

# ATHLETICS OMNIBUS - HURDLING

From the Athletics Omnibus of Richard Stander, South Africa

## 1. HIGH HURDLING (70M – 110M)

### 1.1. GENERAL INFORMATION

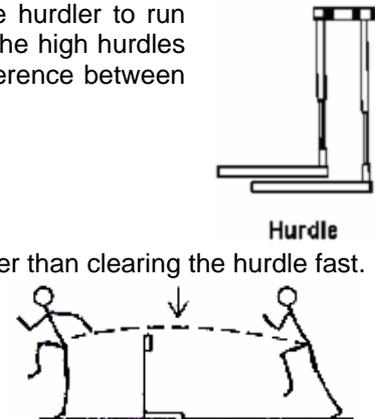
High hurdling is regarded as a sprinting event. It is required from the hurdler to run faultlessly over a set of equally spaced hurdles as fast as possible. If the high hurdles race is executed well, there should be no more than 1,5 - 2 sec. difference between the time of the flat sprint and the hurdle sprint.

Depending on the age and gender of the athlete:

- The distance of the race may vary between 70m to 110m
- The height of the hurdle may vary between 68cm and 106 cm
- The amount of hurdles will also vary between 8 and 10 hurdles

The primary emphasis in hurdling is on speed between the hurdles rather than clearing the hurdle fast.

Note: An athlete can only accelerate if the feet touch the ground. The time the athlete takes to cover the distance between the hurdles, are determined by how fast the athlete clears the hurdles. Therefore, add faultless technique to speed, and you have a good sprint hurdler.



Most hurdlers take 7-8 strides to the first hurdle and 3 strides between the hurdles.

The short sprint hurdle race consists of three parts:

- The acceleration phase to maximum speed which reach its peak around the third flight of hurdles.
- The maintenance of speed until the eight flights of hurdles.
- Slight deceleration of speed over the last two flights of hurdles because of the onset of fatigue.

### 1.2. THE HURDLER MUST AVOID:

- Prematurely straightening the lead leg.
- Picking up the training leg without completing the drive.
- Pointing the toes of the lead leg while the lead leg is flexing.
- Attacking the hurdle too closely or jumping over the hurdle
- Raising the flexed leading leg too high.
- 'Pulling' the take-off leg through too high.
- Flexing the leading leg on landing.
- Leaning back on landing.
- Incomplete driving action of the driving leg on making contact with the ground.



Approaching the hurdle

### 1.3. THE HURDLER MUST AIM TO:

- Carry the hip forward as the flexed leading leg is lifted.
- Keep the foot of the lead leg "cocked" while the leading leg is lifted.
- Pick up the take-off leg as a result of the drive rather than just 'pulling' it off the ground.
- Make the flight parabola low in order to shorten 'flight' time.
- Keep the leading leg extended as the thigh reaches the height of the hip.
- Move the back leg from behind to the front and not from down up.
- Keep the ankle firm on landing and make an active re-entry running.
- Keeps the trunk leaning forward slightly in order to 'run away' from the hurdle.
- Time the clearance so that the knee of the take-off leg is never in front of the hips when the athlete is directly over the hurdle.



Landing

### 1.4. FROM THE START TO THE FIRST HURDLE

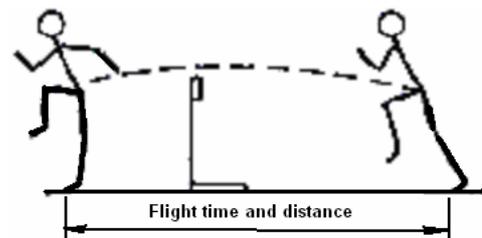
- Most high hurdle races are won or lost during this phase and must be practised regularly, especially prior to the race.
- The start of the hurdler is the same as for the sprinter.
- The distance from start to the first hurdle is normally covered in 7-8 strides.

- For the lead leg to pass first over the hurdle, the lead leg must be on the back block of the starting blocks for the 7-stride approach.
- The lead leg must be on the front block, for the 8-stride approach.
- Acceleration to the first hurdle can only be obtained by stride frequency and not stride length. If one stride less is used in the approach run, it can cause over-striding which can lead to a braking effect on the foot placement.
- The stride length before the first hurdle progressively lengthens until the second last stride before take-off.
- The hurdler reaches normal upright running action after 4-5 strides after the start. The sprinter after 15 - 20 strides.
- The last stride before take-off is shorter than the previous one.

### 1.5. THE TAKE-OFF

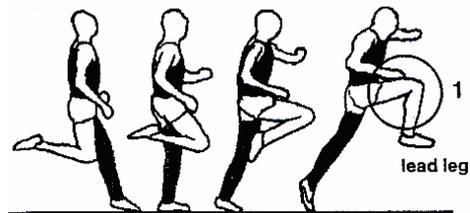
During the last stride before take-off, the athlete must drive from the toes of the trailing leg, and keep the hips as high as possible, but in front of the feet. This will reduce the flight time over the hurdle.

The faster the lead leg touches down after the hurdle, the sooner the athlete can start to run again.

