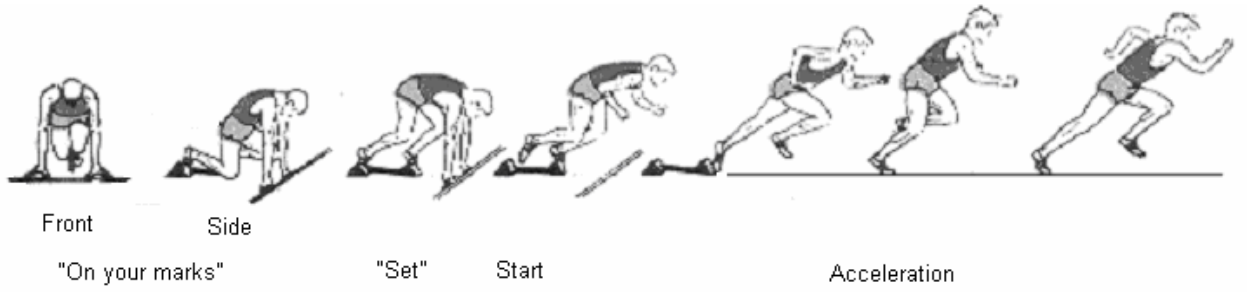
ATHLETICS OMNIBUS - SPRINTS

From the Athletics Omnibus of Richard Stander, South Africa

1. THE SPRINT

The sprint is the fastest event of all events in athletics. The distances 100m, 200m, 400m and relay events are all regarded as sprinting events. The objective is to run the distance from start to finish as fast as possible. Due to the speed of the event, the start of the event is technically adapted to enable the athlete to start fast.



1.1. At the *start* of the 100, 200, 400 metres Running Events, the 110 and 400 metres Hurdles and the first leg of the 4 x 100m and 4 x 400m Relays, the athlete, on the command *on your marks*, crouches with feet supported in the *starting blocks* and with the knee of the back leg resting on the ground (a little further forward than the front foot). At the same time the hands are placed immediately behind the starting line, approximately shoulder width apart, with the tips of the fingers forming a supporting bridge (the second joint of the fingers is often used). The body is balanced and the head relaxed.

1.2. At the command *set*, the knee is lifted from the ground, so that both legs are semi-flexed (the front one about 90^0 and the near one 130^0) and the feet press against the blocks; the hips rise somewhat higher than the shoulders, which should be above the hands; the arms are kept well extended, with weight spread evenly between the supporting points and the gaze is kept low.

1.3. At the sound of the gun, the athlete, in a reflex action, drives against the blocks, at the same time lifting his arms from the ground and so producing an imbalance, which will initiate the starting action.

1.4. The back leg comes through bent, while the other leg is extended forcibly to provide drive. The arms, meanwhile, balance the action of the legs and assist the force-couple as they move semi-flexed in a running action.

1.5. During the first stride, the body moves, *like an arrow* (at an angle of about 45^0) and the strides are short, fast and low, with a rapid action of the foot on the ground (on the sole), but they should not be consciously shortened. Little by little, the trunk will straighten up, whilst the strides will become longer, until the normal running position is reached. The head is held down for the first 30m. Running is a succession of jumps, and, unlike walking; there is a phase when neither of the feet remains supported on the ground.

2. THE SPRINTER SHOULD AVOID:

2.1. Insufficient drive and knee lift.
2.2. Stamping the foot on the ground and landing on the heel.
2.3. Trunk pitched forward or arched backward.
2.4. Turning of the head and excessive lateral movement of the shoulders.
2.5. Too high a movement of the arms and too far across the chest.
2.6. Incomplete extension of the drive leg.
2.7. Running in a zig-zag fashion with a pendulum action.
2.8. At *set*, raising the head, putting the chin too high or too low, incomplete drive and leaning forward too abruptly.

3. THE SPRINTER SHOULD AIM TO:

3.1. To coincide the highest point of the recovery knee with the greatest extension of the driving leg.
3.2. For an elastic 'ankle' action of the driving foot.
3.3. To keep the trunk in a position similar to that of walking.

