

Dominate the “8”



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Overview



- Necessary Physiological Adaptations
- Implementing The Plan – The 3 E's
- Racing Tactics



800m



A true “hybrid” event

- ✦ Speed vs. distance
- ✦ Anaerobic vs. Aerobic Requirement: ~60% - 40%

3 types of 800m runners:

- ✦ 400/800
- ✦ 800/1600
- ✦ 1600 & up (commonly used for a relay leg)

How Do You Prevent this from Happening?



The *Wider* the **Base**, The *Higher* the **Peak**





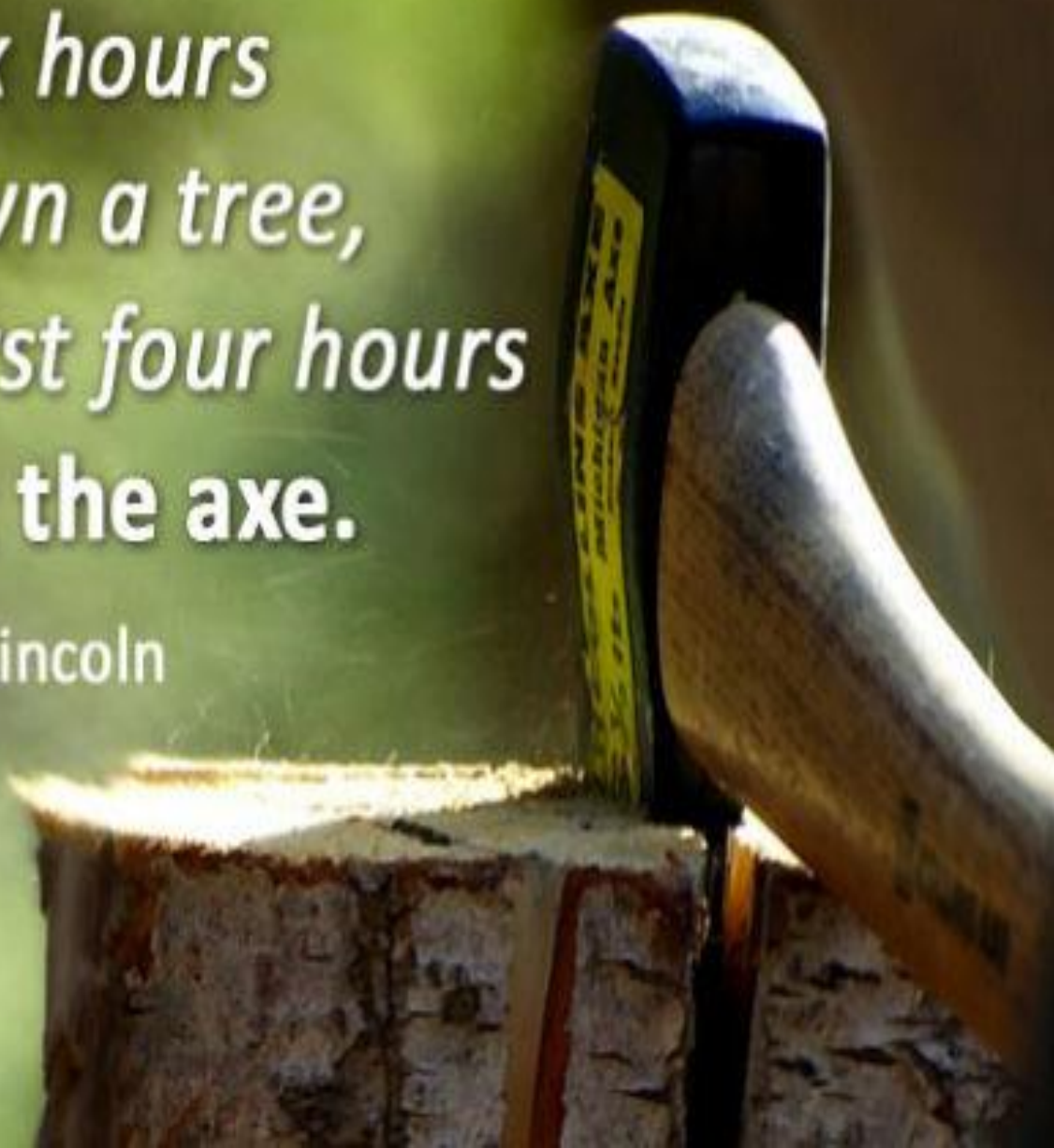
Peak
Performance

Event-specific
Training

Aerobic & Muscular Base

*If I had six hours
to chop down a tree,
I'd spend the first four hours
sharpening the axe.*

