



Long Sprints: Techniques and Strategies

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Don Berger Resume

The background of the slide is a photograph of a red running track. In the foreground, a person in a white shirt and dark pants is running. In the middle ground, several people in red shirts are standing on the track. In the background, more people are visible, some sitting on bleachers. The track has white lane markings and a curved path.

40 Years of Coaching Track

9 Team State Championships

21 Team District Championships

60 Individual/Relay State Championships

Coached best 2A teams (B & G) in Oregon history

Coached best XC team in school history

Coach of the Year at League, State, Regional and
National Levels

Memories of 40 years



Titles and championships

2 state championships in same year

Girls' state title won on last leg of the 4 x 4 relay

Daughter on state title team

Grand daughter born on district title day

Amusing incidents:

“Dude, I forgot the baton”

“Wait, you can't start yet”

“Where's my mom?”

Today's Clinic Presentations

Objective: share techniques and strategies that work for improvement and excellence! This is not a scientific talk, but is based on:

- What I've learned from dozens of clinics as well as books, videos, USATF classes, other coaches, etc.
- What works for our success: we currently have a sophomore girl state 6A 200 meter champion who ran 24.58a this season. Three years ago using our system/techniques we had a girl champion in the 300 hurdles in 43.68a and a boy run 10.82a in the 100. (See video of Rebekah at Statesman Journal)

Hopefully, you will find an idea or two to put into your program! I appreciate the invitation and chance to share with you!

Long Sprints Preseason



Long Sprints Pre-season

- *We start in January -- Tu, W, F 2:45 to 4:00
- *Develop speed/acceleration with speed endurance
- *Plyometrics--gradual build-up(boxes, stairs, bounds)
- *Hills to gain power and work on knee lift & toe up
- *Core work ALL YEAR LONG for posture, form, etc.
- *We compete in one indoor meet & one intrasquad
- *We begin to plan out the year's practices (using previous year's plan and this year's goals). Meets are characterized as developmental (learn from and train through), important (more mental work), crucial (peaking for district and state)

Sprint Warm-up



Sprint Warm-Up

35 minutes before race -- meet with teammates

30 minutes to go -- 10 minute jog, get faster

20 minutes to go -- Sprint drills, dynamic "stretches"

15 minutes -- Accelerations (# depends on weather)

10 minutes -- Break, put on spikes (near the line)

