

# Unlocking the Secrets to Jamaican Sprinting

Mechanics and Drills for Speed

## Warm up

- 1 Depending on the climate and what time we train our warm-up varies
- 1 A dynamic warm up is standard, with at least 6x30-40-50m accelerations
- 1 During the warm-up mechanics are constantly reinforced
- 1 When there is a speed day specific sprint drills are included in the warm up session
- 1 We try to finish our drills 10-15 minutes before our main activity

## Dynamic warm-up sequence

- 1 Walking
- 1 Easy jog
- 1 Arm swings
- 1 Toe touches
- 1 Ankling
- 1 Back lunge& forward lunge
- 1 Side skip
- 1 Groin skip

## Warm drills

Walking one or two laps



Arm swings



## Warm drills

Backward lunge



Forward lunge



## Warm up drills

Ankling



Toe touches



## Mechanics and Drills for Speed

- 1 Sprinting mechanics are designed to educate the body on the components of the sprinting process
- 1 The demands include:
  - 1 Hip flexion
  - 1 Endurance
  - 1 Flexibility
  - 1 Extension on ground contact
  - 1 Stride length and frequency

## Mechanics continued

Arm action



- Swing from the shoulders and have them about 90 degrees
- Pull down and back

## Mechanics Body Lean

- 1 Have a slight forward lean
- 1 The angle of the lean comes from the ground and not the waist
- 1 The lean comes from displacing one's center of gravity in the direction which they are running
- 1 Try not to be tight in your upper body

## Mechanics continued

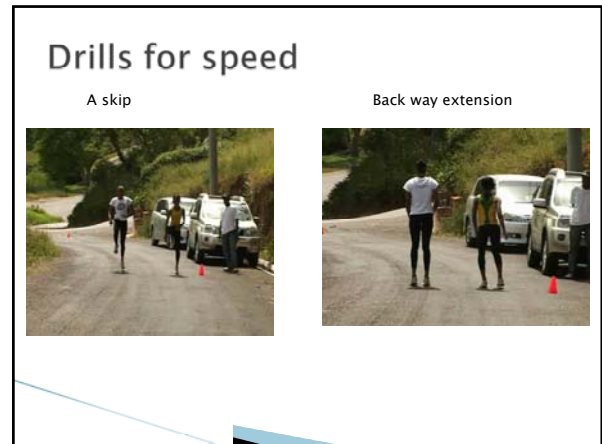
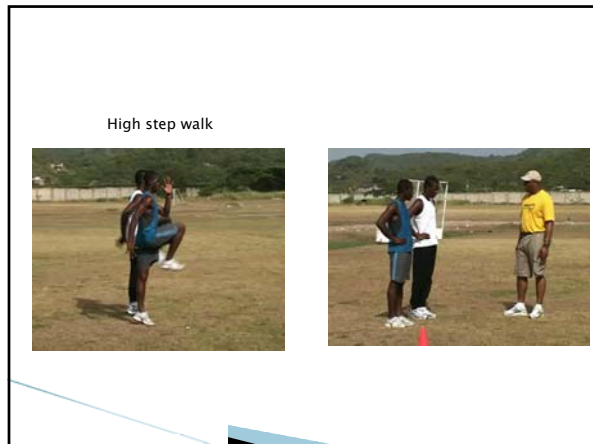
- 1 Do not tell athletes to run on their toes
- 1 Run on the balls of your feet and push against the ground, try not to reach out

## Drills for speed

- 1 Dynamic warm-up inclusive of acceleration drills
- 1 High knee walk
- 1 A SKIP
- 1 B SKIP
- 1 Variations of both drills with arms extended in front and behind

## Drills for speed

- 1 High knees quick drill
- 1 Fast leg
- 1 Backwards running
- 1 Lunge walk
- 1 45 degrees walk



- Drills for speed
- A series of exercises are done before the program begins ex.
  - Hip exercise
  - Bicycle
  - Lead leg pickups
  - Abductor and adductor drills
  - Leg swings

- Strength training
- Circuit training is used in the early part of the season
  - Additional body exercise are done ex.
  - Hip raise
  - Knee to chin
  - Hip extension
  - Iron cross