3.4. To keep the head upright and look straight ahead.
3.5. To move the arms parallel with the hips and only slightly across the body.
3.6. For a complete action of the drive leg in a horizontal rather than a vertical direction.
3.7. To 'run in a straight line' placing the feet one in front of the other.
3.8. At the command 'set' to move the body forward and at the pistol to drive forward with arm and legs.

4. HOW TO DEVELOP SPEED?

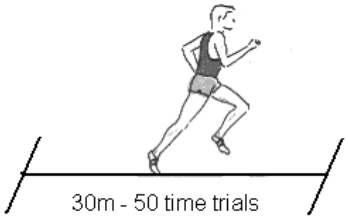
4.1. BY MOVING THE LEGS FASTER. IT IS CALLED LEG SPEED.

Note:

- The leg speed of an athlete can be improved through training, but improvement on the athlete's personal best performance will be marginal.
- Please note that the leg speed of an athlete can decrease as a result of other types of conditioning. Therefore leg speed should be maintained by means of regular leg speed conditioning exercises. Leg speed conditioning is most effective when the neurological and muscular systems are rested.
- Sometimes the driving force (F=mxa) of the athlete is developed but the neurological system of the athlete has not caught up yet.

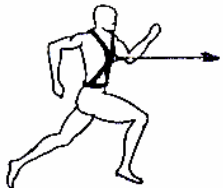
EXERCISES THAT WILL SPEED UP THE BALANCING BETWEEN THE NEUROLOGICAL AND PHYSICAL FUNCTIONS

By running regular 30-50m time trails.



By running downhill. The slope must not be more than 6º, and not longer than 50m.

By towing the athlete with a motorcycle at a speed 0,1 - 0,3 sec. faster than the athlete's maximum leg speed, over 30m with a 40m builds up.



By pulling the athlete with an elastic band. The one end of the elastic band is tied to a pole and the other end around the chest of the athlete. The athlete moves backwards until the elastic band is fully stretched. The athlete runs 10m, with the elastic band pulling.

BY INCREASING THE STRIDE LENGTH, AND MAINTAIN IT THROUGHOUT THE RACE.

By increasing the stride length of an athlete will improve the athlete's personal best performance dramatically. However, to increase the stride length of the athlete requires a lot of strength development and conditioning.

To maintain increased stride length throughout the race takes years to develop.

4.2. A LONG STRIDE LENGTH CAN BE OBTAINED BY:

4.2.1. Lifting the knees higher.
4.2.2. Run tall by running on your toes, hips forward and your back straight.
4.2.3. Push explosively off the track. With the feet.
4.2.4. Have good fore leg reach.
4.2.5. Pump your arms vigorously.
4.2.6. Bound forward, not up.
4.2.7. Maintain good forward lean.
4.2.8. Stay relaxed. Keep the jaw and hands relaxed.

THE SEQUENCE TO FOLLOW WHEN EXERCISES ARE DONE TO DEVELOP STRIDE LENGTH:

- Walk through this exercise several times.
- Repeat, bounding forward off the toes slowly.
  4.2.8.1. Repeat the exercise, gradually increasing speed.

EXERCISES TO DEVELOP STRIDE LENGTH

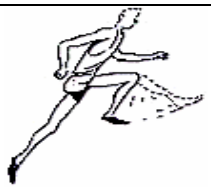
Exercises to develop stride length are not natural movements, so you must practice these exercises. The following exercises can be done to develop a good technique.

HIGH KNEES

Jog while lifting knees high, and move the foot down fast straight away.

REACH EXERCISE

Practice exaggerating reach of the foreleg as you go down field on grass.

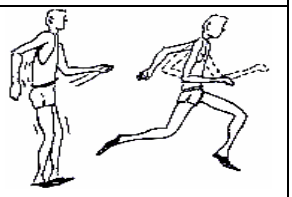


RUN HIGH ON TOES EXERCISE

Stand still. Rise as high on the toes as possible. Run on the spot, high on the toes, lean forward from the heels, and run down field staying high on toes.

