Developing Middle Distance Runners

The Blank Slate Method

Contents

- Athlete Profiling
- Training Theory
- Racing Strategy

Profiling New 800m Runners

- Type I – "The Long Sprinter"
  - 800m / 400m Type
- Type II – "The Speedy Distance Runner"
  - 800m / 1500m Type
  - -1500/3k Type (utilized for relays)
- Red Flags
  - 200m > 1500m
  - 3k/5k > 400m
    - IAAF Scoring Tables
    - One Up / One Down Rule

Profiling Good 800m Runners

- Type I – The 1500m is your secondary event
- Type II – The 1500m is NOT your secondary event … yet.

800 Meters (Men)

1	Sharp, Andrew	SR-4	Greenville	1:49.79	2018 Billy Hayes Invitational	May 4, 2018
2	Papoulis, George	SO-2	UMass Dartmouth	1:50.03	NEICAAA Outdoor Track & Field Championships	May 11, 2018
3	Hernandez, Jeremy	SR-4	Ramapo	1:50.23	AARTFC Outdoor Track & Field Championships	May 16, 2018
4	Molinaro, Matt	SR-4	Ohio Northern	1:50.28	39th Sun Angel Classic	April 5, 2018
5	Floyd, Carter	FR-1	Pomona-Pitzer	1:50.81	2018 Redlands Last Chance Qualifier	May 16, 2018
6	Cook-Gallardo, Donson	SR-4	Carleton	1:50.83	2018 Drake Relays presented by Hy-Vee	April 25, 2018
7	Sogaard, Kristian	JR-3	Amherst	1:50.95	NESCAC Outdoor Championships 2018	April 28, 2018
8	LaFleche, Kevin	SO-2	Williams	1:51.10	NESCAC Outdoor Championships 2018	April 28, 2018
9	Monahan, Cullen	JR-3	Christopher Newport	1:51.13	New Captains Classic & Combined Events	April 20, 2018
10	Decker, John	SR-4	Babson	1:51.14	Beach Invitational	April 20, 2018
11	Hinz, Sam	JR-3	Wis.-La Crosse	1:51.16	Eagle Open at UW-La Crosse	May 13, 2018
12	Iddriss, Iddriss	SO-2	Stevenson	1:51.27	Swarthmore Final Qualifier Meet	May 14, 2018
13	Voelz, Samuel	FR-1	DePauw	1:51.34	NCC Gregory Final Qualifier	May 16, 2018
14	Mulliken, James	SR-4	Middlebury	1:51.35	NESCAC Outdoor Championships 2018	April 28, 2018
15	Cargile, Tucker	FR-1	Redlands	1:51.44	2018 Redlands Last Chance Qualifier	May 16, 2018
15	Neville, Nick	JR-3	Rowan	1:51.44	Swarthmore Final Qualifier Meet	May 14, 2018
17	Lynch, Liam	JR-3	Haverford	1:51.50	Swarthmore Final Qualifier Meet	May 14, 2018
18	Roberts, Casey	JR-3	Wartburg	1:51.60	2018 Drake Relays presented by Hy-Vee	April 25, 2018
19	Hill, Nathan	SO-2	Middlebury	1:51.63	NESCAC Outdoor Championships 2018	April 28, 2018
20	Faulkner, Gillan	JR-3	SUNY Geneseo	1:51.65	Swarthmore Final Qualifier Meet	May 14, 2018
21	Hoyle, Zachariah	FR-1	Southern Maine	1:51.68	MIT Division III Final Qualifying Meet	May 17, 2018
22	Potts, Nathan	SR-4	Greenville	1:51.70	2018 Billy Hayes Invitational	May 4, 2018
23	Marton, Grant	JR-3	Carroll	1:51.80	NCC Gregory Final Qualifier	May 16, 2018
24	Donahue, Conor	SR-4	Bowdoin	1:51.89	NEICAAA Outdoor Track & Field Championships	May 11, 2018
25	Scullin, Nicholas	SR-4	Lebanon Valley	1:51.90	Swarthmore Final Qualifier Meet	May 14, 2018
26	Jacobs, Alvin	SO-2	Piedmont	1:51.93	Tennessee Challenge	May 5, 2018