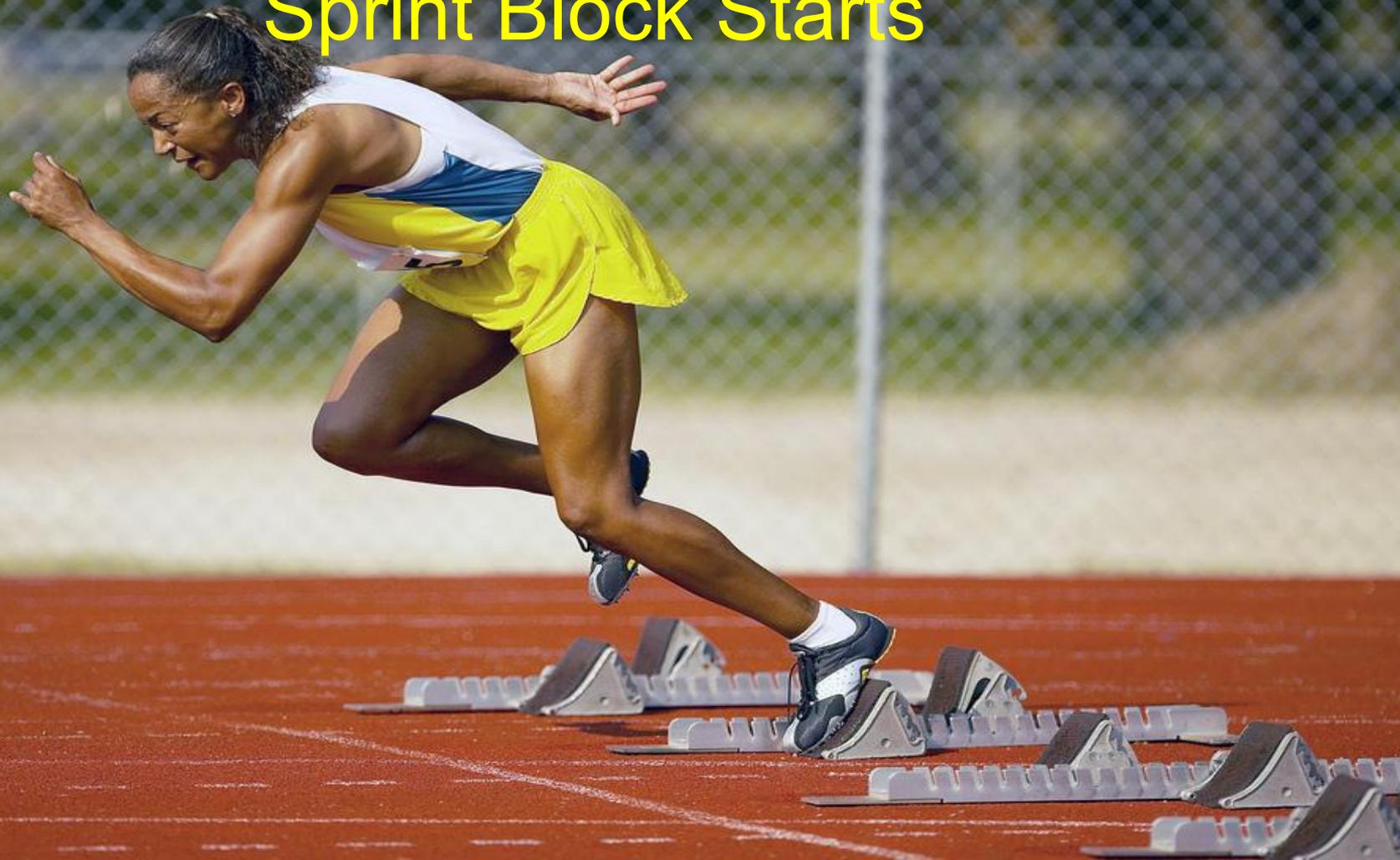
5 minutes -- Set blocks, practice starts

For big meets, we may begin earlier

(For practice we add in fence and arm drills)

Do it all again for next event

Sprint Block Starts



SPRINT BLOCK STARTS

Teach in practice how to use different block types

Always check that there are spikes in the bottom of the blocks

Teach setting blocks (2' to front block, then 1) or kneeling at the line

Angle of the pad -- 45 degrees (not vertical)

Have athletes follow a set routine every time

Teach how to set blocks on the curve -- run straight as long as possible -- in blocks inside hand is about 4" behind the line

ON YOUR MARK

Hands -- up high on fingers (we do a lot of fingertip pushups)

Arms -- wider than shoulder width, straight

Head -- eyes a little ahead of the line

Feet -- toes touch the track, or are slightly higher

Sprint Block Starts

SET

Raise hips to about 3-4" above shoulders

Knee angles 90 and 120

Do not roll the shoulders forward past the line (or very little lean)

Breathing -- on set, take a deep breath and hold

AT THE GUN

First action from blocks --push off both blocks, explode breath from lungs, explode the arms (big first arm action, then into running form), back foot comes out low and hard keeping ankle behind knee

Athlete should not jump out of blocks; literally run out of them

Short, quick and powerful strides on ball of foot; long ground contact time

First 30-40 meters -- chin and eyes down, feet under center of mass pawing back, after big arm action settle into running action slamming elbows down





Sprint Form



Sprint Form

Posture

- * Hips Tall, up on balls of the feet
- * Head Level, shoulders down and relaxed
- * Face, neck and hands are relaxed

Arms

- * Range of motion with hands from mid-line in front to slightly behind hip at rear
- * Variation of angle at elbow is approximately 90-140 degrees (front to rear) --
“click the keys” -- room for a basketball to go through behind the back!
- * Cue driving arms back to put front of shoulder on stretch
- * Arms cross to singlet strap but not further, hands to chin height

Legs

- * Don't lift knees, drive them
- * There should be striking action of the foot as it comes into support (a pawing action)
- * Foot contact is on the ball of the foot under the center of mass
- * Cues -- knee up, toe up, step over (toe down is a “kiss of death” for speed)