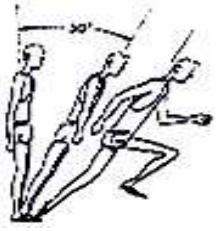
ARM EXERCISE

Bend the arms at the elbow until they are level with the hips, keeping the hands cupped and relaxed. Keeping the arms parallel to the direction of the run, pump them backward and forward. Drive from the elbows, keeping the hands relaxed. First pump slowly, then gradually faster to get more speed



LEAN EXERCISE

Standing feet together and lean forward from the heels about 30º from vertical. Maintain this lean while striding down field.

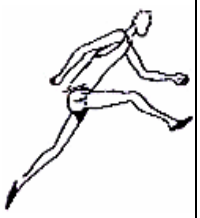


RELAXATION EXERCISE

Run 90% effort over 30 - 50 m, staying as relaxed as possible. Run with an exaggerating loose jaw (let it flop around), and loose hands. Avoid 100% effort.

ARM REACH EXERCISE

Exaggerate your arm reach without trying to go faster. Keep the lead arm low, and reach forward. You will note you will run faster without any extra effort. The hand of the trailing arm must not lift higher than the hip.

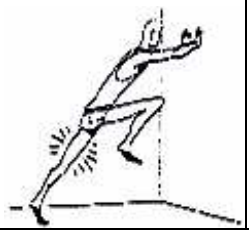


BOUND FORWARD EXERCISE

Practice bounding forward, not upwards, down the field so that the head stays in a straight line. Concentrate on having one foot almost always on the ground, pushing against the ground. When jumping upwards, both feet will be in the air for a long period of time.

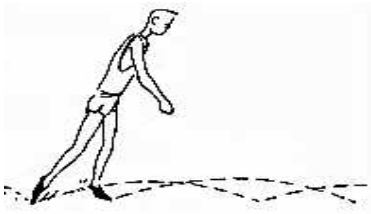
RUN TALL EXERCISE

Put the hands against the wall. Back up as far as you can with the heels on the ground. Then rise onto the toes, lift the leading knee, and feel the power. Note that the heel, hip and head stay in line at all times.



BOUNCE EXERCISE

To develop ankle bounce, lock the knees and bound forward, by just flipping the ankles.



5. HOW TO SUSTAIN TOP SPEED OVER A LONGER PERIOD OF TIME?

Sustaining top leg speed over a longer period is called speed endurance. Maintaining top leg speed over a longer period will also improve the sprinting time of an athlete dramatically. However, it requires a lot of strength development and conditioning.

To sustain top leg speed throughout the race takes years to develop.

It is not natural to lift your knees high, to run on your toes, to push explosively off the track, or to pump your arms vigorously. It is however natural that the athlete's sprint form will deteriorates approximately 75% into the race.

It is therefore important that the athletes are taught to reaffirm their sprint form approximately 25m from the finish line. (50 m in a 200m race and 75m in a 400m race.) At this point, they must develop a conditioned reflex to a word e.g. lift or faster, at which they:

5.1. Take a breath and gather mentally for the finish.
5.2. Lift the knees higher.
5.3. Pump the arms faster, or if this is not possible, reach with them forward about as high as the navel.
5.4. Get up on the toes and run tall.
5.5. Stay loose by keeping the jaw and hands relaxed.
5.6. Focus the eyes on the finish line and do not look around.

This sustaining of speed requires great strength and conditioning. A lot of sprint form exercises must be done, until these drills become habit, even in the heat of the battle.

6. HOW TO FINISH A RACE?

Drive through the finish line as though the finish were 10m beyond, while maintaining form.

Lean forwards right at the tape and throw only one shoulder into the tape. In the case of a close race, it is easier to see a shoulder than an entire torso. It is also easier to maintain form this way.

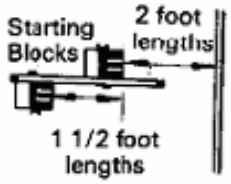
7. HOW TO START A RACE?

Starting exercises should not be done within the first three weeks of conditioning, due to the big injury risk.

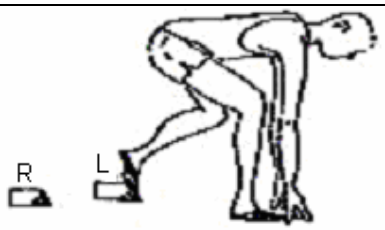
Prior to race or start exercises, the athletes must first warm up properly and stretch their muscles, tendons and ligaments. They must also get to their blocks early and take slow starts, then a few fast starts.