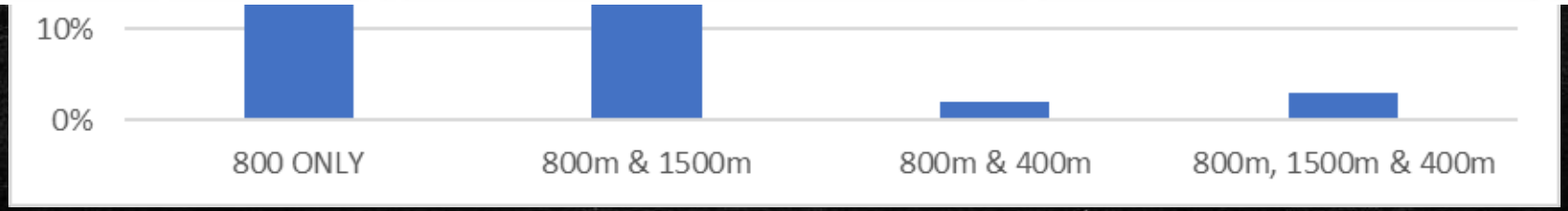
Alvin Jacobs

- 1:57.98 – SR, Lanier High School (52nd in Georgia)
  - 53.15 (400m)
  - 4:43.43 (1600m)
  - No cross country
- 1:55.03 – FR, Piedmont College
  - 50.63 (400m)
  - No 1500m/Mile
  - No cross country
  - Trained with me 2-3 days per week
- 1:51.92 – SO, Piedmont College
  - 49.92 (400m)
  - 4:08.00 (1500m)
  - 30:27 (8k xc) *only raced 3x
- TBA – JR, Piedmont College
  - 28:21 (8k xc)
  - 25-30 mpw

	200m	400m	600m	**800m**	1,000m	1500m	Mile
974	21.65	48.26	1:19.48	**1:51.97**	2:24.76	3:50.22	4:08.41

2018 NCAA 800m Top-20

Event	Energy Distribution	
	Anaerobic	Aerobic
400	57%	43%
800	40%	60%
1500	16%	84%
5000	12%	88%



Distance vs. Duration

Training Theory

- Aerobic Development
  - O_2 Delivery
    - RBC Mass
    - Mitochondrial Density
  - Enzyme Production
  - Fuel Utilization

- VO_2max Development
  - Higher maximal O_2 consumption
    - a-v O_2 Difference x Cardiac Output (HR x SV)
  - vVO_2max = 10 minute time trial

