouts

• Hurdles 1, 2, 3
• Spice things up a bit!!!
  – Cardi Drill
    • Use technique from the one step drill
    • Hurdle spacing
    • Full speed out of blocks
    • Make sure you follow the proper progression before trying this workout.
Introduction to Speed Endurance using a Hurdle Workout

• Spice things up even more!!!
  – 3 step with cheat the spacing (see graph)
  – 5 step with extra room (see graph)
  – Hurdle with various spacing between the hurdles
    • 3 step, 5 steps, 5 step, 5 step
    • 3 step, 5 step, 3 step, 5 step
    • 3 step, 3 step, 5 step, 5 step
    • 3 step, 3 step, 3 step, 5 step
    • 3 step, 3 step, 3 step, 5 step
Various Steps and Distances

<table>
<thead>
<tr>
<th>Rhythm</th>
<th>Boys</th>
<th>Girls</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 steps</td>
<td>8.3-8.5m</td>
<td>7.80-8.0m</td>
<td>8.5-8.8m</td>
<td>8.0-8.3m</td>
</tr>
<tr>
<td>5 steps</td>
<td>12.5</td>
<td>11m</td>
<td>13m</td>
<td>11.5m</td>
</tr>
</tbody>
</table>
Training Within A Micro Cycle

- Micro Cycle with a track meet (late season)
  - Monday – General (still recovering from Sat.)
  - Tuesday – Speed Endurance, Special Endurance I or II w/ hurdles
  - Wednesday – OFF/Pool
  - Thursday- General (getting moving again)
  - Friday – Pre Meet Ritual w/ Hurdle Acceleration
  - Saturday - Track & Field Meet
  - Sunday – Rest or Restoration
Favorite Speed Endurance Workout for Hurdler Up To 12 Hurdles

• Keep in mind:
• Hurdles are cheated
• Hurdles are lowered
• Some even lower than others
• Can’t fit 12 hurdles indoors (really?)
# Up and Backs

<table>
<thead>
<tr>
<th></th>
<th>To Hurdle 1</th>
<th>Hurdle 2</th>
<th>Hurdle 3</th>
<th>Hurdle 4</th>
<th>Hurdle 5</th>
<th>Hurdle 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls Up</td>
<td>33” Height</td>
<td>33” Height</td>
<td>33” Height</td>
<td>33” Height</td>
<td>33” Height</td>
<td>30” Height</td>
</tr>
<tr>
<td></td>
<td>11.5-12.5m</td>
<td>8.3m</td>
<td>8.3m</td>
<td>8.3m</td>
<td>8.3m</td>
<td>8.3m</td>
</tr>
<tr>
<td>Girls Back</td>
<td>30” Height</td>
<td>30” Height</td>
<td>27” Height</td>
<td>27” Height</td>
<td>24” Height</td>
<td>24” Height</td>
</tr>
<tr>
<td></td>
<td>11.5m</td>
<td>8.0m</td>
<td>8.0m</td>
<td>7.8m</td>
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</tr>
<tr>
<td>Boys Up</td>
<td>39” Height</td>
<td>39” Height</td>
<td>39” Height</td>
<td>39” Height</td>
<td>39” Height</td>
<td>39” Height</td>
</tr>
<tr>
<td></td>
<td>12.5-13.5m</td>
<td>8.5m</td>
<td>8.5m</td>
<td>8.5m</td>
<td>8.5m</td>
<td>8.5m</td>
</tr>
<tr>
<td>Boys Back</td>
<td>39” Height</td>
<td>39” Height</td>
<td>39” Height</td>
<td>36” Height</td>
<td>36” Height</td>
<td>36” Height</td>
</tr>
<tr>
<td></td>
<td>12.5m</td>
<td>8.3m</td>
<td>8.3m</td>
<td>8.0m</td>
<td>8.0m</td>
<td>8.0m</td>
</tr>
</tbody>
</table>
Training Micro Cycle

- What do you do if you have more than one track meet during a week?
Train Both Legs

• Athletes need to be symmetrical to decrease their chances of injury.
• Train both legs to lead.
• Athlete should be able to hurdle with opposite leg within 1 second with preferred lead leg.
Dipping at the Line

• Pet peeves

Charlie Paddock
Recap

• Just remember:
  – We are trying to build rockets, but it is not rocket science.
# Common Errors in Hurdling

<table>
<thead>
<tr>
<th>The Approach</th>
<th>Too high over hurdle</th>
<th>Over-striding to hurdle putting the athlete too close. Cut step?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take Off</td>
<td>No forward lean</td>
<td>Not attacking with the knee. Probably leading with their foot.</td>
</tr>
<tr>
<td>Clearance</td>
<td>Hitting the hurdle with the trail foot.</td>
<td>Foot is not inverted.</td>
</tr>
<tr>
<td>Landing</td>
<td>Off balance</td>
<td>Twisting over the hurdle or jerking trail arm back rather than sweeping.</td>
</tr>
</tbody>
</table>
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