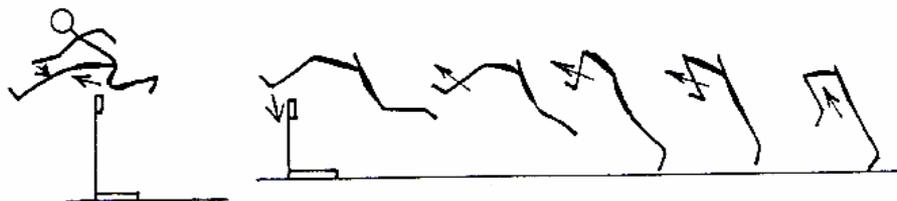


### 1.4 THE LEADING LEG

- When lifting the lead leg while driving into the hurdle, the athlete must concentrate on lifting the thigh-knee combination, not leg-foot combination. When concentrating on lifting the thigh-knee, the athlete will drive forward rather than upwards.
- The lead leg attack begins with a high knee action with the foot cocked (pointing upwards).
- The foot of the leading leg is cocked, to allow faster up and down movement of the leg. The cocked foot will keep the lead leg bend. A bend leg is shorter than a straight leg and therefore easier to bring down than a straight leg.
- The leading foot should not be allowed to get in front of the attacking knee too early (1). This will cause the hips to drop. It leads to a longer time in the air because the hips go up rather than forward.
- As the lead leg is lifted and extended towards the hurdle, the lead arm (opposite arm) is brought forward slightly flexed in front of the chest, and then allowed to extend of its own accord.



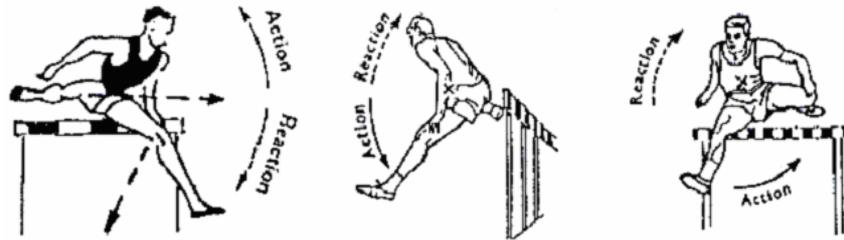
### 1.5 CLEARING THE HURDLE



- When the knee has reached maximum height in the drive into the hurdle, the lower leg is thrust towards the hurdle and immediately pulled down and backwards under the body.
- The trail leg starts driving over the hurdle. The foot of the trail leg must be flexed and point sideways to avoid it from hitting the hurdle.
- The higher the hurdle, the more the trunk of the athlete will bend forward to stop the hips from lifting too high.
- With the lower hurdles, the trunk will remain upright, provided that the athlete is tall enough. There is no need for the trunk to bend into the hurdle if the athlete can stand straddled across the hurdle without touching the hurdle between the legs.
- Body lean and forward rotation must start while the trailing leg of the hurdler is still in contact with the ground.
- The lead arm must not be thrust forward violently as this can twist the upper body and cause the athlete to lose balance.
- Keep the arm action and leg action synchronised. This will keep the shoulders square, assists balance and rhythm. It also counteracts the lateral rotation of the trunk.

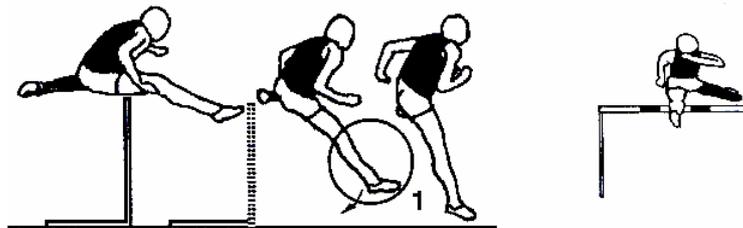
- The trail arm moves in a short  $\frac{1}{2}$  circle around the hip, allowing it to enter into the sprinting phase upon landing.

### 1.5 THE TRAILING LEG

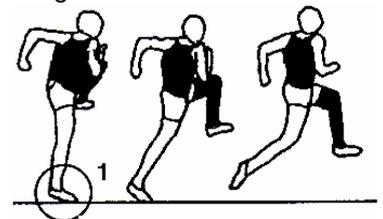


- The heel of the trail leg must remain as close to the buttocks as possible until it crosses the hurdle, at which time it is pulled by the high knee to the under-arm position.
- The trailing knee is pulled up rather than forward to assist the lead leg with a faster downward movement (1).
- The angle between the thigh and lower leg is about  $90^\circ$ .
- As the trail leg comes forward, the lead arm must be in a backward motion to keep the shoulders square throughout the flight and landing.
- The mass of the trail leg is more than the lead arm. To counteract the difference, the arm must swing wider than the leg towards the back. This wider action is terminated as soon as the foot touches down.