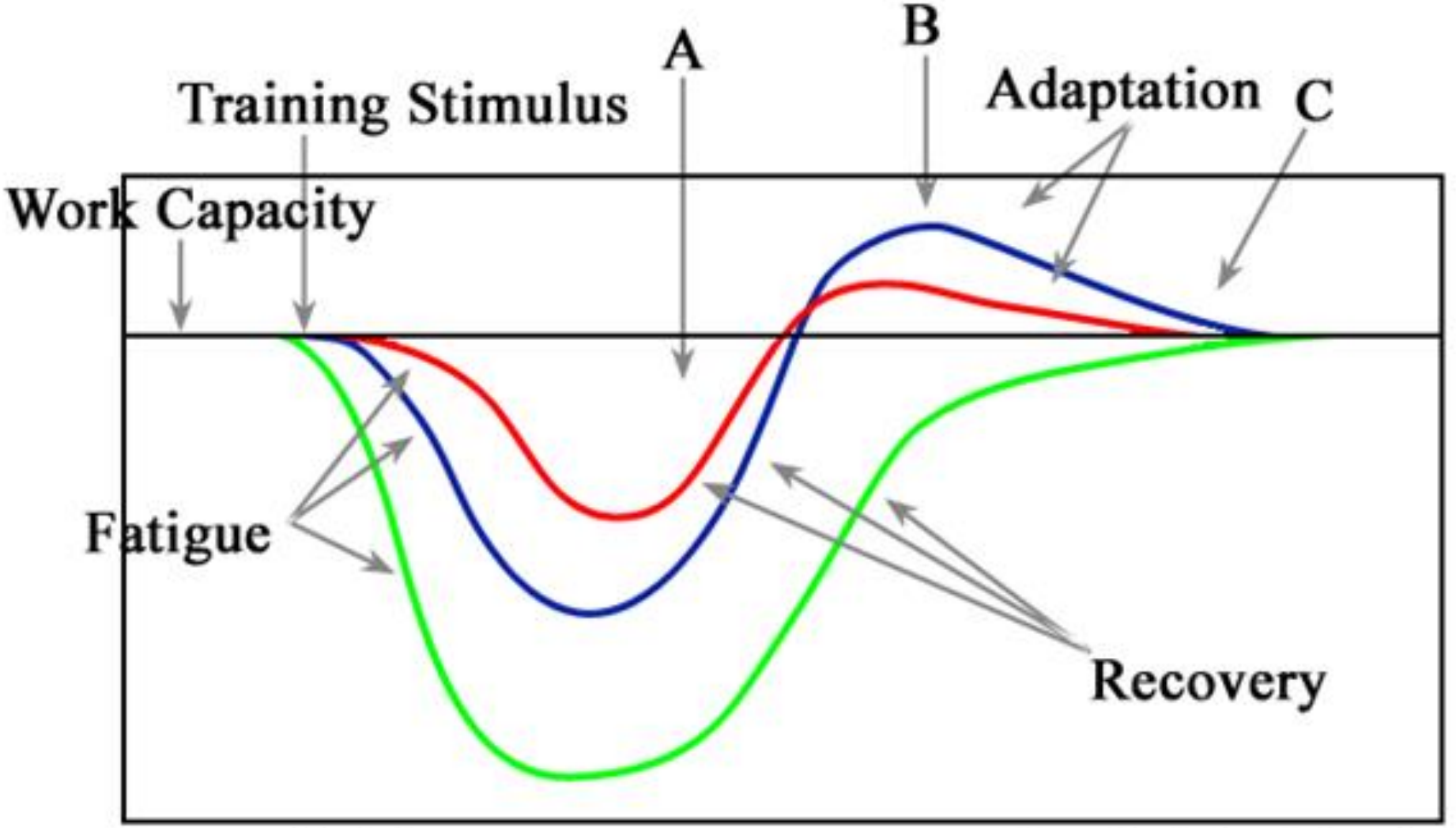
**800m is run at ~120% of VO_2max*

- Lactate Threshold Development
  - Higher percentage of VO_2max
  - Typically 50-80% of VO_2max

