

400 Meter Training
and
Race Strategy

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Assistant Boys and Girls

I. Introduction to 400 meter training and race strategies

A. Introduction and coaching background

- 46 years of coaching track.
- 29 years as a head coach.
- Coached in every classification.
- Only missed 1 state track meet
- Currently starting my 8th year assistant at BHS.
- Event coach for sprints, hurdles, relays, and HJ.

B. Status of today's track athlete

- Committed or involved?
- AAU/MAYB basketball
- Club VB
- Dual sports
- Injuries

C. Coaches' role is vital.

- Energy
- Motivation
- Goal setting
- Knowledge

II. Workouts

A. 400 workouts (Clyde Hart models)

- Our 400 runners are undertrained rather than over trained.
- Hard day, recovery day.
- We do not train through meets. (See Appendix A)
- Thoughts on periodization in KS. Is true periodization possible in KS? Is it really possible to peak in such a short season?
 - You must have a plan: 1 year to 4 year. Cannot just “wing it”.
 - Is the season long enough to divide into 3 phases? We had 47 practices plus 9 meets.
 - There is too much interference in the season.

B. I am a “feel” coach. I am interested in successful workouts.

- Our philosophy is based on simplicity, flexibility and variability. The body adapts to a repeated stimulus. Change the volume, change the intensity, change the interval.
- Develop strength, speed and technique. (Hart’s 30-60-90 pre-workout model.
- We try to hit the three (3) energy systems needed for the 400.
 - Anaerobic ATP-CP
 - Anaerobic Lactate
 - Aerobic
- Speed endurance. High Oxygen debt, lactic acid build up, 100m to 600m. 1200m to 1600m total for the day.
- Tempo endurance. Aerobic work based on quantity with short rest. Different schools of thought of aerobic to anaerobic ratio for 400 runners. Shifting to 40% aerobic to 60% anaerobic. We may differ from others as we do not put our 400 runners on the road to gain aerobic conditioning. We feel that is counterproductive to being a good sprinter.
- Strength endurance. Power runs. Hills, sled pulls, resistance runs.
- Event runs. Race modeling. VIP. 200’s, 300’s, 350’s. Runners must be put in stressful runs. This could take about 40 seconds.
- Speed workouts. In and outs. Handoffs. Complete recovery. 1 minute recovery for every 10m run. Ex. 30m =3minutes rest.
- Core body workouts are crucial. Plyos, abs, glutes.
- Must develop speed reserve. (The difference between an athlete’s maximum speed and their maximum aerobic speed.)
- Stress technique daily.

III. 400 Race Strategy

A. Examples

- All out sprint?
- Negative split?
- Even pace?
- Other?

B. Our plan:

- 1st 5 steps drive hard for 7 seconds, (free energy) getting up to 95% and maintain for 1st curve (depending on individual).
- On back straight begin **cruise** phase with quick feet and stay tall. This may be counterintuitive to runners and some coaches. Hard to learn and hard to coach.
- At 200, reaccelerate.
- At 265, begin attack mode (depending on individual).
At 310 m to go, trust your conditioning and keep good technique.

C. USATF example:

Athlete A has a 200m best of 22.0

Athlete B has a 200m best of 22.5

Both athletes know they will have to run under 49.0 to win.

For male runners: 1st 200 +1.0-1.5 seconds

2nd 200, 1st 200 +1.0-1.5 seconds

Athlete A 1st 200-23.25, 2nd 200-24.5=47.75

Athlete B 1st 200-23.75, 2nd 200-25.0=48.75

How does athlete B beat athlete A? Does he go out and run A's pace? Here is the problem. If both go out at 23.25, A is running at 94.6% of his 200mPR, while B is running at 96.8%. A is not working as hard as B. Does 2% make a difference? All things equal, B can only hope for a 48.75, if he goes out too fast, he runs 49.73.

❖ At the State meet, this is magnified. B may have to run for 2nd place!

IV. The 4x400 relay

- A team within a team. I like to develop chemistry with only 4 to 5 runners.
- Overcoming “social loafing”
- Set specific goals for each leg, a meet goal, and a state meet goal.

V. Achieving State Meet success.

- Take care of your athletes. They have come too far to assume they are ready to take care of themselves.
- This starts the week of state or before.
- My duties at state meet. Sun, Rest, Hydrate, Uniform, Warm up, Cool down.

Questions?

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Or call 785-979-8083

Appendix B

Selected examples of our 400 m workouts

1. Aerobic. Our aerobic conditioning basically comes from our recovery days on Tuesdays.
 - 6 to 8 x 200m at 75%. Walk across field.
 - 3 to 6 laps of 150 @ 75%. Walk to 200.
2. Speed Endurance.
 - 10x100
 - 6x150
 - 5x200
 - 3x 265
 - Ladder. 110-150-300-150-110
 - 6x150 snowball. 50@ 80%, 50@ 85%, 50@ 90%
3. Strength endurance
 - Hills x10 for 100m
 - Sled pulls
 - Bungee resistance/bungee assistance runs
 - Grocery cart runs
4. Event runs. Race modeling
 - 200's
 - 300's
 - 450's.
5. Speed runs.
 - 30-30-30 of ins and outs
 - Speed mat. Could use cones or chalk on the track.
 - Mat is 7 meters long. There are 11 lines on the mat. 1st line is 20cm and they increase by 10 cm for every line.