### 1.6 LANDING AND FOLLOW-UP STRIDE



- The lower leg of the lead leg is thrust towards the hurdle and immediately pulled down and backwards under the body. This action will keep the hips (centre of gravity) in front of the foot on touchdown.
- This down/backwards movement of the lead leg will assist the fast follow-up of the trail leg. If executed correctly, the hips will be slightly ahead of the leading foot on touchdown. The athlete must concentrate on running on the toes.
- To assist the downward movement of the leg, the trunk must be brought upright after clearing the hurdle, but avoid leaning back.
- The knee of the trailing leg must be pulled through high over the hurdle. The follow-up stride after touch down after the hurdle will be too short if the trailing knee is allowed to drop during the pull-through stage. For the lower hurdles, the trailing knee can be brought through lower.
- The landing should not be more than 3 of the athlete's own feet lengths on the other side of the hurdle.
- Land on the ball of the foot and keep the ankle firm on landing. This will assist with an active re-entry into running.
- Use both arms and trailing leg to make a strong, fast first stride.
- The body must be upright on landing.



### 1.7 RUNNING BETWEEN THE HURDLES

- The emphasis is now on fast stride frequency between the hurdles rather than over striding.
- The follow-up stride after touchdown is always the shortest, because of the hurdle clearance.
- The second stride must be the longest.
- The third and last stride is always slightly shorter than the previous stride, to assist with the hurdle attack, the forward lean of the upper body, and to assist with a low trajectory of the hips (parabolic curve) over the hurdle.

- Run on the toes.
- Run with the hips high.
- The pattern between the hurdles is a three-stride pattern (the feet touch the ground 4 times between hurdles); with the last stride merely longer and more accentuated in its action because of the presence of the hurdle.

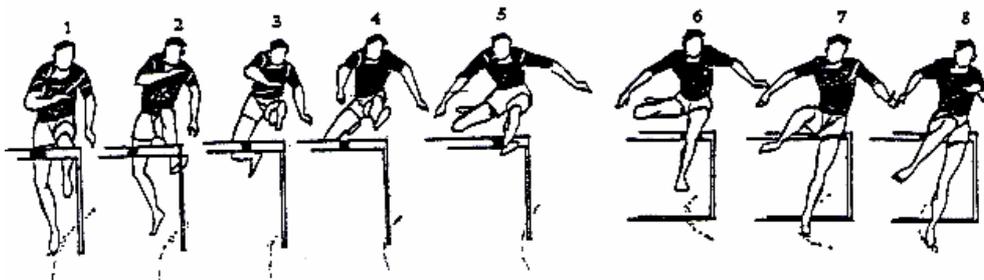
## 1.8 FINISHING SPRINT

Having cleared the last hurdle, attention is directed towards the remaining distance to the finish line. Athletes should count their strides and dip on the last stride.

## 2. LONG HURDLES (150M – 400M)

### 2.1. GENERAL INFORMATION

- 2.1.1. To be a good 400m hurdler you must also be a good 400m athlete. The 400m hurdle race is regarded as a 400m sprint. The difference in the time of a 400m flat race and 400m hurdles race should be 3-5 sec. depending on the level of fitness.
- 2.1.2. Depending on the age and gender of the athlete:
- The distance of the race may vary between 2000m to 400m
  - The height of the hurdle may vary between 68cm and 91.4cm
  - The amount of hurdles will also vary between 8 and 10 hurdles
- 2.1.3. The athlete must be able to hurdle with both legs in the long hurdle races. In the high hurdle races the athlete lead with only one leg.
- 2.1.4. The athlete must have a definite stride pattern, e.g. the junior men novice 400m hurdler will take:
- 23 strides to the first hurdle
  - 15 strides to the 5<sup>th</sup> hurdle
  - 17 strides to the 8<sup>th</sup> hurdle
  - 19 strides to the 10<sup>th</sup> hurdle
  - 22 strides to finish.
- 2.1.5. As the athlete become stronger, the strides between the hurdles will be less, e.g.
- 21 strides to first hurdle;
  - 13 strides to 6<sup>th</sup> hurdle,
  - 15 strides to 10<sup>th</sup> hurdle
  - 16 strides to finish.
- 2.1.6. It is recommended that the athlete pace himself/herself in such a way that he/she will lead with the left leg in the bend.
- 2.1.7. Leading with the left leg around the bend will help the athlete to run closer to the inside line. There is also less chance of disqualification. When leading around the bend with the right leg, the left leg tends to trail alongside the hurdle instead of over the hurdle.
- 2.1.8. The athlete must be able to judge the pace. External factors such as weather, track surface, lane draw and poor hurdle clearance will influence the stride pattern. The athlete must be able to adjust pace as needed, during the race.
- 2.1.9. When changing strides, change pace about half way between the two hurdles. This will lead to a more even pace the last 5 strides in approaching the next hurdle.
- 2.1.10. When approaching a hurdle in the bend, move away from the inside line and pass over the middle of the hurdle. This will allow the athlete to run the first few strides after the hurdle in a straight line before following the curve again.