- Strength work
- Stability work is done with cones ex.
  - Side hop
  - Alternating leg over
  - Forward jumps
  - Single leg hops
  - Quick contact hurdles

- Strength work
- Contrast training exercises ex.
  - Sled pull from three point
  - Weighted vest
  - Med ball bucket toss
  - Speed belt
  - Speed assist with tubing

## Strength work

Hip raiser



Slay drill



## Circuit training



## Block Starts

- 1 We include start drills in our program from day one ex. Three point, standing start, hop hop and also various other reaction drills.
- 1 "ON YOUR MARKS"
- 1 Most importantly: strongest and most agile leg is placed in the front block
- 1 Hands behind the start line: eyes looking forward along the ground
- 1 Neck is relaxed, head inline with the trunk

On your marks

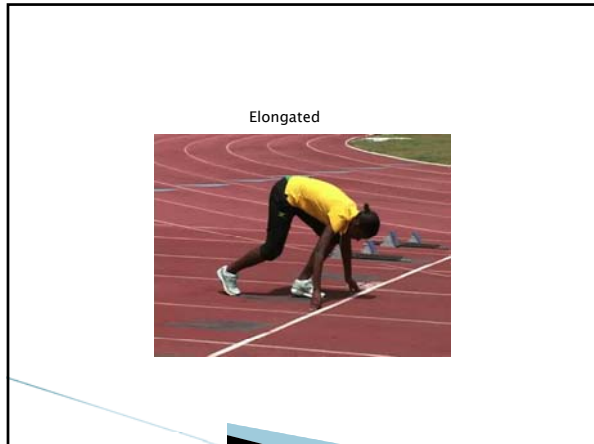


Bullet

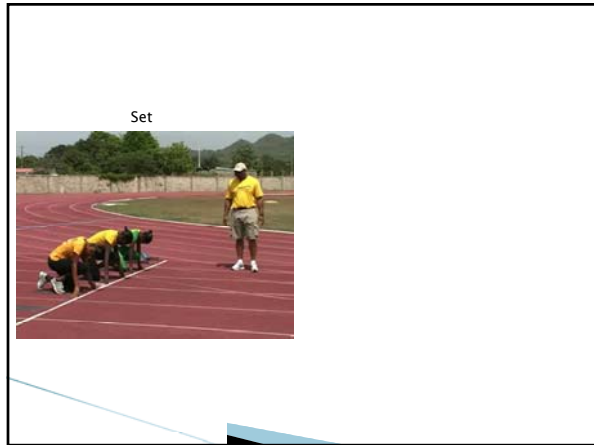


Medium

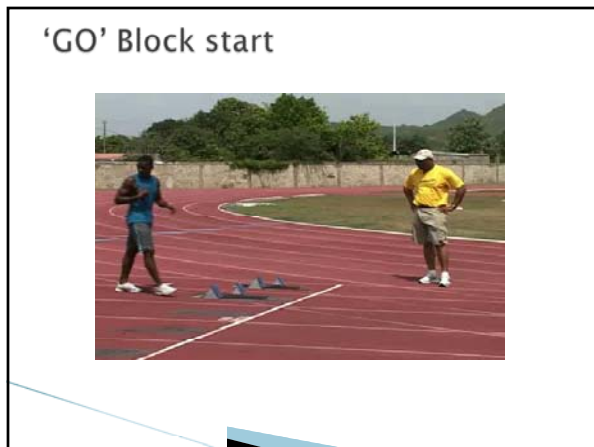




- ### SET
- This position must enable the athlete to push off the blocks
  - Even weight distribution
  - Hips higher than shoulders
  - Front leg about 90 degrees rear leg 120 degrees



- ### GO
- Explosive drive from starting blocks, first from rear then front block the push is really off both legs
  - Legs fully extended on driving
  - Rear leg swings forward fast and low after drive
  - Push back into the track with vigorous arm swings



- ### Drills to improve the start
- Push against the wall drill
  - Slay drill or tire drills
  - Hill work
  - Contrast training
  - Different start commands are practiced
  - One and two legged jumps then sprint