~ Abraham Lincoln



Physiological Adaptations



Factors that positively affect racing performance:

- Increasing lactic acid (H^+) removal
- Increasing VO_{2max}
- Increasing peak lactate tolerance
- Improving running economy
- Improving top (400m) speed

Lactic Acid (LA) Removal



Major Benefit in improving lactate threshold(LT) pace:

- Can hold faster than LT pace for longer period due to slower accumulation of LA (H^+) in the blood

Lactic Acid Removal

✦ **Sample workouts** (*pace is most important*)

- Repeat 12-20min at or slightly faster than LT pace
 - 2 x 12min or 1 x 20min/recovery/ 1 x 12min
- Fartlek
 - 3-8mile run – 3k pace surges
- *Jack Daniel's Cruise Intervals
- Sustained Runs – 30-60min-15sec per mile slower than LT Pace

**denotes - 400's for 400/800m runners*

Improving Max VO2



2 Major Benefits

- Translates to quicker pace at VO2max
- Can hold faster than VO2 max pace longer

Improving Max VO2



Sample Workouts

4-8 Runner

- 2-3min are ideal
- 2 x 3-4 x 600m w/ 45 sec rest / 5 min b/w sets
- 2 x 5 x 400m w/ 45 sec rest / 3 min b/w sets

8-16 Runner

- 1000m-1600m for boys / 800-1200m for girls

Increase Peak Lactic Acid Tolerance



Major Benefit

- Allows the athlete to hold near-max 400m speed for longer period



Increase Peak Lactic Acid Tolerance



Sample Workouts

- 30 sec to 2 min repeats at 800/mile pace or better
 - ✦ Short Rest – Goal is to keep LA elevated as long as possible
 - 3 x 3 x 300m – 30-45 sec rest / 6 min b/w sets
 - ✦ Long Rest – Goal is to repeatedly spike LA to peak levels
 - 2 x 400m
 - 2 x 300m
 - 2 x 200m

Improving Running Economy



Major Benefit

- Getting “more bang for your buck!”



Improving Running Economy



Sample Workouts

- High volume of strides
 - ✦ 3 x 10 x 100m (3k-5k pace) with jog back recoveries
- 200-400m repeats – short recovery
- Biomechanical adjustments
 - ✦ Drills & strength work
- Cadence Counting

Improving Top 400m Speed



Sample Workouts

- Flyin' 30m-60m max speed work, 3min recovery
- Short Hill Repeats



Implementing the Plan: 800m Training Percentage



Preseason	Late Season
Speed 10-15%	Speed 40%
Anaerobic Endurance 25-30%	Anaerobic Endurance 30%
Aerobic Endurance 60%	Aerobic Endurance 30%

Standard Questions (To Ask Yourself)



Q: How many weeks do I have before our peak date(s)?

