400 Meter Training

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You don’t take donkeys to the Kentucky Derby!

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Keys to Success for Seeking and Developing Speed

- Recruit speed from everywhere.
- Be excited about the opportunity to nurture talent.
- Present a winning attitude.
  - Be a efficient communicator
  - Willingness to learn
  - Every student athlete (SA) is different
- Stick to your guns and don’t change with the wind.
  - Know your environment, SA, and yourself

Considerations for Training

- Type of Athlete
- Level of Physical and Mental Maturation
- Resources Available
  - Strength Staff, Medical Staff, Supplementation
- Facilities
- Environment
- Expectations

The 400:
An Endurance Race or a Sprint?

- A sprint that maximizes the individual's endurance capabilities.

- Embrace two types of runners:
  - Speed
  - Endurance

Common Types of Training

- Tempo based training
  - heavy volume and varied intensities
- Anaerobic speed power based training

400 Race Model

- 1st 200 m = 200m PR (avg. top 5) + 1.5 sec.
- 2nd 200 m = 1st 200m + 2.0 sec.
- Example 1
  - 21.5, 21.4, 21.3, 21.2, 21.1 = 21.3 (avg.)
  - 21.3 + 1.5 = 22.8 (1st 200)
  - 22.8 + 2.0 = 24.8 (2nd 200)
  - 22.8 (1st 200) + 24.8 (2nd 200) = 47.6 (Est. 400)

Pace per 100 Meter Training Chart

- RON GRIGGS

Pace Per 100 meter training chart								
400 goal	avg. mps	70%	75%	80%	85%	90%	95%	100%
60	6.67	21.4	20.0	18.8	17.6	16.7	15.8	15.0
59	6.78	21.1	19.7	18.4	17.4	16.4	15.5	14.8
58	6.90	20.7	19.3	18.1	17.1	16.1	15.3	14.5
57	7.02	20.4	19.0	17.8	16.8	15.8	15.0	14.3
56	7.14	20.0	18.7	17.5	16.5	15.6	14.7	14.0
55	7.27	19.6	18.3	17.2	16.2	15.3	14.5	13.8
54	7.41	19.3	18.0	16.9	15.9	15.0	14.2	13.5
53	7.55	18.9	17.7	16.6	15.6	14.7	13.9	13.3
52	7.69	18.6	17.3	16.3	15.3	14.4	13.7	13.0
51	7.84	18.2	17.0	15.9	15.0	14.2	13.4	12.8
50	8.00	17.9	16.7	15.6	14.7	13.9	13.2	12.5
49	8.16	17.5	16.3	15.3	14.4	13.6	12.9	12.3
48	8.33	17.1	16.0	15.0	14.1	13.3	12.6	12.0
47	8.51	16.8	15.7	14.7	13.8	13.1	12.4	11.8
46	8.70	16.4	15.3	14.4	13.5	12.8	12.1	11.5
45	8.89	16.1	15.0	14.1	13.2	12.5	11.8	11.3
44	9.09	15.7	14.7	13.8	12.9	12.2	11.6	11.0

Race Strategy

- Push
- Drive
- Roll
- Ride Out!!!!

Types of 400 Workouts

Derived from Clyde Hart:

A. Speed Endurance:

1. Runner incurs a high oxygen debt.
2. Runs distances of 100-600 meters. Total distance is 2 ½ times racing distance.
3. Rest 5-10 minutes.

B. Tempo Endurance:

1. Doing the run slower helps runner learn tempo and rhythm .
2. Emphasis is on quantity, not quality.
3. Rest will be short.

Types of 400 Workouts Cont.

Derived from Clyde Hart:

C. Strength endurance:

- Activities that last longer than 10 seconds in duration with some type of resistance running – long hills, or stadium steps.

D. Endurance running:

- Pure aerobic running: runs of 15-45 minutes.

E. Power Speed:

- Speed of muscle contraction is emphasized: fewer than 10 seconds in duration.

F. Event running:

- Runs that teach runner how the 400 should be run.

G. Speed:

- Full speed runs of 30 to 150 meters. Rest is usually long.

H. Strength:

- General and specific strength development, traditional weightlifting, Polymeric used as needed

Off the Oval

- Fall lifting is on a four day rotation (Monday, Tuesday, Thursday, Friday)
- Spring lifting is on a three day rotation (Sunday, Tuesday, Thursday)
- Ice tank is done after every lift
- Stretch and hydrate following every workout

Fall Training/Off Season (Sep)

- Monday: timed efforts for distance on the field
- Tuesday: strides on the field (100 m)
- Wednesday: (rest/study/rehab)
- Thursday: timed run around campus and then sprints on field
- Friday: timed run around campus (1.5 – 2 miles)
- Saturday and Sunday: rest

Pre Season (Oct)

- Monday: timed efforts for distance on the field
- Tuesday: strides on the field; 10-20 x100 with jog back
- Wednesday: (rest/study/rehab)
- Thursday : timed run around campus and then sprints on field; 10-14 x 100
- Friday : 8 minute jog, 14-18 Hills @ 100-150 meters
- Saturday and Sunday : rest

Pre Season (Nov)

- Monday: accelerations (Stick Drills)
- Tuesday:

  10x 50, 100,150, 600, 300,150,100

  4x100,150,150, 300, 600, 4x100
- Wednesday: (rest/study/rehab)
- Thursday:

  4 x 150,100,50

  6 -9 x 150
- Friday: accelerations, block starts, relay work
- Saturday and Sunday: rest

Competition/Indoor

- Sunday: warm up, 600-800 meters technical sprints, weights
- Monday: rest, study, rehab
- Tuesday: 6-8 x 150
- Wednesday: block starts, 150,100,50
- Thursday: accelerations, relay work, 6 x 50
- Friday: travel, warm up
- Saturday: competition

Competition/Outdoor

- Sunday: warm up, 600-800 meters technical sprints, weights
- Monday: rest, study, rehab
- Tuesday: relay work, 3 x 150
- Wednesday: 4 x 100 (with baton) , 600 or 500, 150,100,50
- Thursday: 4 x 50 (3pt.) block starts, relay work
- Friday: travel, warm up
- Saturday: competition

Conclusion

- Know yourself and understand your athlete.
- Be confident in the training system and plan you design. Don’t be afraid innovate as the athlete matures.
- Clearly communicate the desired race model and practice how to execute it efficiently.