## 2.2. THE START AND SPRINT APPROACH TO THE FIRST HURDLE

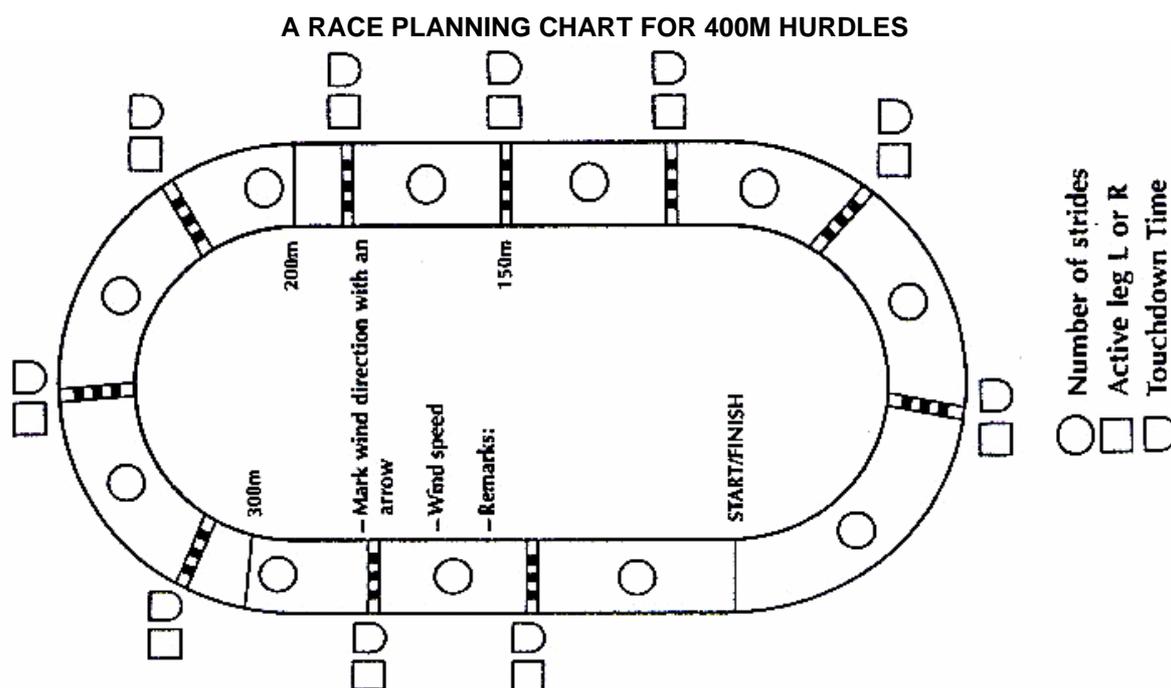
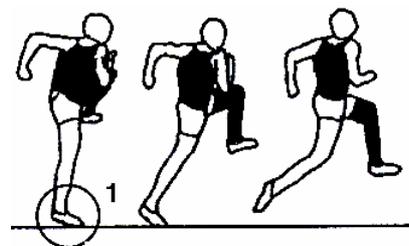
- The amount of strides for a novice long hurdler to the first hurdle in a 200m hurdle race will be 7-9 strides.
- For the 300m race it will be 24-27 strides due to the longer approach run of 50m.
- For the 400m race it will be 23-25 strides in the 45m approach run.
- The athlete leaves the blocks and must accelerate in the first 8-10 strides.
- The approach run is done the same as for the 400m flat race.
- Settle into a pace, which allow slight acceleration in the five strides before the hurdle.
- The adjustment of strides before the hurdle has an effect on the rhythm between the hurdles.
- Stay on the toes and keep the hips high as you approach the hurdle.

## 2.3. LONG HURDLE TECHNIQUE

- The approach run for the long hurdles is slower than the high hurdles. This allows for less body lean over the hurdle.
- The long hurdler is technically less skilled than the high hurdler.
- However the hips must stay tall and move forward throughout the clearance to maintain the running rhythm.
- If the hips are dropped, horizontal speed will be lost and more strides will be needed to cover the distance.

## 2.4. STRIDE PATTERN AND RUNNING BETWEEN HURDLES

- The hips must be directly above or ahead of the leading foot on touchdown. This will prevent the hips from dropping.
- If the hips are above or ahead of the leading foot on touchdown, stride rhythm will not be disturbed and less energy will be used to get back into rhythm.
- A poor hurdle clearance will lead to rhythm problems.
- Keep the stride length as close as possible to the natural length.
- Get into a stride pattern as soon as possible after the hurdle.
- Count the strides as you run. That way he will know when to alternate legs. In the case of even numbers e.g. 18 strides between hurdles the athlete will lead with alternating legs over the hurdles. For easy counting of the strides, the left leg can be counted every time it touches the ground.



The circles indicate the area where changing of rhythm is suggested in a 400m hurdles race

- Run the first 6 hurdles at a set stride pattern with even numbers, e.g. 18 strides between each hurdle. This will require alternating the legs over hurdles up to the beginning of the last bend.
- Add one stride to the rhythm e.g. 19 strides, up to the 8th hurdle (the end of the bend).
- Try to lead with your left leg around the bend. Leading with the left leg uses much less energy, due to less need for correction.
- If fatigue step in, add another stride after the 8th hurdle, e.g. 20 strides, which will require alternating legs again. Maintain this rhythm up to the end of the race.
- In the case of both the 200m and 300m hurdles the first 5 hurdles must be run with uneven strides to avoid alternating legs. Lead with the left leg only. Add one stride to alternate as you approach the final straight. (The 6th hurdle).