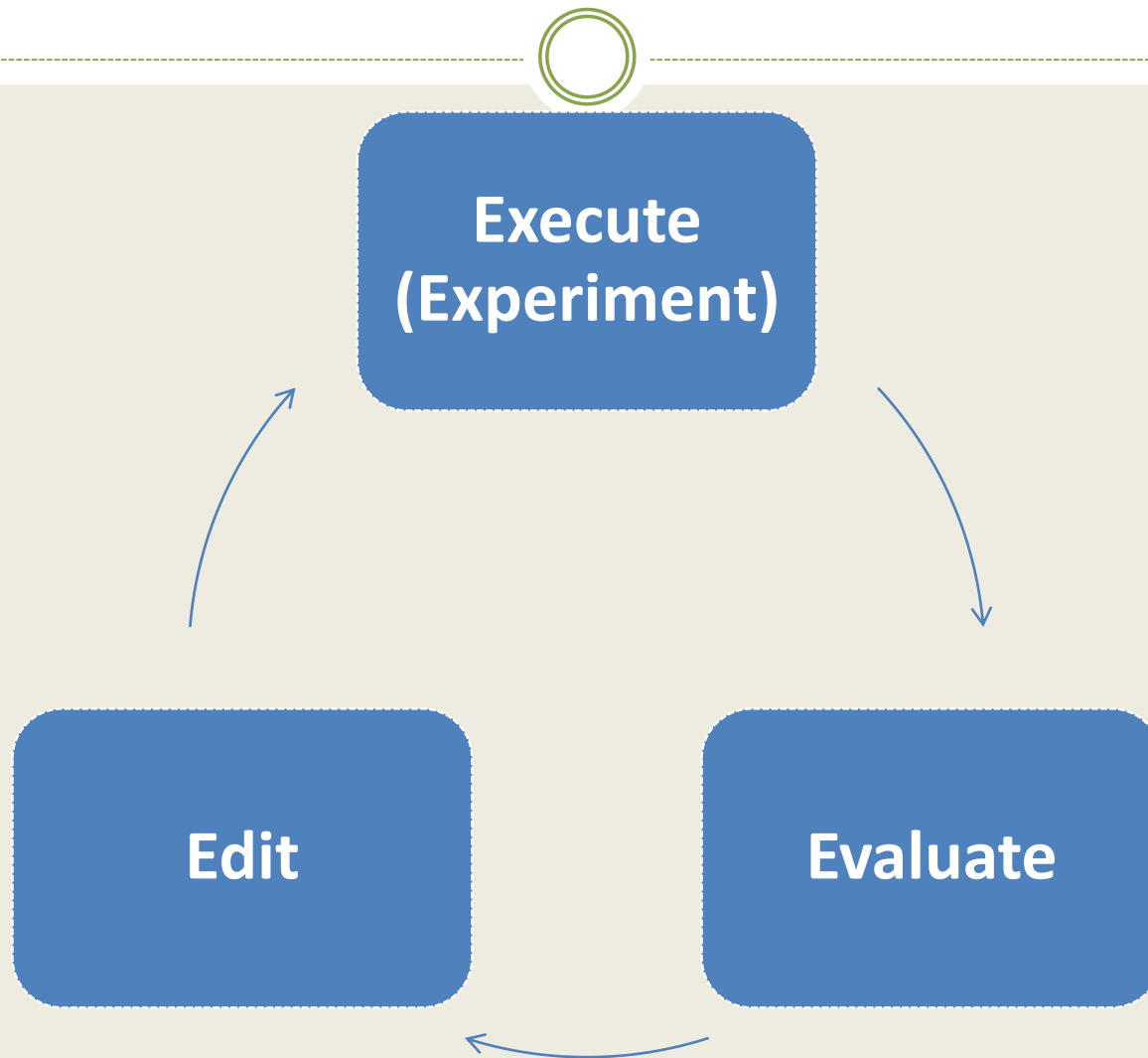
Work backwards!!!

Q: What energy systems will I focus on developing...and/or have the time to develop?

Q: How will I tailor the training regimen to make it suitable for each of my runners?

Q: What's the athlete's injury profile?

Implementing The Plan: The 3 E's



Execute



- Conducting the workout
 - Progressive
 - Timing
 - How you put the puzzle together is critical?