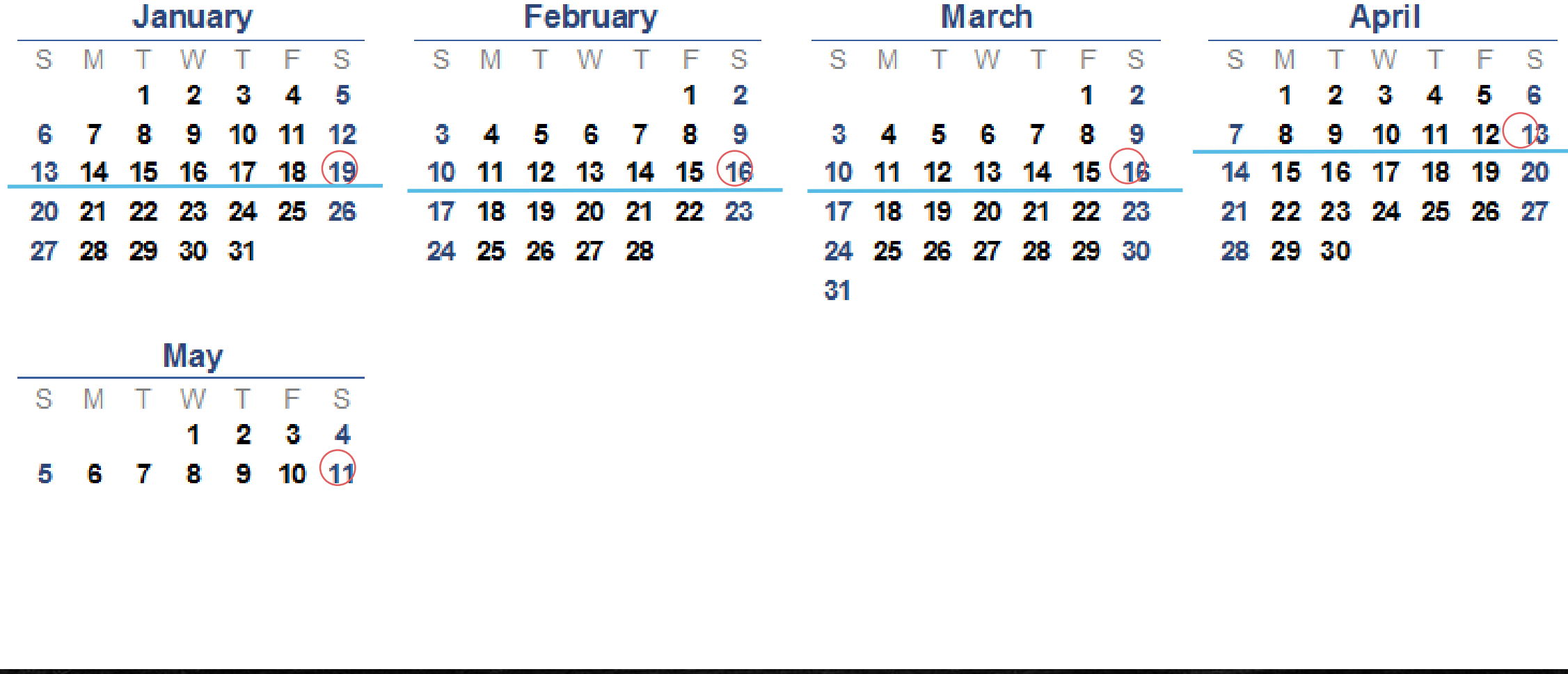
- Running Economy

- Outside Factors

Yakovlev's Model



Periodization



General Guidelines

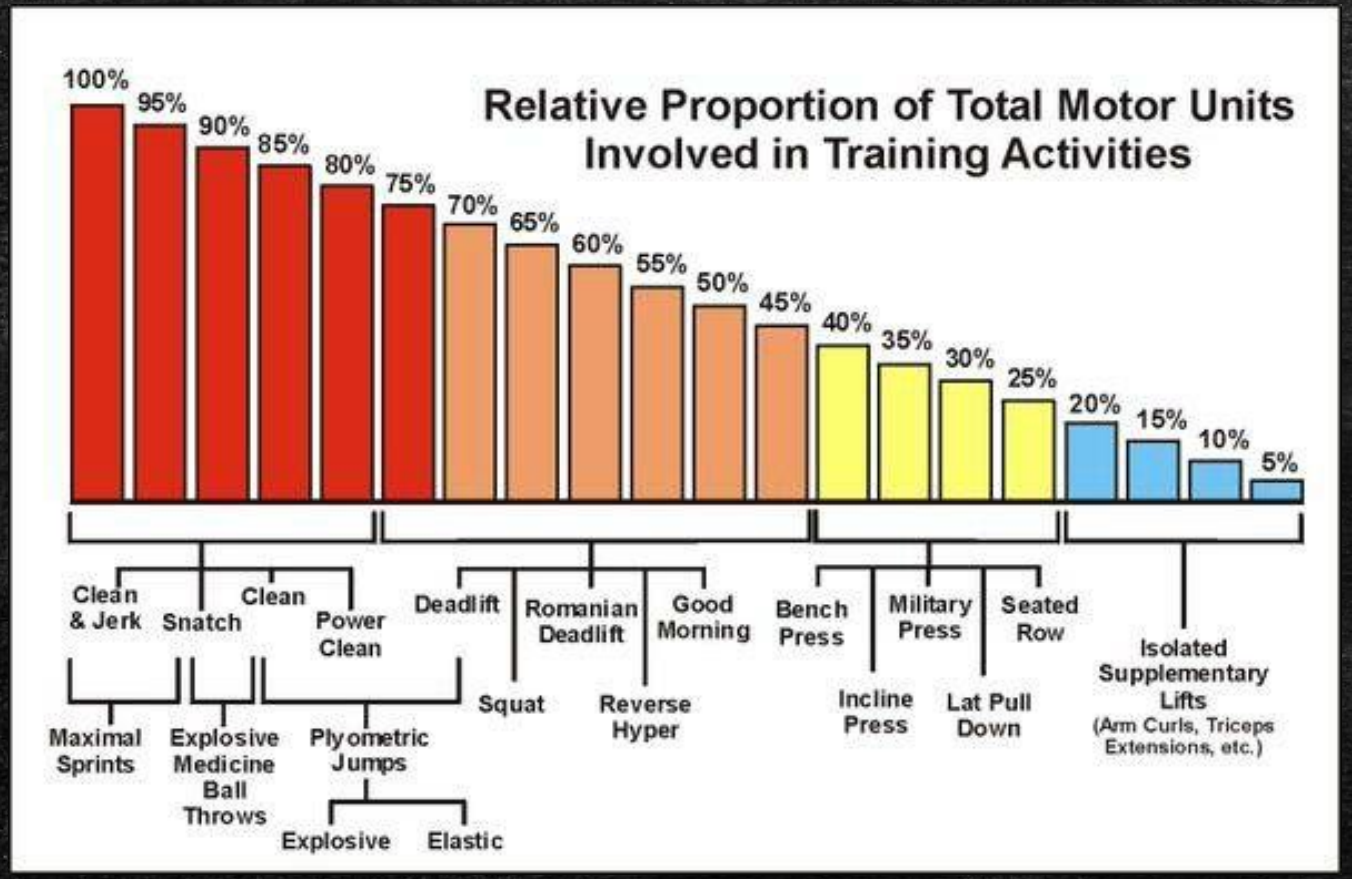
- General to Specific
- Simple to Complex
- Volume to Intensity
  - (Aerobic to Anaerobic)
- 25% Long Run
- Be patient/Check your ego
  - "Play chess, not checkers"

LIFTING

Hormone	Stimulant for Release	Target Tissue	Response
Epinephrine	Moderate to intense exercise, stress, hypotension	Skeletal muscle	↑ Glycogenolysis (breakdown of glycogen), vasoconstriction
Norepinephrine	Moderate to intense exercise, hypoglycemia	Adipose tissue, liver	↑ lipolysis (breakdown of fat), ↑ heart rate, ↑ glycogenolysis
Growth Hormone (GH)	Exercise, hypoglycemia	Skeletal tissue, bone, adipose tissue, liver	Stimulation of growth, FFA mobilization, ↑ gluconeogenesis, ↓ glucose uptake
Testosterone	↑ FSH, ↑ LH, exercise (?), stress	Skeletal muscle, bone	Protein synthesis, sperm production, sex drive
Estrogen	↑ FSH, ↑ LH, light to moderate exercise	Skeletal muscle, adipose tissue	Inhibition of glucose uptake, fat deposition
Cortisol	↑ ACTH, intense prolonged exercise	Skeletal muscle, adipose tissue, liver	↑ Gluconeogenesis, ↑ protein synthesis, ↓ glucose uptake
Insulin-like growth factor (IGF-1)	↑ Growth hormone	Almost all cells	Stimulation of growth