## 2.5. RUN IN

- Concentrate on a good running technique as the athlete approach the straight e.g. high knees, on the toes, breathing, etc.
- Maintain concentration and stride rhythm.
- Any form of weakness in your technique will show in this last stretch.

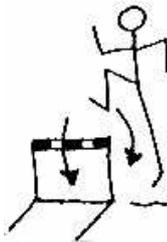
## 3. LEARNING HURDLE DRILLS

### 3.1. TO DEVELOP HURDLE SKILLS

The following drills can be done to develop hurdle skills:

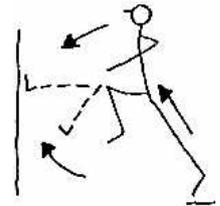
#### ANISIMOVA DRILL

Face the side of the hurdle.  
The lead foot clears back and forth over the edge of the hurdle.  
Stand on the toes.  
Keep the leading foot curled upwards (flexed).  
Keep the hips high.



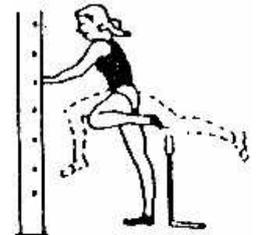
#### WALL ATTACK DRILL

Stand on the toes.  
Fall forward and lift the lead leg at the knee.  
Throw the lower leg out just before hitting the wall while blocking with the opposite arm at the same time.  
Keep the toes flexed.



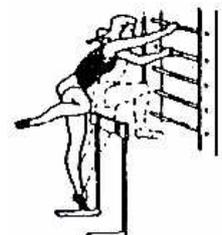
#### TRAIL LEG DRILL

Put a hurdle 1 metre away from the wall.  
The height must be 8 cm lower than race height.  
Lean against the wall with the shoulders square, chest high, and the lead foot on the ground in front of the hurdle.  
Bring the trail leg forwards and backwards across the hurdle in a vertical half-circular motion.



#### HIGH HIPS EXERCISE

Put a hurdle 1 metre away from the wall.  
The height must be +/- 10 cm lower than race height.  
Hold on to the wall head high, with the lead foot on the ground next to the hurdle.  
Stand on the toes and keep the hips as high as possible.  
Bring the trail leg forwards and backwards across the hurdle in a half vertical circular motion.



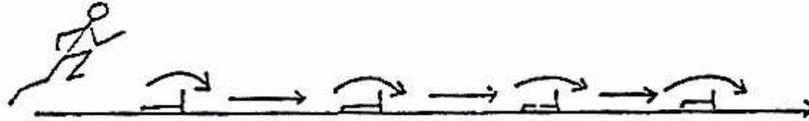
#### STICK DRILL

This drill is used to establish a hurdle rhythm. The athlete uses a falling start with a 7 or 8 stride approach to the first obstacle. The sticks are placed far enough apart to allow for a comfortable 3 stride or 5-stride pattern. Emphasis is on a smooth and relaxed rhythm over 8 to 12 sticks.



### LOW HURDLES

It is a progression from the stick drill with the emphasis on hurdle rhythm. The hurdles are a minimum of 7 cm lower than the racing height and placed 20 to 50 cm closer than racing distance to facilitate a 3-stride pattern. For a 5-stride pattern place the hurdles 50 cm further than racing distance.



### LEAD-TRAIL LEG DRILL

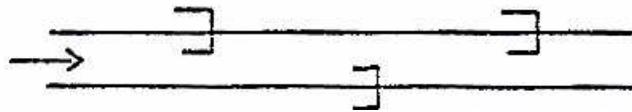
The aim of this drill is to improve the technique of the lead and trail leg actions on the hurdle. The heights and spacing of the hurdles, set alternately for a lead and trail leg clearance, are lower than race specifications. The aim of the athlete is to:

Have a high knee action of the lead leg when attacking the hurdle.

A good drive with a full extension of the driving leg.

An appropriate arm position for an effective clearance of the leg.

The athlete must finish the clearance with the trail leg ending in a high knee position in front of the hurdle.



### 3 STRIDE TRAIL LEG DRILL

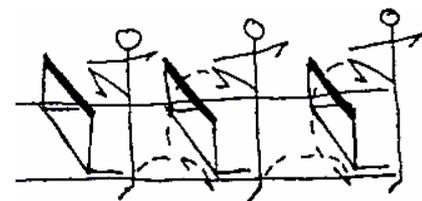
Five hurdles are placed two metres apart in a straight line. The height is +/- 8 cm lower than race height. The athlete goes over the side of the hurdle with the trailing leg. The lead leg passes alongside the hurdle. Give three strides and go over the next hurdle with the trail leg.

Add hurdles as skills improve.