Evaluating

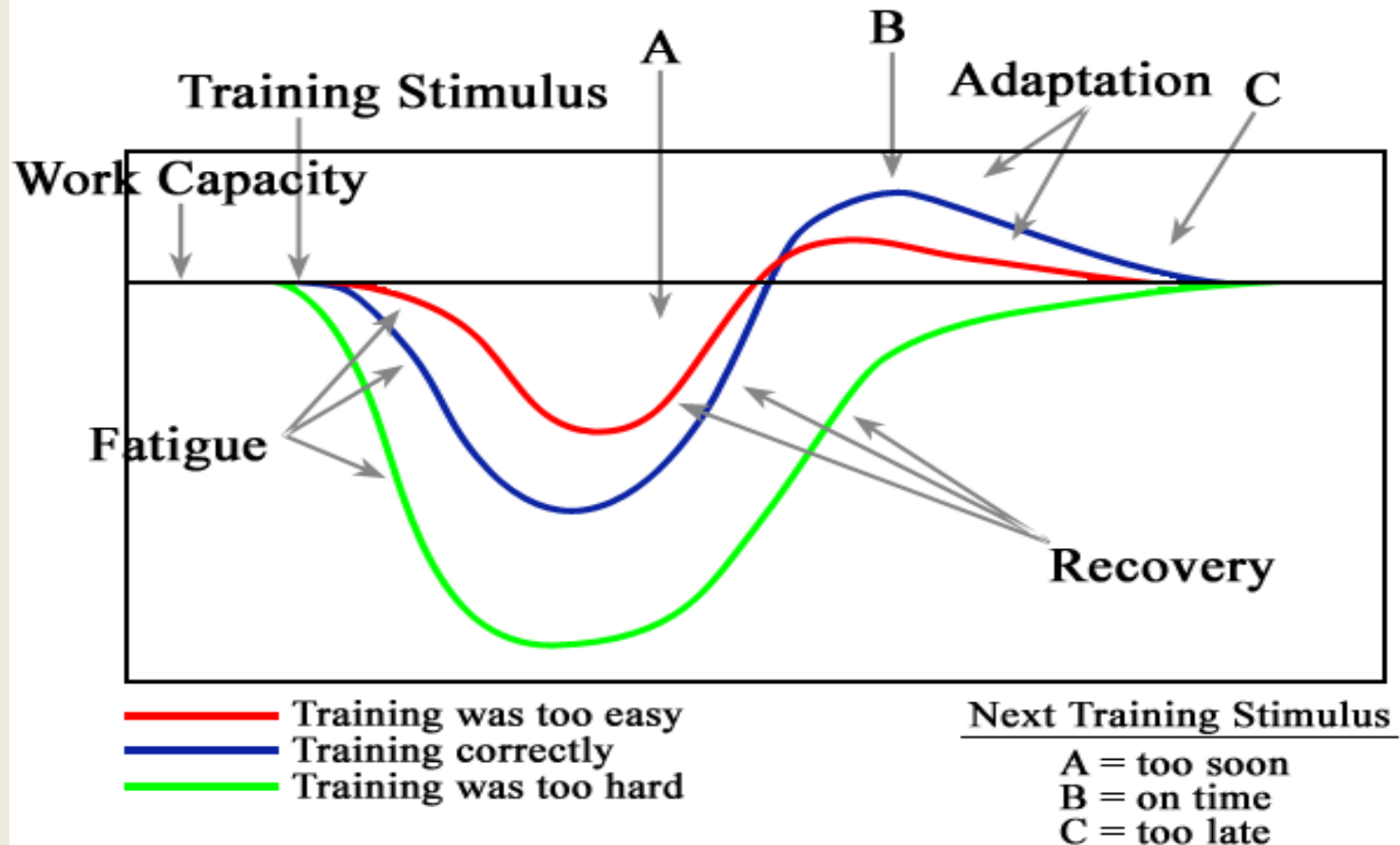


- As you put the sequence of workouts together, you have to assess each step
- Knowing your athletes
 - Law of Connection
 - ✦ *Athletes don't care how much you know until they know how much you care –**John Maxwell***
 - Law of Intuition
 - ✦ Questions to ask yourself
 - How's my athletes' physical state? Recovery? Injuries?
 - How's my athletes' emotional tank?

Model of Super-Compensation



Yakovlev's Model



Edit



- Make necessary adjustments to maximize workout, microcycle, macrocycle, season, and most of all—their running career.

“Play chess not checkers”



Pre-Competition Phase

Aerobic Base Work



- Easy, Moderate, Long Runs
- Fartlek sessions from 15-30min total
- LT Runs or Cruise Intervals
- Stepdowns (4-6 x 800m – ~10 to 15 secs faster than the one before)
- Mild VO2 Max Workouts

Aerobic Strength Work

- ✦ Fartlek
- ✦ Modified Lydiard Circuits

Moderately challenging LA workouts

Low-Impact Plyos

Hill Repeats

Strength Work: Core, Weights, Mini-Bands, or Body Weight Circuits

Sample Pre-Competitive Week



- Mon CP/Speed Work
Fartlek 20-30 min
- Tues *Easy Run & Biomechanical Work
- Wed Stepdown Run (time or distance)
- Thurs *Low-Impact Plyos followed with easy run
- Fri Tempo Run
- Sat Hill repeats, hilly run, or Lydiard Circuit
- Sun Rest or easy run

** - Cadence Counting*

Core work 5-6 days -- lifting and/or circuits 2-3 days in week!