7.1. GETTING IN THE BLOCKS

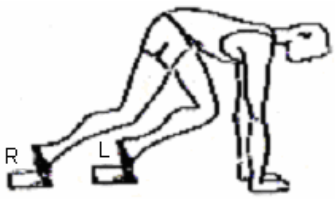
The block setting and position from the start line.



At the command "on your marks" the athlete must get in front of the blocks and back into the block. Place the foot in the lead block first, with the toe barely touching the ground.

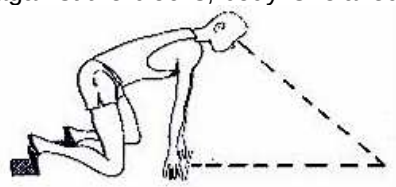


Then back solidly into the rear block.



Sit on the heels, locking the legs in the blocks, and clean rocks or sand off the hands.

Now put your hands just behind the line with the fingers in a high arch.

Hands are cupped; thumb and index finger just behind the line, and directly below the shoulder. Both arms are straight and locked in the elbows. Head is down; neck relaxed and the jaw lose. The eyes are on a spot 2m down the track. 	The weight is comfortable, well forward; Head low; neck relaxed; shoulders are forward of hands, directly above the line; the eyes on a spot 2m down the track. Considerable weight is on the hands. Hands are behind the line; feet are braced solidly against the blocks; body is relaxed; mind is alert. 

7.2. BLOCK SPACING

- There is no fixed position for the blocks to be placed. Experiments with the block spacing to see which position gives you the fastest start over 20m.
- The only rule is that the lower legs must both be in a parallel line to each other in the set position, to enable the athlete an effective drive from the blocks.
- Both knees must tough the line in the 'on your marks' position.
- Allow the athlete to come in the 'set' position with both feet next to each other, without the blocks.
- Both legs must be bending at an angle of 90º.
- Move the trailing leg backwards until the lower legs are parallel to each other, and one-foot length behind each other.
- The feet must be one hand width apart to give stability during the driving phase.
- Mark the position of the feet on the ground, and ask the athlete to move away.
- Place the blocks (both are set at an angle of 45º) on the ground in the same position as the marks on the ground.
- Ask the athlete to get back in the set position in the blocks, and do minor adjustments with each start until the best time over 20m is achieved.
- The longer the athlete, the further the blocks will be behind the line.

7.3. ON 'GET SET' COMMAND

Most of the mistakes are made during this stage.

- The athlete must get in the set position at an even pace. Not to slow and not to fast.
- Get in the set position and immediately concentrate on driving. Do not concentrate on the gun. This will cause a false start.
- Do not look around. It will break your concentration.
- Shut your mind from any movement or sound around you.
- Do not allow the hips to drop back in the set position. This will cause a smaller leg angle, which will lead to less driving power and a slower time out of the blocks.

7.4. ON YOUR MARKS (GET SET)

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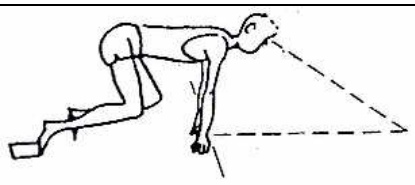
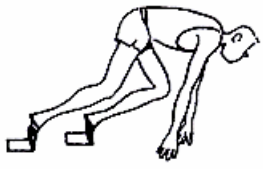
Keep the shoulders still above the line, and not over the line, due to a lack of strength in the arms. Move only the hips upwards until the leading leg forms an angle of 90º. Elevation of hips varies with the block spacing. The closer the blocks, the higher the hips.	
Do not delay coming into the set position. It will lead to the disqualification of the athlete. Be absolutely still on 'set', and hold it until the gun goes off. Movement of the feet will lead to disqualification when electronic blocks are used. Keep the head low, neck relaxed, elbows locked. Feel pressure on the blocks, especially on the front block. The eyes are now 1 to 1,5 m down the track. Take a breath at 'get set' and hold until the gun. Think of driving at the report of gun. Be relaxed, but alert and ready to go.	