*Teaching -- analysis of videos of the world's best, and videos of themselves (example Usain Bolt slow motion video)





Sprint Race Tactics/Strategies

Sprint Race Tactics/Strategies

- * Warmup and cooldown systematically before and after every race.
- * Always check blocks to see settings are correct and confirm they are well anchored
- * Practice your blocks routine over and over until it is second nature
- * Avoid unnecessary activity at the line -- talking to opponents, big jumps, slow actions
- * Move without delay into the set position on the starter's command so as to not be on the rise should the gun be quick.
- * Train to take the start with the gun and do not try to guess the starter -- used varied command cadence in practice --and practice this regularly
- * Establish your own race pattern well before competing in practice or meets. Competition is not a good environment to learn technique.
- * Learn to race in all lanes. To the coach and athlete there can never be a bad lane. The mental approach to this one factor can mean victory or defeat before the gun is ever fired.
- * Learn to race your own race with your competition next to you or several lanes away.
- * On turns, left shoulder leans in slightly, right arm across midline. Run close to lane line.

Sprint Race Tactics/Strategies



Sprint Race Tactics/Strategies continued

- * Never treat preliminary rounds of competition lightly. Know what is needed to qualify to the next round.
- * Learn to handle race situations such as a too fast pace on the curve or the sudden burst of a competitor by you on your inside. When such occurrences take place stay calm and use your technique and strengths to run your race knowing that in 400m and 200m there is a long straight to still turn the race in your favor. (use discussion, visualization, etc.)
- * Run your own race knowing that your best performance will come only if you do what is best for you. Don't become caught up in the tactics of your opponent.
- * Spend time with videos -- analyze the world's best as well as yourself -- Professional videos, Youtube, Coach's Eye, Hudl

Sprint Race Tactic/Strategies

Race Phases



Sprint Race Tactics/Strategies continued -- Race Phases

Phases of the 400 meter dash from Coach Clyde Hart (coached Michael Johnson, Jeremy Wariner, Sanya Richards-Ross, and many All-Americans):

PUSH -- close to 100% in first 50; burn the turn

PACE -- settle into good rhythm and pace for goal time (150m); reach the 200 about 1 second slower than your best open 200 (2nd 200 2 seconds slower)

POSITION -- check other runners, make a judgment, begin to race (3rd 100+m)

POISE -- maintain rhythm and form, go for the finish line

(the athletes also use PRAY and/or PARADE for the final phase) :)

Phases of the 200 -- PUSH, PACE, POISE

Phases of the 100 -- PUSH, POISE

Sprint Race Finish Line



Sprint Race Finish Line

- * Maintain form through the poise phase. Focus on form and arm action.
- * To avoid tightening up, keep shoulders and neck relaxed.
- * RUN THROUGH the finish line. Know where the finish line is and always run through it for at least 4-5 meters!
- * Dipping at the line should be a measure which is rehearsed but only used in competition when absolutely needed. Two methods for the lean: on last step throw both arms back and lean hard, and “shrug” one shoulder into the line on the last step.

Sprinters/Hurdlers Training Ideas

Pre Season

1. 6 x 200 @ 32/36 pace with 90 seconds rest
2. 600, 400, 200, 600 with 3 min rest at 70%
3. 6 x 400 with 1 min rest (relaxed road run pace)
4. Circuits -- you can include jogging, med ball throws, jump rope, step ups, sit ups, push ups, plyos, leg lifts, planks, stings, box jumps, air squats, fast feet, abs, and stairs
5. Continuous 200's with a baton (6 to 8). Teams of 3, using 4 x 400 handoffs
6. Stadium stairs -- 2 laps jogging, 1 x double leg, 1 x rt leg, 1 x left leg, 2 more laps jogging
7. 1 x 400, 2 x 300, 2 x 200, 4 x 100 -- run 400 at road run pace then make each run progressively faster. The 100's should be a sprint
8. 6 x 150 hills
9. Wolf pack -- jog in a line and the last person has to sprint from back to front of line, any distance
10. Stride 100, jog 80, then walk 20 x 10
11. Hill workout -- 2-3 big hills, 4-6 smaller, steeper hills, 800 meter jog/cool down
12. 500, 400, 300, 200, with 90 sec. Rest. All at road run pace
13. 200, 300, 400, 500, 400, 300, 200 -- all at road run pace. Walk around track to start line after each
14. 6 x 60 on a recovery day -- athletes should work on speed/acceleration all season long!!!