Competitive Phase



- CP Speed Work
- Lactic Acid (LA) Workouts
- Pacing Workouts (@ Goal Pace)
- Speed-Endurance
- *Aerobic (Easy/Recovery Runs)
- Max VO₂ (800/1600m runners)...less of this for 400/800m runners
- Threshold (late competitive phase or when needed)
- Core/Strength exercises

**critical in clearing lactic acid (H⁺) remnants...increases blood flow to peripheral tissues*

Speeds healing to micro-cellular tears and mitochondria/capillary damage

Sample Competitive Week



- **Mon** CP/Speed Work
Tempo Run
- **Tues** L.A. Workout
- **Wed** Easy Run / Biomechanical Work
- **Thurs** Max VO2 or Speed Endurance (long repeats)
- **Fri** Easy Run
- **Sat** Time Trial, Low Key Meet, or Tempo Run
- **Sun** Rest

Core work 5-6 days -- lifting and/or circuits 2-3 days in week!

Sample Competitive Week w/ Competitive Meet



- **Mon** CP/Speed Work
Tempo Run
- **Tues** L.A. Workout
- **Wed** Easy Run/Biomechanical
- **Thurs** *Pacing Workouts...and positioning
- **Fri** Easy Run
- **Sat** Competitive Meet (*common to run off events early*)
- **Sun** Rest



****Work on racing tactics***

Core work 5-6 days -- lifting and/or circuits 2-3 days in week!

Signature Workouts

- ◆ 4x(4x200) @ 800m pace w/ 90 sec rest (5 min. b/w sets)
- ◆ Broken 800's- 600 fast/200 jog/200 fast 300 fast - 3 min. recovery, then 4-6 200m w/ 1:1 reco
- ◆ Goal Workout: Fast 300 - 3 min. recovery, then 2-3x400m w/ 1:1.5 – 1:2 recovery @ 800m pace
- ◆ 2x(500m/400m/300m/200m) w/ matching distance as recovery b/w reps & 10min b/w sets @ 800m pace
- ◆ 3-4 x 1000m or 1200m @ least 95% of Max VO2



End of Workout

- ◆ Sprints:

 - ❖ 60's, 80's, 100's, 150's

- ◆ Fast and relaxed or build-up 300m

- ◆ Barefoot Drills

- ◆ Band Drills



Band Drills











Predicting 800m Time (Advanced Runner)

Prediction assumes an aerobic base

– Take average best three (3) 400m

✦ Multiple 10% times average best

✦ 55 sec average best $\times 10\% = 5.5$

✦ 1st lap speed = 55 sec + 5.5 = 60.5

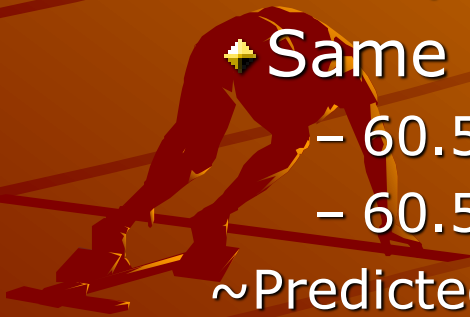
✦ Same process for 2nd lap

– $60.5 \times 10\% = 6$ sec

– $60.5 + 6 = 66.5$

~ Predicted Time = $60.5 + 66.5 = 2:07$

Note: typically over 54, formula may be slightly distorted,
but still relatively accurate



ACHIEVING OPTIMAL PERFORMANCES

- ◆ Finding the race in practice
- ◆ Training through early meets
- ◆ Peak Meets (very selective)
- ◆ Over/Under Theory
- ◆ Mental Toughness



Conclusion

- ◆ Advanced level runners must train and adapt to velocities requiring workouts that produce and force clearance of high amounts of LA (H^+)
- ◆ However, plan must be balanced with turnover (CP) work as well as aerobic work!



Your Job



“Champions Are Made, Not Born”



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