

100m / 110m Hurdle Training

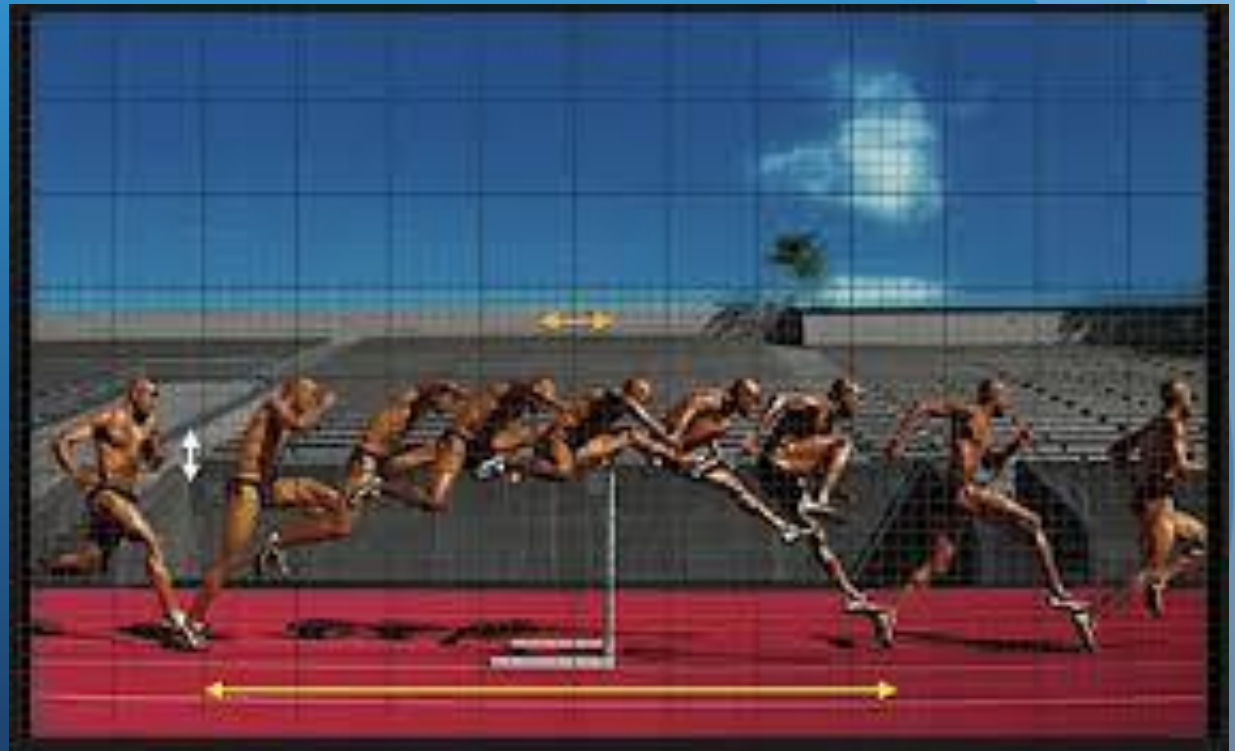
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Coach Newton's Laws of Track and Field

- Second Law
 - Force = mass x acceleration
- Third Law
 - When one body exerts a force on a second body, the second body simultaneously exerts a force equal in magnitude and opposite in direction on the first body - 1687

Factors in Hurdling

- Speed
 - Hurdles are a sprint
- Rhythm
- Technique



Speed

- Train like a sprinter
- Posture
- Shuffle at high speed
 - Low heel recovery

Rhythm

- Goal is 1.0 seconds or less -
touchdown to touchdown
- Discount hurdles
 - Move closer
 - Lower hurdles
- 3H - 3H - 5H - 5H - 3H - 3H

Technique

- Most important thing you can give as a coach
- Lead Leg
- Trail Leg
- Arms



Lead Leg

- Lead with the Hip and Thigh
- Lead foot should cross over the Knee
- Foot Dorsiflexed
- Stay Tall
 - Center of Mass
- Active Reacceleration off the hurdle



Trail Leg

- Pushing through the hurdle
- Foot Dorsiflexed
- Heel tight to the Butt
- Rotate from the Hip
- Knee is higher than the foot
- Bring through and point down the track
- Active reacceleration to the track

Arms

- Lead arm
 - Lead from shoulder / elbow
 - Keep close to 90 degree
- Trail arm
 - Equal or just behind the hip
- Active over the hurdle
 - Slow arms = slow trail leg

Air Time over the Hurdle

	Men	Women
Poor	0.38	0.33
Average	0.34	0.30
Good	0.30	0.27

The Mechanics of Sprinting & Hurdling
- Mann and Murphy (2015)

Stride Length over the Hurdle

	Men	Women
Poor	2.70m / 1.45m (4.15m)	2.25m / 1.15m (3.40m)
Average	2.40m / 1.30m (3.70m)	2.10m / 1.05m (3.15m)
Good	2.10m / 1.15m (3.25m)	1.95m / 0.95m (2.90m)

Before Hurdle / After Hurdle (Total)

The Mechanics of Sprinting & Hurdling
- Mann and Murphy (2015)

- Need to get back to the track as fast as possible
- Can't get faster in the air

Drills

- Wall Drill
- Marching - Skipping
- Trail Leg - Lead Leg
 - 3 or 5 step
- Over top
 - 3 or 5 step
- Repeat-Repeat-Repeat
 - With proper technique



Rhythmic Units (100H)

- Hurdle PR= 15.00s
- Time to H1= 2.7 s
- Time off H10= 1.4s
- Time H1-H10= 10.90s
- Avg RU for 9 hurdles= 1.21s (10.90s/9H)
- Avg Velocity for RU's= 7.02m/s (76.5m/10.90s)
- Velocity = Distance divided by Time
 - Set up Hurdle distance at 7.03m
 - increase by 10cm as mastered

Thank You

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