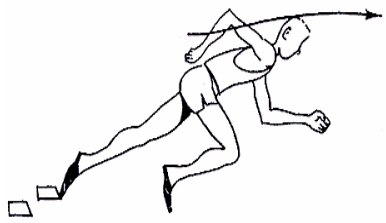
7.5. AT THE GUN

This stage must be exercised frequently. The athlete must concentrate on the following:

7.5.1. The left arm drives forward hard, straight ahead.
7.5.2. The right arm drives back hard, with the hand only as far as the hip.
7.5.3. The left leg drives hard off the front block.
7.5.4. Right leg comes out low, fast and close to ground.
7.5.5. The hips go forward, not up or down.
7.5.6. The eyes look at a spot on the ground 5m ahead for the first 20m.

7.6. THE START - THE FIRST 10M

7.6.1. Drive in a straight line from left toe through the back of the head.
7.6.2. The left arm is parallel to track, not up.
7.6.3. The right arm comes back, not farther than the hip.
7.6.4. The right hand comes back hard, then forward fast.
7.6.5. The left foot stay low, flat and fast in the first stride.
7.6.6. Do not rise to full height until 10m out.
7.6.7. Gradually raise eyes until the finish tape can be seen.
7.6.8. Stay high on the toes.
7.6.9. On 'go' concentrate on driving one limp only, e.g. get the rear foot down flat and fast, or drive hard of the front block.
7.6.10. Think of being ahead at 20m rather than of just getting out of the blocks first.



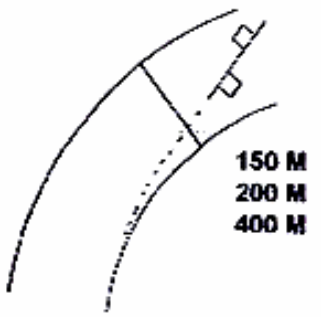
8. SPECIFIC INFORMATION FOR 200M RUNNERS

8.1. THE START

The blocks must be placed at an angle to enable the athlete to run the first 10 - 15m in a straight line. Drive very hard of the track to gain maximum advantage from the straight running. Once the inside line is reached, the athlete must stay close to the line.

8.2. HOW DO YOU STAY CLOSE TO THE LINE IN THE BEND

- Carry the left arm lower.
- Pick the inside shoulder slightly up and push it slightly forward.
- Bring the outside arm across towards the chin.
- Keep the eyes on the inside line of the lane on a spot 30m ahead.
- Lean into the bend with the whole body.
- Concentrate on a powerful drive in the bend without tensing up.
- Stays close to the inside line in the second half of the bend.
- When running in the inside lane, run close to the outside line to neutralise the effect of the severe bend. In all the other lanes, the athlete must stay close to the inside line.



8.3. HOW DO YOU COME OUT OF THE BEND?

8.3.1. Bring both shoulders in a horizontal line and relax.
8.3.2. Drive forward with the arms.
8.3.3. Focus the eyes on the finish line.
8.3.4. Concentrate on stride length rather than leg speed.

9. SPECIFIC INFORMATION FOR 400M ATHLETES

The 400m athlete must learn to handle various situations in a race.

9.1.1. Learn that there are 400 m to express his/her abilities.
9.1.2. Sudden accelerations are costly. Even energy distribution is of more importance than sticking to intermediate times (split times).

9.1.3. Clawing back an opponent's early lead is done gradually.
9.1.4. A 400 m race is a combination of striding and driving. The athlete must learn to feel a given effort. The athlete must be able to listen to the body.
9.1.5. Be just as disciplined in starting as the short sprint distance athlete.
9.1.6. Be able to judge pace. Through time trials the athlete can learn the ability to judge his/her pace in a race.
9.1.7. Be able to adjust pace. The athlete must be able to change from cruising to sprinting without tensing up.
9.1.8. Be able to maintain rhythm. The athlete must control an efficient and effective stride even during periods of fatigue.
9.1.9. Proper breathing must be maintained throughout the race.
9.1.10. Sustaining top speed is very important during the last 100m of the race. Refer to the chapter on sustaining of top speed.

