Comprehensive Javelin Training
Runway Drills

- It is important to have a good rapport with the javelin as you come down the runway.
- Runway drills are repeated throughout the year so the athlete is comfortable coming down the runway with control of the javelin.
- Athletes need to master the acceleration pattern that works best for them. Runway drills help with developing this ability.
Approach Run

- Keep javelin parallel to ground
- Prevent tip from rising
- Build up into an even and controlled pace of run
Multiple Crossovers

- Pace should be even and controlled
- Do not add speed just for the sake of speed
- Hold the javelin steady
- Minimize superfluous movements
Penultimate Crossovers

- There should be a dynamic drive off the left leg going into each crossover.
- This drill constantly repeats the last three steps of the full approach.
- Can be done with overweight javelin.
Carioca

- Keep upper body steady while the lower body is doing a lot of work.

- Keep the footwork close to the ground without high knee drive.

- Can be done with overweight javelin
Approach run with Drawback

- Focus on smooth transition when drawing back javelin.
- Decide whether to draw back off of left foot or right foot.
- This slide demonstrates a drawback off the left foot.
Crossovers with Resistance Sled

• Attaching the sled to hip provides more functional resistance than a hose drag where the resistance goes through the throwing hand.

• We usually do resistance runway drills first before finishing with regular approaches.
Hurdle Skips into Javelin Throw

- A good teaching drill for those athletes who are flatfooted or slow lack a bouncy runway rhythm.
Seated Overhead (Forward) Throws

- Chris Hill (83.84m):
  - 2kg 12.50 m/s
  - 3kg 10.26 m/s
  - 4kg 9.36 m/s

- Brian Moore (72.95m)
  - 2kg 12.50 m/s
  - 3kg 11.60 m/s
  - 4kg 10.26 m/s
Standing Overhead (Forward) Throws

- Chris Hill (83.84m):
  - 2kg 14.27 m/s
  - 3kg 12.93 m/s
  - 4kg 11.15 m/s

- Brian Moore (72.95m)
  - 2kg 12.93 m/s
  - 3kg 12.04 m/s
  - 4kg 10.70 m/s
Medicine Ball Throw from Hips Raised Position

- Chris Hill (83.84m):
  - 2kg \(\text{m/s}\)
  - 3kg \(\text{m/s}\)

- Brian Moore (72.95m)
  - 2kg \(13.38 \text{ m/s}\)
  - 3kg \(12.50 \text{ m/s}\)
Medicine Ball Throw after Rolling Forward

- Chris Hill (83.84m):
  - 2kg m/s
  - 3kg m/s

- Brian Moore (72.95m)
  - 2kg 13.38 m/s
  - 3kg 11.60 m/s
Double Arm Stand-throw from Wind-up

- Brian Moore (72.95m):
  - 2kg  13.82 m/s
  - 3kg  13.16 m/s
  - 4kg  11.15 m/s

- Chris Hill (83.84m):
  - 2kg  13.82 m/s
  - 3kg  13.38 m/s
  - 4kg  11.60 m/s
Double Arm Overhead Throw (Forward) from 3-Steps

- Chris Hill (83.84m):
  - 2kg 15.16 m/s

- Brian Moore (72.95m)
  - 2kg 15.16 m/s
Stand-throw with 1000g ball

- Chris Hill (83.84m):
  - 1kg 20.51 m/s

- Brian Moore (72.95m)
  - 1kg 18.28 m/s
One-arm Backward Release
Thoughts on Medicine Ball Training

- 5:1 ratio of double arm throws to single arm throws

- Med ball volume inversely related to javelin throwing volume

- Manage the repetitions per set based upon the ability to maintain the quality of the throws

- Pay attention to the release angle and make sure it is similar to the release angle for an actual throw with the javelin (~30 degrees)
Men’s Release Speed & Distance for Overhead Forward Throw: Adapted from Finnish Performance Tables developed by Kari Ihalainen, National Javelin Coach of Korea

<table>
<thead>
<tr>
<th>Level</th>
<th>Distance/Speed w/4kg</th>
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<tbody>
<tr>
<td>50m</td>
<td>12.00m/9.7 m/s</td>
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<tr>
<td>55m</td>
<td>13.00m/10.1 m/s</td>
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<tr>
<td>60m</td>
<td>14.00m/10.9 m/s</td>
</tr>
<tr>
<td>65m</td>
<td>15.00m/11.2 m/s</td>
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<tr>
<td>70m</td>
<td>16.00m/11.4 m/s</td>
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<tr>
<td>75m</td>
<td>17.00m/11.9 m/s</td>
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<tr>
<td>80m</td>
<td>18.00m/12.3 m/s</td>
</tr>
<tr>
<td>85m</td>
<td>18.50m/12.5 m/s</td>
</tr>
<tr>
<td>90m</td>
<td>19.00m/12.7 m/s</td>
</tr>
<tr>
<td>95m</td>
<td>19.50m/12.9 m/s</td>
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Release Speed & Distance for Chris Hill & Brian Moore

- release speed for Chris Hill with the 4kg overhead forward throw was 11.15 m/s which projects out to roughly 65 meters.

- for Brian Moore with the 4kg overhead forward throw was 10.73 m/s. This projects out to roughly 59 meters.
Women’s Release Speed & Distance for Overhead Forward Throw: Adapted from Finnish Performance Tables developed by Kari Ihalainen, National Javelin Coach of Korea

<table>
<thead>
<tr>
<th>Level</th>
<th>Distance/Speed w/2kg</th>
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<tbody>
<tr>
<td>40m</td>
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<tr>
<td>55m</td>
<td>17.00m/11.9 m/s</td>
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<tr>
<td>60m</td>
<td>18.00m/12.3 m/s</td>
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<tr>
<td>65m</td>
<td>18.50m/12.5 m/s</td>
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<tr>
<td>70m</td>
<td>19.00m/12.7 m/s</td>
</tr>
<tr>
<td>75m</td>
<td>19.50m/12.9 m/s</td>
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</table>
Release Speed and Distance for Colleen Felix

• Release speed for Colleen Felix with the 2kg overhead forward throw was 9.36 m/s which projects out to less than 40m.
Men’s Release Speed & Distance for Stand-throw with 1kg Ball: Adapted from Finnish Performance Tables developed by Kari Ihalainen, National Javelin Coach of Korea

<table>
<thead>
<tr>
<th>Level</th>
<th>Distance/Speed w/2kg</th>
<th>Observed Speed w/1kg</th>
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<td>30.00m/ 15 m/s</td>
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</tr>
<tr>
<td>55m</td>
<td>32.00m/ 16 m/s</td>
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<tr>
<td>60m</td>
<td>36.00m/ 17 m/s</td>
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<tr>
<td>65m</td>
<td>40.00m/ 17.7 m/s</td>
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<tr>
<td>70m</td>
<td>44.00m/ 18.3 m/s</td>
<td>Brian Moore 18.28 m/s</td>
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<tr>
<td>75m</td>
<td>48.00m/ 19 m/s</td>
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</tr>
<tr>
<td>80m</td>
<td>52.00m/ 20 m/s</td>
<td>Chris Hill 20.51 m/s</td>
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<tr>
<td>85m</td>
<td>56.00m</td>
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</tr>
<tr>
<td>90m</td>
<td>60.00m</td>
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<tr>
<td>95m</td>
<td>64.00m</td>
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Flexibility Training: Skin-the-Cat
Flexibility Training: Bird’s Nest