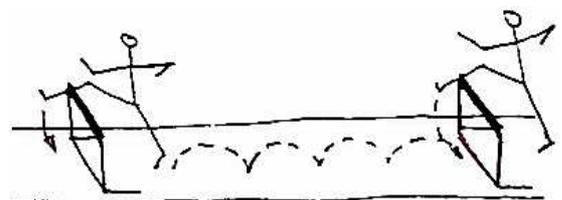
### 1 STRIDE TRAIL LEG DRILL

Five hurdles are placed two to three metres apart in a straight line. The height is +/- 8 cm lower than race height. The athlete goes over the side of the hurdle with the trailing leg. The lead leg passes next to the hurdle. Give one stride and go over the next hurdle with the trail leg. Bring the foot under the hip before the foot touches the ground. Add hurdles as skills improve.



### 5 STRIDE LEAD LEG DRILL

Five hurdles are placed three metres apart in a straight line. The height is +/- 8 cm lower than race height. The athlete goes over the middle of the hurdle with the lead leg while concentrating on bringing the lead leg down fast. Give five strides and go over the next hurdle with the lead leg. Add hurdles as skills improve.



## HURDLE ENDURANCE DRILL

Two sets of hurdles are placed in opposite direction in adjacent lanes.

Athletes run over the first set of hurdles, run around a marker and run over the next set of hurdles in the adjacent lane, back to the start line.

This exercise when done properly is very exhausting.

Add more hurdles as the fitness of the athletes improve.

### ALTERING DISTANCES BETWEEN HURDLES

Place five hurdles in five separate rows.

The distance between the hurdles in each row is different.

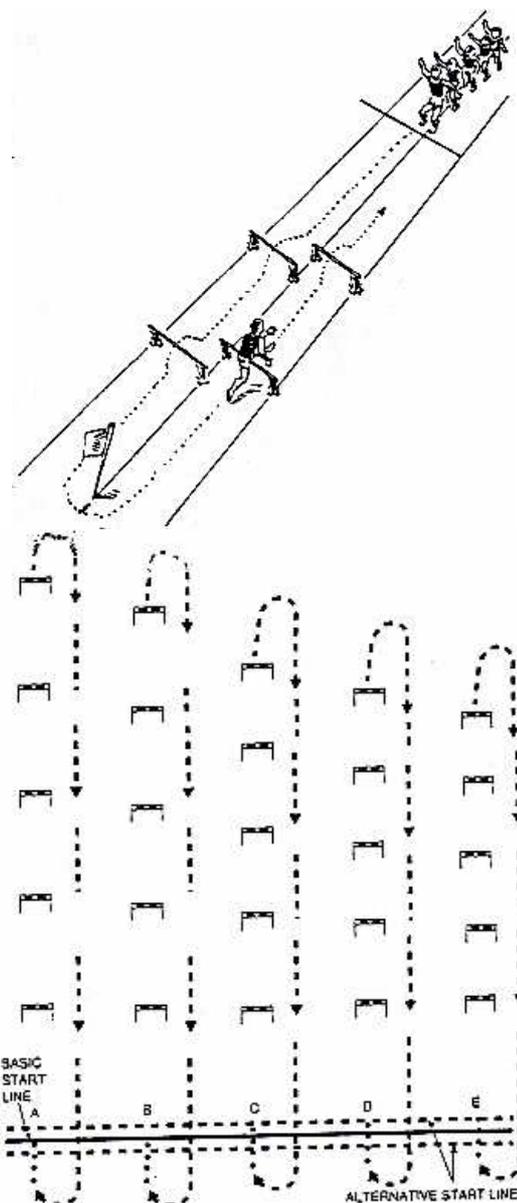
The distance between the hurdles in each row is further apart.

The heights of the hurdles are lower than race height.

The athlete runs a three-stride pattern over the first row hurdles and walk back.

He then runs the next set of hurdles, which is further apart, etc.

The purpose of this exercise is to teach the athlete to judge distance correctly.



## 4. TRAINING FOR HURDLERS

The training programmes for hurdlers are very much alike. The chapter on sprinting can be used to prepare a programme to develop the speed of the hurdler. The hurdler must give more attention to suppleness, rhythm, co-ordination and technique development.

### 4.1. TRAINING PROGRAMMES FOR 70 -110 M HURDLE EVENTS

If your training schedule is limited, you can reduce this into two-weekly cycles rather than month cycles. Phase 1 of each sub-section of the program is used as a conditioning period for the new exercises. During phase 2 the intensity of the training is gradually increased.

HIGH HURDLES LONG TERM TRAINING PLAN SEPTEMBER - APRIL TRAINING METHODS	PHASE					
	CONDITIONING		PREPARATION		COMPETITION	
	1	2	1	2	1	2
Muscle endurance (stamina / aerobic)	30%	25%	20%	15%	10%	10%
Speed endurance (anaerobic)	5%	5%	10%	10%	15%	15%
Strength (power)	15%	15%	15%	15%	20%	20%
Co-ordination drills	10%	10%	10%	10%	5%	5%
Technique drills	30%	30%	20%	20%	15%	10%
Speed (anaerobic)	5%	10%	15%	20%	20%	20%
Active rest (aerobic)	5%	5%	10%	10%	15%	20%

#### 4.2. TRAINING PROGRAMMES FOR THE 200 - 400 M HURDLE EVENTS

If your training schedule is limited, you may telescope this into two-week cycles rather than month cycles. Phase 1 of each sub-section of the program is used as a conditioning period for the new exercises. During phase 2 the intensity of the training is gradually increased.