10. TRAINING FOR SPRINTERS

The conditioning philosophy for sprinters is as follows:

10.1. Use an over distance approach.
10.2. First quantity, then quality.
10.3. Build a foundation of endurance and then develop speed gradually. This will prevent injury.
10.4. For the first month of training you will do no speed work and you will not time anything.
10.5. Develop speed by doing a great deal of short, fast work and by improving the sprinting form.
10.6. The test distance for endurance will be 300 m, and test distance for speed will be 30-50 m. A sprinter will only be successful when both tests are done well.
10.7. As the season progresses, the athlete will do less quantity work and more quality work.
10.8. Workouts will generally be a hard day followed by an easy day, with a lightening up of work two days before competition or time trail.
10.9. The training schedule is flexible. The athlete may change the daily routine because of weather, body condition, or emotional outlook.
10.10. The athlete should completely recover from one workout to the next. If the athlete is not completely recovered, do less work, or rest to ensure recovery of the body.
10.11. The athlete should never run when he/she is ill or have an injury.
10.12. Your workouts must be fun or rewarding, preferably both.

11. TRAINING SESSIONS

11.1. All training sessions should always start of with warm-up session and stretching exercises.
11.2. After all training sessions a cool down and stretching session should follow.
11.3. Refer to the chapter on mobility for event specific warm –up and stretching exercises.

12. TYPES OF TRAINING

12.1. MUSCLE ENDURANCE TRAINING

INTERVAL RUNS E.G.:

- 12 x 150 m @ 75% - rest 1 minute between reps.
- 8 x 200 m @ 75% - rest 1 minute between reps.
- 6 x 300 m @ 75 % - rest 2 minutes between reps.

BREAK DOWN INTERVAL RUNS E.G.:

- (400 m, 300 m, 200 m, 150 m, 100 m) @ 75% - jog back

BUILD UP INTERVAL RUNS E.G.:

- (150 m, 200 m, 300 m, 400 m) @ 75% - jog back.

PYRAMID INTERVAL RUNS E.G.:

- (150 m, 200 m, 300 m, 200 m, 150 m) @ 75% - jog back

12.2. SPEED ENDURANCE TRAINING

NORMAL TEMPO RUNS E.G.:

- 6 x 110 m @ 90% - rest 1 minute between reps.

- 4 x 150 m @ 90% - rest 2 minutes between reps.
- 3 x 300 m @ 90% - rest 3 minutes between reps.

BREAK DOWN TEMPO RUNS E.G.:
- (300 m, 200 m, 150 m, 100 m, 50 m) @ 90% - walk back.

BUILD UP TEMPO RUNS E.G.:
- (50 m, 100 m, 200 m, 300 m) @ 90% - walk back.

PYRAMID TEMPO RUNS E.G.:
- (50 m, 100 m, 150 m, 100 m, 50 m) @ 90% - walk back

COMBINATION TEMPO RUNS e.g. for a 60 sec. 400 m sprinter:
- 300 m in 45 sec., rest 30 sec. and sprint 100 m.

HOLLOW SPRINTS E.G.:
- 40 m sprint, 30 m cruise, 30 m sprint, and walk back.

STEP DOWN 200'S
- Each successive 200 m is one second faster. Walk or jog between. When you can do 25-24-23, you can run a 47 sec. 400 m.

10 X 110M SPRINT @ 90% EFFORT.
- Concentrate on correct form the last 30 m.

SPEED ENDURANCE TIME TRAILS
- 300 m sprint - take time
- 100 m sprint - take only time of last 30m

12.3. SPEED TRAINING

50 M DOWN HILL SPRINTING X 5
- The slope must not be more than 6º.

FLYING 30'S
- The athlete takes a flying start, and the time is taken between two beacons when the athlete is full speed.
- 30 m acceleration - 30 m sprint x 5

SPEED TIME TRAILS
- 50 m sprint - take time
- bend sprint over 70 m - take time
- 30 m sprint from start.