## Drills to improve start

10m resistance drill



Bullet belt drill



## Reaction drills to improve start



## How relays have affected Jamaica's success

- 1 1952 Herb Mckenley, Les Laing, Arthur Wint and George Rhoden won our first ever relay gold medal
- 1 This then created a relay culture in the country
- 1 In the high schools coaches place a high value on relays when competing at the championships
- 1 The skills are taught at an early age

## Relays techniques and drills

- 1 The preferred technique for passing the baton used in Jamaica is a modification of the push pass.
- 1 Chemistry, speed and execution is very important
- 1 Always put together a pool of athletes early in the program

## Relays techniques and drills

- 1 Proper technique is continuously reinforced
- 1 Relay work is sometimes used to enhance speed training
- 1 Try not to leave a session without reinforcing and perfecting exchanges with your team

## Seasonal overview of relay progression

- 1 GPP Baton passing work begins early in the season, basic technique and drills are thought
- 1 SPP by the specific period all relay concepts are in place and practiced
- 1 Competitive period: teams are competing every other week

## The finish



## The world record run



## Relays

- Two main types Visual and Non Visual
- Visual mostly used for 4x400m and 4x800m
- Non visual 4x100m and 4x200m

## Relays “The start”

- Use any of the start technique
- Hold the baton between thumb and forefingers creating a bridge at the end of the baton



## Relay start



## Relay start

- Starter must start with baton in the right hand then pass to left etc
- Hold the baton at the end
- Relay runners must be properly positioned on the track, right left etc

## Relays

- 1 The Incoming runner must :
- 1 Maintain lane position, keep to the correct side of the track
- 1 Keep the speed of the baton moving through the zone
- 1 Give clear command
- 1 Is the chief person responsible for the exchange

## Relays

- 1 The Outgoing runner:
- 1 Must accelerate maximally out of the acceleration zone
- 1 Listen for the command given
- 1 Must maintain a steady hand

## Drills for relay speed

- 1 Static exchange : one command is given all hands go up the baton is passed quickly to the front
- 1 This helps in making sure the baton is passed in a steady hand, the passer is concentrating while there is noise beside him
- 1 Helps in passing quickly but accurately
- 1 Movement can be added to this drill

## Relay drills

Static reach drill hand touch no baton



Static reach drill from a back view



## Relay drills with baton



## Competitive relay drills in static position



## Relays drill from static to dynamic



Jogging reach drill



## Relays

- Chasing: athlete can be in a three point position, incoming one meter away on given command try to catch runner in the takeover zone
- Half track changes

## The zones used in relays

- The acceleration zone: 10 meters in length
- The purpose is to allow outgoing runner to reach close to top speed as baton is exchanged
- The take over zones : 20m in length
- Both zones are known as the take over zone 30m in length

## Acceleration zone drills

Using mark to train outgoing runner



## Relays

Half speed exchanges

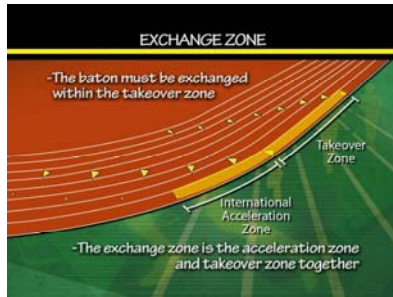


## Relays

4x100m exchange under pressure



## Relay zones



## 4x400m relay

- 1 A visual pass is used
- 1 No verbal command is given
- 1 Collect baton in left then change to right after clearing traffic
- 1 There is a 20m zone

## 4x400m exchanges

4x400m easy exchange



## 4x400m exchanges

4x400m under pressure



## Relay tips

- 1 Do relay passing in warm-up
- 1 Frequency two to three times per week working different legs
- 1 Good turn runners leg 1<sup>st</sup> and 3<sup>rd</sup>
- 1 Good speed endurance for backstretch and anchors
- 1 Good starters out of the blocks

## Relay tips

- 1 Try to put the four most cohesive runners on the team not necessarily the four fastest
- 1 Relays can help to detract from the monotony of training