LONG HURDLES LONG TERM TRAINING PLAN SEPTEMBER - APRIL TRAINING METHODS	PHASE					
	CONDITIONING		PREPARATION		COMPETITION	
	1	2	1	2	1	2
Muscle endurance (stamina)	30%	30%	25%	25%	15%	15%
Speed endurance	10%	10%	15%	20%	25%	25%
Strength	25%	20%	20%	20%	20%	15%
Co-ordination drills	10%	10%	5%	5%	5%	5%
Technique drills	15%	15%	10%	5%	5%	5%
Speed	5%	10%	15%	15%	15%	15%
Active rest	5%	5%	10%	10%	15%	20%

#### EXAMPLE OF A HIGH HURDLES ATHLETE'S TRAINING PROGRAMME

CONDITIONING PHASE		MONTH: SEPTEMBER													
CONDITIONING	EXERCISE	M	T	W	T	F	S	S	M	T	W	T	F	S	S
M endurance	5 x 150m /75%/ rest 1 min	✓		✓					✓						
	4x 200m/ 75%/ 1½ min										✓				
	3 x 300m/ 75%/ 2 min														
Strength	Hills 5x 100m/90%/ 2 min		✓		✓										
	tyres 5x 100m/90%/2 min									✓		✓			
Technique	50x anisimova drill/ l + r	✓		✓					✓		✓				
	50x wall attack	✓		✓					✓		✓				
	50x trail leg exercise	✓		✓					✓		✓				
	50x high hips exercise	✓		✓					✓		✓				
Co-ordination	Stick drill 5x 50m		✓		✓					✓		✓			
	Low hurdles 5 x 50m		✓		✓					✓		✓			
	Lead/trail drill 5x 50m		✓		✓					✓		✓			
	3 stride trail leg 5x 50m		✓		✓					✓		✓			
Rest						✓	✓	✓					✓	✓	✓

#### EXAMPLE OF A HIGH HURDLES ATHLETE'S TRAINING PROGRAMME

COMPETITION PHASE		MONTH: FEBRUARY													
CONDITIONING	EXERCISE	M	T	W	T	F	S	S	M	T	W	T	F	S	S
M endurance	5 x 150m /75%/ rest 1 min	✓							✓						
	4x 200m/ 75%/ 1½ min														
S endurance	Hurdle endurance 5 h x 5		✓		✓					✓		✓			
	5 x 150m /90%/ rest 1 min														
Strength	Hills 5x 100m/90%/ 2 min														
	tyres 5x 100m/90%/2 min	✓		✓					✓		✓				
Technique	50x anisimova drill / L + R	✓		✓					✓		✓				
	50x wall attack	✓		✓					✓		✓				
	50x trail leg exercise	✓		✓					✓		✓				
	50x high hips exercise	✓		✓					✓		✓				
Co-ordination	Low hurdles 5 x 50m		✓		✓					✓		✓			
	3 stride trail leg 5x 50m		✓		✓					✓		✓			
	1stride trail leg 5x 50m		✓		✓					✓		✓			
	5 stride lead leg 5X50m		✓		✓					✓		✓			
Time trail	50m sprint - take time x 5	✓							✓						
	Start to 5 th hurdle x 5			✓							✓				
Start	Start to 1 st hurdle x 5				✓							✓			
Competition							✓							✓	
Rest					✓	✓		✓				✓	✓		✓