RUNNING DOWN HILL - slope 6º - 5 x 50 m

ELASTIC BAND - exercise 5 x 10 m

MOTOR CYCLE PULL - 5 x 30 m with 30 m acceleration

12.4. TECHNIQUE DRILLS AT CONTROLLABLE SPEED

- 5x 50 m high knee action - walk back
- 5x 50 m reach exercise - walk back
- 5x 50 m run high on toes - walk back
- 5x 50 m arm reach exercise - walk back
- 5x 50 m bounding - walk back
- 5x 50 m bounce - walk back
- 5x 50 m forward lean exercise - walk back
- 5x 30 sec. run tall exercise - rest 30 sec. - walk back
- 5x 50 m relaxation exercise - walk back

- 5x 50 m flick up heels exercise - walk back

12.5. CO-ORDINATION DRILLS

PIPE DRILLS
- Place 20 pieces of hose pipe 500 mm apart and run over the pipes as fast as you can, without toughing.

5X 50 M HEIDI HOPS
- Run with a double step in each stride.

5X 50 M STRAIGHT LEG DRILLS
- Lift straight leg hip high, and down, followed by the other leg. Keep upper body upright.

5X 50 M LONG/SHORT LEG DRILLS
- Lift bend leg hip high, and down. Tough the ground. Then lift the same leg up straight, hip high. Repeat with the other leg. Keep upper body upright.

5X 50 M FRONT/SIDE DRILLS
- Lift straight leg hip high, and down toughing the ground and immediately kick sideways. Repeat with the other leg. Keep upper body upright.

12.6. STRENGTH TRAINING

Strength training form an important part of the sprinter's training programme. For specific training methods for sprinters, refer to the chapter on Strength Training.

12. TRAINING PROGRAMMES

TRAINING PROGRAMMES FOR 100M – 200M

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.

100 M - 200 M LONG TERM CONDITIONING	**PHASE**					
SEPTEMBER - APRIL	CONDITIONING		PREPARATION		COMPETITION	
TRAINING METHODS	1	2	1	2	1	2
Muscle endurance (stamina)	30%	25%	20%	15%	10%	10%
Speed endurance	5%	5%	10%	10%	15%	15%
Strength	15%	15%	15%	15%	20%	20%
Co-ordination drills	20%	20%	15%	15%	10%	10%
Technique drills	20%	20%	15%	15%	10%	5%
Speed	5%	10%	15%	20%	20%	20%
Active rest	5%	5%	10%	10%	15%	20%

TRAINING PROGRAMMES FOR 200M – 400M

- 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.

200 M - 400 M LONG TERM CONDITIONING	**PHASE**					
SEPTEMBER - APRIL	CONDITIONING		PREPARATION		COMPETITION	
TRAINING METHODS	1	2	1	2	1	2
Muscle endurance (stamina)	30%	30%	25%	25%	20%	10%
Speed endurance	5%	10%	15%	20%	20%	20%
Strength	15%	15%	15%	15%	20%	20%
Co-ordination drills	20%	15%	10%	10%	5%	5%
Technique drills	20%	15%	10%	5%	5%	5%
Speed	5%	10%	15%	15%	15%	20%
Active rest	5%	5%	10%	10%	15%	20%

EXAMPLE OF A 100-200 M ATHLETE'S TRAINING PROGRAMME

CONDITIONING PHASE		MONTH: SEPTEMBER													
CONDITIONING	**EXERCISE**	M	T	W	T	F	S	S	M	T	W	T	F	S	S
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		✓		✓										
	lyres 5x 100m/90%/2 min									✓		✓			
Technique	High knee 5x 50m	✓		✓					✓		✓				
	Leg reach 5x 50m	✓		✓					✓		✓				
	Arm reach 5x 50m	✓		✓					✓		✓				
	On toes 5x 50m	✓		✓					✓		✓				
Co-ordination	Pipe drills 5x 50m		✓		✓					✓		✓			
	Heidi hops long 5 x 50m		✓		✓					✓		✓			
	Heidi hops fast 5x 50m		✓		✓					✓		✓			
	Straight legs 5x 50m		✓		✓					✓		✓			
Rest						✓	✓	✓					✓	✓	✓