Early Season

1. 300, 200, 100x2 @ 75% with 100 jog in between each run. 6 min. rest between sets
2. 6x200 @ 28/32 pace with 2 min. rest
3. 4x350 run first one at slow jog. Each one should be run faster than the one before. The last 350 should be a sprint.
4. Set up 300 hurdles. Start at starting line and run first 3 hurdles. Walk back to hurdle #2 and run 3 hurdles, then walk back to hurdle # 3 and run and run 3 hurdles and so on until you get to the finish line.
5. Run 150 @ 75%, do a very slow jog back 150 meters. Do this 8-10 times,
6. 300 + 100 x 3. 90 sec rest between the 300 and 100. 8 min rest between each set. Run the 300 at 85%, sprint the 100m.
7. 10 x 200 w/ 90 sec rest @ 70%
8. Speedwork some days, such as 5 x 60 or 6 x 50. Develop form and technique.

Note 1: Throughout training, keep the number of exercises small and concentrate on execution. Train athletes, not workers.

Note 2: Work on speed/acceleration from pre-season to the end! “I feel the need for speed!”

Mid Season

1. 3X (200/200) Run 200 w/o hurdles @ 28/32, rest 30 sec, sprint 200m over hurdles at 100% (Full recovery between runs)
2. 5x300 1st 300 (open 300 @ 75%), 2nd 300 (run over hurdles next to someone), 3rd 300 (run slow, working on form), 4th 300 (run over first 5 hurdles then run rest of 300 as an open run), 5th 300 (run open 300 then go over last 3 hurdles for speed),
3. Run 300m hurdles for speed with someone running without hurdles on the outside of you so you have to catch them (3 x fast w full recovery)
4. Run 6-8 x150m with 250m between each for recovery (6 for short sprinters, 8 for long sprinters)
5. 5 x 200m hurdles at 70%. After every 200m hurdles rest 60sec then sprint 100m with hurdles every 20m. 3min rest between each.
6. 400 - 4 min rest - 200 - 4 min rest - 100 - 4 min rest - 200 - 4 min rest - 400 All at 80%
7. 3 x 300m at 100% with 10 min rest between each run
8. 4x200 @ 28, 26, 24, 24 for men and 32, 30, 29, 29 for women with 90 sec rest.
9. 400, 1 min rest, 100 - 300, 100 - 200, 1 min rest, 100 The long should be run at 85% with 6-8 min rest after each set.
10. 100 break down - 100m+ walk back, 90m+ walk back, 80m+ walk back, 70m+ walk back, 60m+ walk back, 50m sprint. All at 100%
11. Decathlon runs - run 100m from middle of turn to middle of straight then turn and jog 80m across infield back towards the place you started your run. Walk the last 20m back to your starting pt then go again. Do 10 times

Late Season

1. 3x150 @ 100% with full recovery (walk one lap between each run)
2. Cutdowns 160 down to 100, walk half/jog half recovery
3. 5 x 200 w/ 3 minute recovery
4. 8 x 100 with full recovery for speed work
5. Continue to develop top speed with repeat 50's/60's
6. Use blocks/handoffs/jump runways/ finish work for some of the speedwork

Maintain quality in workouts but less quantity as you move into peaking phase. Rest days are essential, and mental work is extremely important.

Bibliography

Carmelita Jeter Slow Motion 2011 Video, uploaded to Youtube by MattBDept.

“Interview with Clyde Hart.” Speed Endurance: Success in Track and Field and Life. March 14, 2011.

Shelly Ann Fraser Price Slow Motion 2011 Video, up loaded to Youtube by MattyBDept.

100 m Usain Bolt Slow Motion Art of Sprinting Fastest Man, uploaded to Youtube by Simon Bartold, Oct. 30, 2013.

USATF Coaching Education, Level 2.



Thank you!!!

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