**EXAMPLE OF A LONG HURDLES ATHLETE'S TRAINING PROGRAMME**

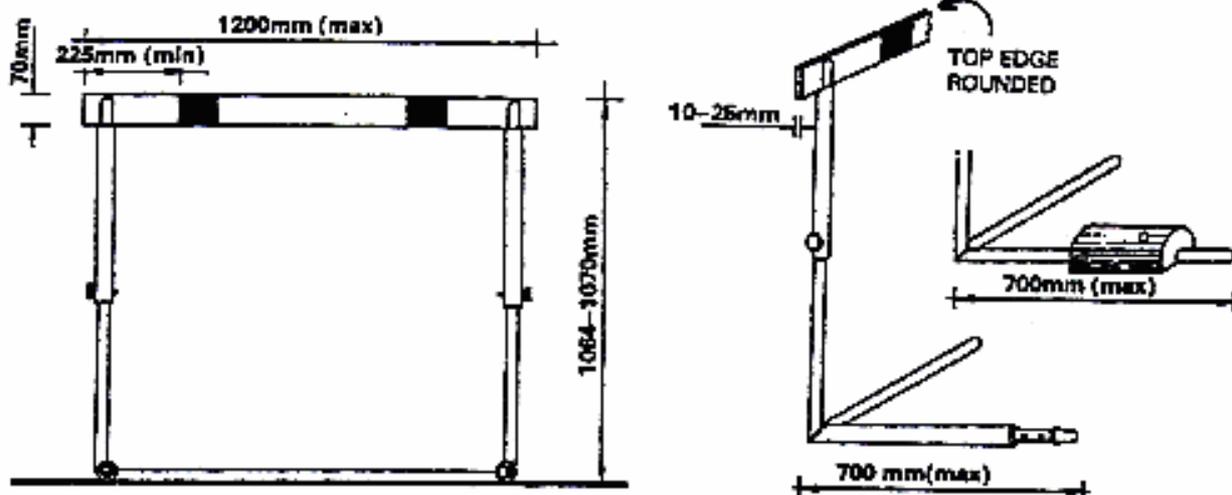
CONDITIONING PHASE		MONTH: SEPTEMBER													
CONDITIONING	EXERCISE	M	T	W	T	F	S	S	M	T	W	T	F	S	S
M. Endurance	5x 200m/ 75%/ 1½ min		✓							✓					
	3 x 300m/ 75%/ 2 min				✓							✓			
S. Endurance	3x(5 sets of alternating distances between hurdles) rest 2 min.	✓							✓						
	5x(6 hurdles endurance exercise) rest 1½ min			✓							✓				
Speed 100%	3x bend s. /70m/recover			✓							✓				
	5x 50m/recover	✓							✓						
Strength	Hills 5x 100m/90%/ 2 min														
	Tyres 5x 100m/90%/2 min	✓		✓					✓		✓				
Technique	50 x anisimova drill/ 1 min	✓		✓					✓		✓				
	50 x wall attack	✓		✓					✓		✓				
	50 x trail leg exercise	✓		✓					✓		✓				
	50 x high hips exercise	✓		✓					✓		✓				
Co-ordination	4 x 4 low hurdles / 1 min		✓		✓					✓		✓			
	3 stride trail leg 5x 50m		✓		✓					✓		✓			
	1stride trail leg 5x 50m		✓		✓					✓		✓			
	5 stride lead leg 5x50m		✓		✓					✓		✓			
Time trial	150m - time last 3 hurdles						✓							✓	
Rest						✓	✓	✓					✓	✓	✓

**EXAMPLE OF A LONG HURDLES ATHLETE'S TRAINING PROGRAMME**

COMPETITION PHASE		MONTH: FEBRUARY													
CONDITIONING	EXERCISE	M	T	W	T	F	S	S	M	T	W	T	F	S	S
M. Endurance	4x 200m/ 75%/ 1½ min				✓					✓					
	3 x 300m/ 75%/ 2 min		✓									✓			
S. Endurance	3x 300m hollow s./ 2 min										✓				
	3x(5 sets of alternating distances between hurdles) rest 2 min.								✓						
Speed 100%	1x 400mh combination run			✓											
	5x(6 hurdles endurance exercise) rest 1½ min			✓											
Speed 100%	3x bend s. /70m/recover	✓									✓				
	5x 50m/recover										✓				
Strength	5x 50 down hill/recover								✓						
	Hills 5x 100m/90%/ 2 min	✓													
Technique	Tyres 5x 100m/90%/2 min									✓					
	50 x anisimova drill/ 1 min		✓							✓					
Technique	50 x wall attack		✓							✓					
	50 x trail leg exercise				✓										
Technique	50 x high hips exercise		✓		✓				✓						
	300m h	✓													
Time trial	150m - time last 3 hurdles					✓							✓		
Competition							✓							✓	
Rest					✓	✓		✓				✓	✓		✓

## 5. RULES FOR HURDLE EVENTS

- 5.1. All rules applicable to sprinters are also applicable to hurdlers.
- 5.2. Each hurdle shall be placed on the track so that the feet of the hurdle shall be on the side of the approach by the competitor.
- 5.3. Purposely knocking over a hurdle or trailing a leg outside and below the level of the top rail leads to disqualification.
- 5.4. The coach and athlete must check if the following specifications are correct according to the rules before the race starts:
  - Event number and time
  - Male or female race
  - Age group
  - The distances of the races
  - Height of hurdles
  - Distance from start line to first hurdle
  - Distance between hurdles
  - Correct amount of hurdles
  - Distances from the last hurdle to the finish line
  -



## BIBLIOGRAPHY

1. ASA Domestic Rule Book, Athletics South Africa, Athletics House, P O Box 2712, Houghton, 2041
2. Basic Coaching Manual - I.A.A.F., 3 Hans Crescent, Knightsbridge, London SW1X, England.
3. But First - B.A.F. 225A Bristol Rd, Edgbaston, Birmingham B5 7UB.
4. Hurdling - Brent Mc Farlane - The Canadian Track And Field Association, 333 River rd, Ottawa, Ontario, Canada, K1J 8H9
5. Hurdling - Malcolm Arnold - British Amateur Athletic Board, Edgbaston House, 3 Duchess Place, Birmingham B16 8NM.
6. IAAF Rule Book, IAAF 17,rue Princesse Florestine, B.P. 459, MC 98007, Monaco Cedex
7. Mobility Training - British Amateur Athletic Board, Edgbaston House, 3 Duchess Place, Birmingham B16 8NM.