EXAMPLE OF A 100-200 M ATHLETE'S TRAINING PROGRAMME

COMPETITION PHASE		MONTH: FEBRUARY													
CONDITIONING	**EXERCISE**	M	T	W	T	F	S	S	M	T	W	T	F	S	S
Strength	Upper arm muscles x 20		✓		✓					✓		✓			
	Sit-ups x 20		✓		✓					✓		✓			
	Hamstring exercise x 20	✓		✓					✓		✓				
	Thigh exercise x 20	✓		✓					✓		✓				
Strength	Hills 3(4 x 60m / 80%)														
Endurance	Tyres 3(4 x 80m / 80%)		✓							✓					
Technique	High knee action 4x 50m		✓		✓					✓		✓			
	Leg reach 4x 50m		✓		✓					✓		✓			
	Arm reach 4x 50m		✓		✓					✓		✓			
	Pipe drills 4x 50m		✓		✓					✓		✓			
Co-ordination	Heidi hops fast 4x 50m	✓		✓					✓		✓				
	Straight leg 4x 50m	✓		✓					✓		✓				
	Long/short leg 4 x 50m	✓		✓					✓		✓				
	Front/side leg 4x 50m	✓		✓					✓		✓				
Time trail	50m sprint - take time X 5	✓		✓					✓		✓				
	70m bend - take time X 5			✓							✓				
Start	1 st 10m - take time X 5				✓							✓			
	1 st 30m - take time X 5				✓							✓			
Competition	100 - 200m (80 - 100m)						✓							✓	
Rest					✓	✓		✓				✓	✓		✓

EXAMPLE OF A 200-400 M 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	4x 200m/ 75%/ 1½ min	✓		✓					✓		✓				
	3 x 300m/ 75%/ 2 min														
	100m/200m/300m/75%/1 min		✓		✓					✓		✓			
S. Endurance	3x 300m hollow s./ 2 min														
	200m step down's														
	100m/200m/300m/90%/1 min														
Speed 100%	3x bend s. /70m/recover														
	5x 50m/recover														
Strength	Hills 5x 100m/75%/ 2 min	✓		✓					✓		✓				
	Tyres 5x 100m/75%/2 min														
Technique	High knee 5x 50m		✓							✓					
	Bound forward 5x 50m		✓							✓					
	Run tall 5x 50m		✓							✓					
	Relaxation 5x 50m		✓							✓					
	On toes 5x 50m		✓							✓					
Co-ordination	Heidi hops fast 4x 50m				✓							✓			
	Straight leg 4x 50m				✓							✓			
	Long/short leg 4 x 50m				✓							✓			
	Front/side leg 4x 50m				✓							✓			
Time trial	300m													✓	
Competition															
Rest						✓	✓	✓					✓	✓	✓

EXAMPLE OF A 200-400 M 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										✓				
	200m step down's								✓						
	1x 400m combination run			✓											
	100/200/300@90%/1 min			✓											
Speed 100%	3x bend s. /70m/recover	✓									✓				
	5x 50m/recover										✓				
	5x 50 down hill/recover								✓						
Strength	Hills 5x 100m/90%/ 2 min	✓													
	Tyres 5x 100m/90%/2 min									✓					
Technique	High knee 5x 50m		✓							✓					
	Bound forward 5x 50m		✓							✓					
	Run tall 5x 50m				✓										
	Relaxation 5x 50m		✓		✓				✓						
	On toes 5x 50m									✓					
Time trial	300m	✓													
	150m - time last 50m					✓							✓		
Competition							✓							✓	
Rest					✓	✓		✓				✓	✓		✓

13. GENERAL TECHNICAL RULES FOR SPRINTERS

13.1. For races up to and including 400m, athletes must use starting blocks.
13.2. The feet must touch the blocks.
13.3. The hands must be behind the start line without touching it.

13.4. Both hands must touch the track.
13.5. A crouch start must be used.
13.6. Athletes must stay in their lanes throughout the race.
13.7. In the 200m and 400m races, the starts are staggered.
13.8. The direction of run is left hand inside.
13.9. At the start, all athletes must remain motionless from the command ‘set’ until the starter fires the gun.
13.10. After a false start was made, the athlete will be warned once, and disqualified after a second false start.
13.11. Interference of any sort, with other runners will constitute a false start.
13.12. At the finish the runners are placed in the order in which any part of their trunks (not head, neck, arms, legs, hands or feet) reaches the finishing line.
13.13. At least three timekeepers are needed for first place in case of a record.
13.14. For official records at provincial level or higher, a fully automatic electronic timing device must be used.

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