

A large, stylized red silhouette of a sprinter in mid-stride, positioned behind the text. The silhouette is centered and occupies most of the page's width and height.

# ***The 100 Meter Dash***

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Compendium**

# Basic Sprint Training Lingo and Terms

- Speed Development- Acceleration is developed first, followed by Maximum Velocity
- Speed Endurance- ability maintain near max velocity
- Lactate Tolerance- AKA Lactate Threshold; the ability to buffer the acid build up in muscle tissue due to high level physical activity (time & intensity dependent)
- Stride Length and Stride Frequency



# Defining the Event



- 100m dash relies heavily on Speed Development- initial explosion & acceleration, Max Velocity, somewhat speed endurance
- Usain Explains-<https://youtu.be/yLWejYWjANM>





# Acceleration Blocks



- Foot Placement 1.0

- Which foot goes in front?

- Thumb Test
- Arm Test
- Push Test

- Foot Placement 2.0

- Block Placement?

- Front peddle two from the start line
- Back peddle three from the start line
- Narrow or Wide Feet in the Blocks?



# Acceleration Block Clearance

- Having a routine into the blocks
  - Number of prerace starts and taking advantage of *Post Activation Potentiation*
  - Breathing Control (out and in blocks)
- Block Clearance





# Acceleration Drive Phase



- Push, PUsh, PUSH, **PUSH!**
  - Don't rush
  - Running away from the blocks
- March Madness Block Start Tournament
  - <http://elitetrack.com/march-madness-block-tournament/>



# Acceleration and Drive Phase Drills

- Arm Split from a Start position-  
<https://youtu.be/oqnBJ5dRDSs>
- Standing Long Jump w/weight vest-  
<https://youtu.be/K4cVBz8tUEE>
- Latif Hurdle Pushes-  
<https://youtu.be/OKMbj5GsdF8>
- Sled Pulls- <https://youtu.be/XGnrGHBRdWY>



# Transition Phase



- Progression
  - Not all at once
  - Eyes moving farther down the track
  - Heel Recovery getting higher each step
  - Sling shot
- Race Modeling
  - Cones for land marks
  - Once you are up your up







# Transition Phase Drills



- Standing Falling Start-  
<https://youtu.be/JdF8aRVoaPs>
- Bench Drop- <https://youtu.be/NTDEXyK9kG8>
- Bullet Belt Contrast runs-  
[https://youtu.be/sl53f\\_3Dbh8](https://youtu.be/sl53f_3Dbh8)
- Mid position Medicine Ball Toss-  
[https://youtu.be/B\\_Un1Rd3pJs](https://youtu.be/B_Un1Rd3pJs)



# Maximum Velocity



- Posture
  - Styles should be limited
  - Commonalities
    - Front Side Mechanics, Heel Recovery, and Dorsiflexion
- Stride Length vs. Stride Frequency
  - Plyometric Training, Cued runs, and Drills biomechanics
- Dynamic Stereotype
  - In and Outs, Over Speed Work.





# Drills for Maximum Velocity



- Cued intervals “A” Run-  
<https://youtu.be/hqk7hKYIXXs>
- Mini Hurdle Run-  
[https://youtu.be/a8CeJb8u\\_C4](https://youtu.be/a8CeJb8u_C4)
- Single Leg Hops-  
[https://youtu.be/5ltdE\\_vDhNs](https://youtu.be/5ltdE_vDhNs)
- Build, Float, Hit-  
<http://speedendurance.com/2014/03/25/acceleration-and-maximum-velocity/>

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# Speed and Special Endurance



- Speed Reserve
- Repeatable Performances
  - Preparing for the structures of competition
- Energy system development
  - Tolerance
- Special Considerations
  - Hamstring or Quadriceps Centric
    - A drill to help you evaluate <https://youtu.be/Qa9pRtr8sTw>
  - Training and Injury history



# Examples of Speed and Special Endurance Workouts



## Short to Long vs. Long to Short

<http://speedendurance.com/2015/12/14/long-to-short-or-short-to-long-comparing-contrasting-different-training-models/>

## Ladders

Lactacid: SpE Ladder Short  
1x60 at 95%+ [full]  
1x80 at 95%+ [full]  
1x100 at 95%+ [full]  
1x120 at 95%+ [full]

## Tempo

8x200 + After each exercise with run on track: 20xPushups, 16xCrab Kicks, 40xCrunches, 20xSideUps, 40xLunges, 80xA-Skip, 40xChinnies, 20xPushups

## Lactaid Stacking

1x150 Run @ 90% [45"]  
4x40 Run @ 90% [40", 60"]  
1x150 Run @ 90% [12']  
1x150 Run @ 90% [45"]  
4x40 Run @ 90% [40", 60"]



# How to Plan the Week?



## Short Sprinters 100/200 (no meet)

Monday- Acceleration and Maximum Velocity.

Tuesday- Tempo (longer interval)

Wednesday- Active Recovery, Visualization, Goal Setting

Thursday- Race Modeling Special Endurance

Friday- Tempo (short interval)

Saturday Speed Endurance I



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# Questions?



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    - USATF Level II Sprints, Hurdles, Relays, and Endurance
    - Emerging Elite Coach Olympic Training Center 2012
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