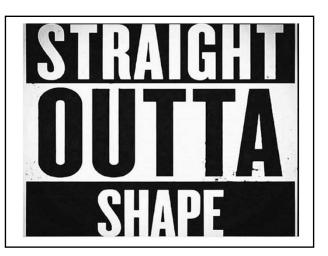
## Coaching the Straightaway Hurdles

**Tony Veney** 



## Basic Training Elements for the Hurdles

Rhythm work is the primary concern for the coach

# Basic Training Elements for the Hurdles

Short rhythm work including starts, core stabilizing, multijump and multi-throw training

## Basic Training Elements for the Hurdles

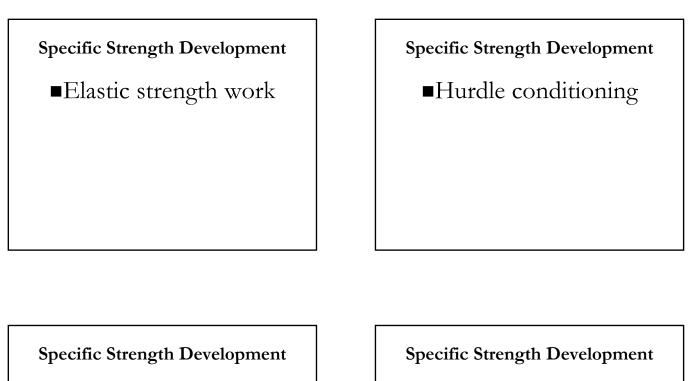
Rhythm endurance work including runs over 6-12 hurdles

# Basic Training Elements for the Hurdles

 Protecting the hurdler's rhythm will enhance their development (be careful with the multi-event hurdler)

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Explosive power

■Core development

Specific Strength Development

■Starting strength

#### What Do You Want to Look/Run Like?

- Start with a general hurdle model and then allow your hurdler to develop their own unique hurdle qualities:
  - Aires Merritt
  - ∎ "Bobo J"
  - Rodney Milburn
  - Male coached women's hurdlers
  - No "hurdle clones"

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### **Training Themes**

- ■Have a major and minor theme or goal each week
- ■Hammer the theme each week

#### **Training Themes**

Don't try to cram two themes in a week without accepting the consequences ("freak")

#### **Training Themes**

Easy weeks help the hurdler absorb technical competency

#### **Training Themes**

Sprint-hurdle days followed by tempo and some lactate

## What is She/He?

Decide whether your hurdler is a long or short specialist

#### What is She/He?

Spend your effort in the time frame required

## What is She/He?

- Do not mix hurdle rhythms.
- ■Unless you really have to.
- ■Example?????

## What is She/He?

Teach the four step rhythm for the long hurdles

## What is She/He?

Short hurdlers should stay away from 4-stepping

## What is She/He?

 Start, hurdle prep, take-off mechanics, clearance, touchdown, and hurdle getaway

## Hurdle Development

- The Start
- Hurdle Acceleration
- Hurdle Speed Development
- Speed Training Speed Endurance
- Short Rhythm Work
- Rhythm Endurance Work
- Technique of the Hurdle Stride
- Technique of the run Between the Hurdles

## **Basic Workout Elements**

- Work the hips
- Work the thighs
- Short jump training
- Gallop runs
- Squats, lunges, step ups
- Calf raises and leg curls
- Core work

## **Dynamic Strength**

- Hopping work on the grass and in the sand
- Power walks
- Power crawls
- Leg circles (bent and straight)
- Hurdle mobility
- Flexor and extensor work
- Medball work

#### **Event Modeling**

- Race acceleration covers hurdles 1-4
- Top end speed covers hurdles 4-7
- Rhythm endurance covers hurdles 7-10 (11-14)
- Train the hurdle shuffle
- Be careful running your hurdlers on the flat after a workout over the sticks
- Go back to the rhythm after running a flat race or relay leg at the meet

#### Lead Leg Mechanics

Be patient on the take-off - lack of patience kills the hurdle clearance and causes hurdle hits

#### Lead Leg Mechanics

 Don't be in a hurry to get to the next hurdle. Hurrying the T.O. leg to finish its ground contact lets the trail rush the hurdle before and often causes the trail leg to flip over the hurdle or hit the hurdle.

#### Lead Leg Mechanics

The T.O. foot should stay on the ground as long as possible to allow the T.O. leg split.

#### Lead Leg Mechanics

As soon as the lead foot (calf) clears the hurdle, it's time to work the ground – but this can only be accomplished with an aggressive take-off

## Lead Leg Mechanics

The high lead keeps the lower leg from casting too soon and making you float the hurdle

#### Lead Arm Mechanics

- Using a cross arm must be followed with an aggressive elbow cut back letting the hand chop along the shin of the trail leg
- The lead hand presses forward with the thumb turned down and swept back in a "freestyle" motion
- Don't hurdle with the lead arm, hurdle with the lead hand and elbow.

