Training the 100m Athlete for the 100m Race

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• Long to Short
• Short to Long
• Slow to Fast
• Fast to Faster
• Fast to Fastest

DON’T TRAIN THE EVENT. INSTEAD, TRAIN THE ATHLETE FOR THE RACE AND THE DEMANDS OF THE RACE.

Methods of Training
My Preferred Method of Training

DEMANDS OF THE 100M RACE

- MECHANICS
- POWER
- EXPLOSION
- SPEED & SPEED ENDURANCE

9.90
Fast to Fastest
Do they know HOW to run fast?

- Force
- Power
- Horizontal vs. Vertical
- Stride Rate vs. Stride Length
### Physics + Preparation = Fast to Fastest

<table>
<thead>
<tr>
<th>FORCE</th>
<th>POWER</th>
</tr>
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<tbody>
<tr>
<td>Athlete should generate as much force as possible into the track as fast as possible. Mechanics will need to be great to achieve this.</td>
<td>Athlete should generate as much power as possible to move body weight down the track. Power to Weight ratio extremely important.</td>
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<tr>
<th>HORIZONTAL vs. VERTICAL</th>
<th>STRIDE RATE vs. STRIDE LENGTH</th>
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<td>On first movement, athlete should move horizontally down the track and less vertically as possible. Are their hips flat-lining or do they have a pulse?</td>
<td>Athlete must continuously work both to ensure balance. Both can be measured, should be measured, and recorded throughout the season.</td>
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100m Race
All Phases are NOT created equal

- Block Start/Clearance
- Acceleration
- Transition
- Max Velocity
- Deceleration
• The most important phase of the race
• Athlete needs to be as powerful as possible to generate forces needed to go from 0 velocity to highest velocity possible in shortest period of time
• The better the start, the better the acceleration
• Low to high heel recovery
Block Start
• Hips have to be in proper position to achieve velocity needed (Block start should have set this up)
• Front-side Mechanics start here (Block start should have set this up)
• Feet: low to high
• Distance and Acceleration as opposed to (Speed)
• Attack, Attack, Attack
Acceleration
Transition: Acceleration to Maximum Velocity

- Every athlete is different
- Every acceleration distance will vary
- When athlete has reached his/her maximum acceleration velocity; time to sprint
- Push to Pull & Push
Transition
• Hips should flat-line (level), or do they have a pulse (up and down)
• Knees should drive out and up, not just up (minimize vertical motion)
• Front-side Mechanics
• Attack the ground forcefully as fast as possible as opposed to “just forcefully”
• Stay tall, don’t collapse

Maximum Velocity
Maximum Velocity
• Unpreventable, however if every phase before this is executed properly, the amount of deceleration will be minimal
• Don’t slow down
• Hips tall, shoulders tall through the finish
• Always stay involved. Weight room should complement and mirror what we do on the track
• Track and measure Power-to-Weight Ratio throughout the season
• The goal should be to become as explosive and powerful as possible while adding as little mass as possible
• Quality over Quantity
• Know when your athletes are “fit and ready” and when it’s time to stop weight training
• Schedule planned recovery days from the weight room to give adaptation a chance
• Repetition, Repetition, Repetition
• The body will learn what you teach it, whether it’s correct or not (Make sure it’s correct)
• Highly underused and undervalued
• Ask yourself, does Physics apply here
• Don’t do drills just for the sake of doing drills (Have a purpose)
• Should apply to every aspect of training; Weight Room, Sprinting, Bounding, etc.
• Our tempo runs are used exclusively for mechanics, then conditioning
• A lot of time needed to measure and record Power, Force, Stride Rate, Stride Length, and Power-to-Weight Ratio, but it can and should be done
• When in doubt, Rest
• Often times, “Simple” is enough
• Always calculate, measure and record; be precise with quality workouts
• Take into account the central nervous system as well as the muscular system when training in order to avoid over-training