#### The Hurdles are a Sprint Event

- Don't put kids in the hurdles because they are too slow to sprint, or they flunked "Manager"!
- Hurdlers are like quarter milers half crazy and some are over-<u>qualified</u>
- Hurdlers need speed development, speed endurance, special endurance, rhythm work, rhythm endurance, and coordination training

#### Acceleration

- Does not end at the first hurdle, rather can continues for up to 3 to 5 hurdles (30 to 55 meters)
- This should not be surprising since acceleration in the flat 100 meters tops out around 30-50 meters

#### Stabilization of Max Hurdle Speed

- This is extremely high through hurdles 6, 7, 8, and even to 9
- Speed endurance, or rather rhythm endurance must be well developed in order to be successful
- But don't neglect the *speed*

#### Hurdle Acceleration

Attack the first three steps out of the blocks with the same feel you would have for the flat 100 meters (driving powerfully from the blocks with a big arm split and power knee punch)

#### Hurdle Acceleration

Steps 4-5-6 should get you to "sprint" upright ready to transition to the takeoff

#### Hurdle Acceleration

 Most 1<sup>st</sup> hurdle "hits" are caused by over pushing to the 1<sup>st</sup> barrier – Except for the women, who due to the lower barrier can attack a little more forward

#### Take-off Prep

- Complete the last two strides with an upright posture to prevent leaning too soon or settling the hips like a "bad" long jump take-off
- Be prepared to aggressively attack the hurdle running off the ground with the take-off foot directly under you COG at touch down. You can tell if your hurdler hits the T.O. poorly if the hurdler slows down (hips) at the T.O.
- The stride cadence into the hurdle must be quick yet forceful like a LJ take-off

#### The Cut Step

- The attack or cut step will describe the trail foot
- It will be the foot that will propel the hurdler into the barrier
- This is a better term than take-off step since "take-off" conjures an image of jumping up rather than sprinting through movement
- After the touch down the next steps are trail step – big step – cut step

#### The Take-off

- The take-off step is a quicker, lighter pushing down into the track keeping the center of mass over the foot preventing any braking
- This is a problem with many young hurdlers as they are afraid of the speed and put their foot out to make things less hectic (referred to as a "set up step")
- It feels less scary, but launches the hurdler up and over and delays all of the things they want to do when they get to the ground
- Don't rush or try to snap the lead leg down if you push off correctly, the path over the hurdle will be quite smooth

#### Hurdle distance vs Running Distance

- The hurdle distance between the barriers is 9.14 meters (for men) and 8.50 meters ( for women)
- But the hurdle stride is 3.30 meters for the men and 3.10 meters for the women, leaving a running distance of 5.84 and 5.40 meters respectively(1.94 and 1.80 avg. SL).
- The average sprint stride for a boy or girls is 2.40 and 2.20 meters respectively.

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## **Rhythmic Unit Running**

Don't be concerned about the next hurdle

## **Rhythmic Unit Running**

"Run away" from the current hurdle and the next one will get there.

## The hurdle Run-in

- Always practice the run off the last hurdle with a 5 step and dip pattern – on the 4<sup>th</sup> step push into the 5<sup>th</sup> step with palms thrown behind you facing upward
- With timing systems going to the fourth and fifth decimal to determine who moves on to the next race, the dip finish is crucial

## Hurdle Keys

- Use lower heights and closer run spacing
- Teach beginning hurdlers to use both legs
- Teach beginners that this is a sprint race
- Hurdle work is all you do for the day if the workout is challenging
- Hurdlers make great 1<sup>st</sup> and 3<sup>rd</sup> leg 4x1 legs

## Hurdle Drills

- Cut step
- Cut step into the wall
- Hurdle up/down
- Hurdle attack
- Trail circles
- Trail slides
- Trail slides to a box or table

## Hurdle Drills

- Trail slide to run off
- Depth Jump hurdling
- Running man #1 and #2
- Walk overs
- Lead lift to trail
- Trail leg rolls

### Drills to Improve Hurdle Abilities

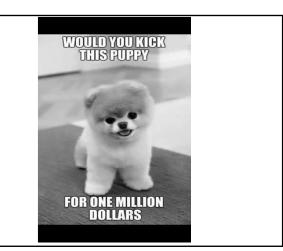
- Hurdles set 5 strides (10-12m apart) can increase hurdle velocity & frequency while decreasing ground support
- Cut 10cm off each hurdle out to 12 another increase in hurdle velocity & frequency
- Low and close runs (10% reduction in spacing and height)
- 12 hurdles set at 7.5/8.5 is within 92% of season goal
- Run 14.5 to 16.5 to the first hurdle to increase velocity to the first hurdle
- Drop the first hurdle to increase speed to the next (this can be done every 3 hurdles to boost velocity for a long endurance rhythm run)

### Drills to Improve Hurdle Abilities

- Run 5HH low and close (ex:36"-boys)
- Run 4HH @ 36" and 5 at 39"
- Run 3HH @ 36 and 4-5 @ 39"
- Run 2HH @ 36 ans 3-4-5 @ 39

#### 12 Hurdle Run

- Set the 1<sup>st</sup>, 5<sup>th</sup> & 9th hurdles at 30" for men and 20" for women.
- Hurdles 2-4, 6-8 and 10-12 at 36" for men and 27" for women
- Run over all 12 hurdles 2-4 reps with 12 minutes rest between the runs



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