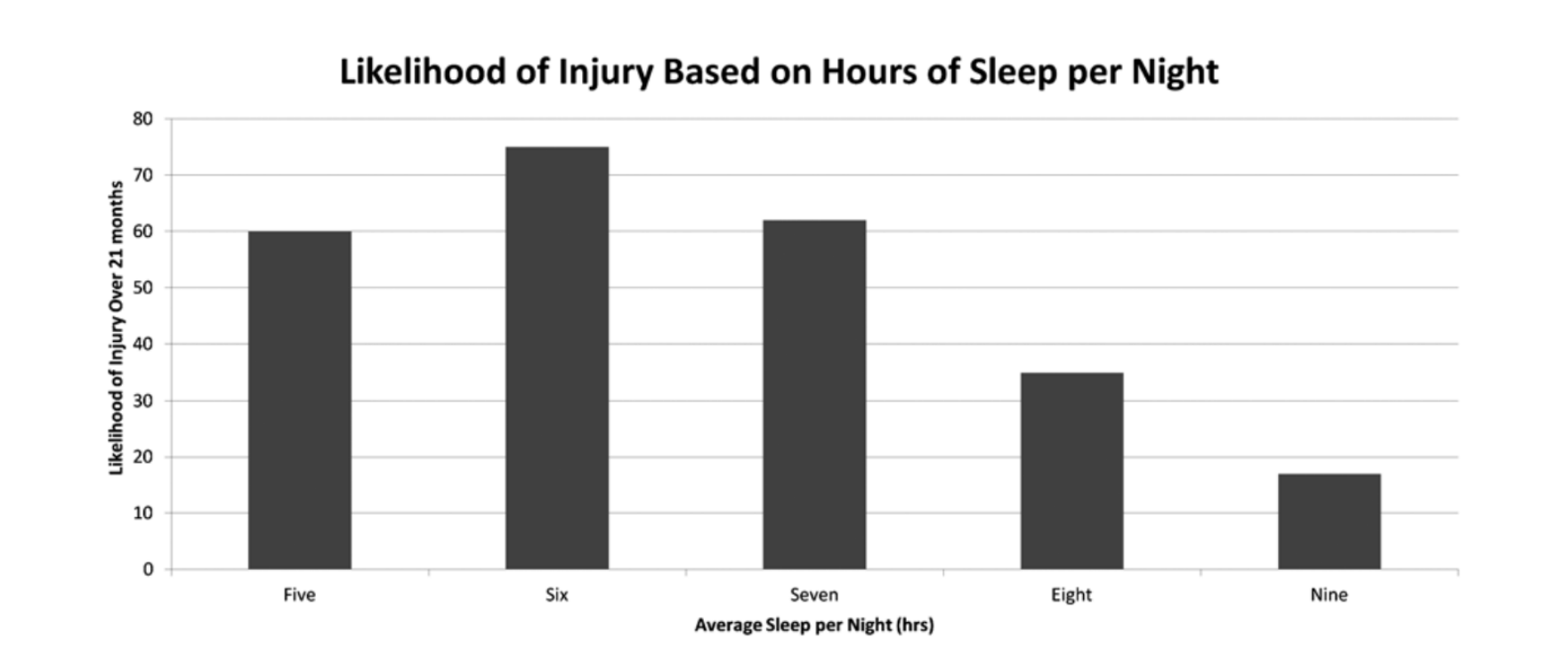
Hormone Response
Injury Prevention
Running Economy
Force Production

MAX VELOCITY



- NO LACTATE BYPRODUCT
- IMPROVED RUNNING ECONOMY

SLEEP

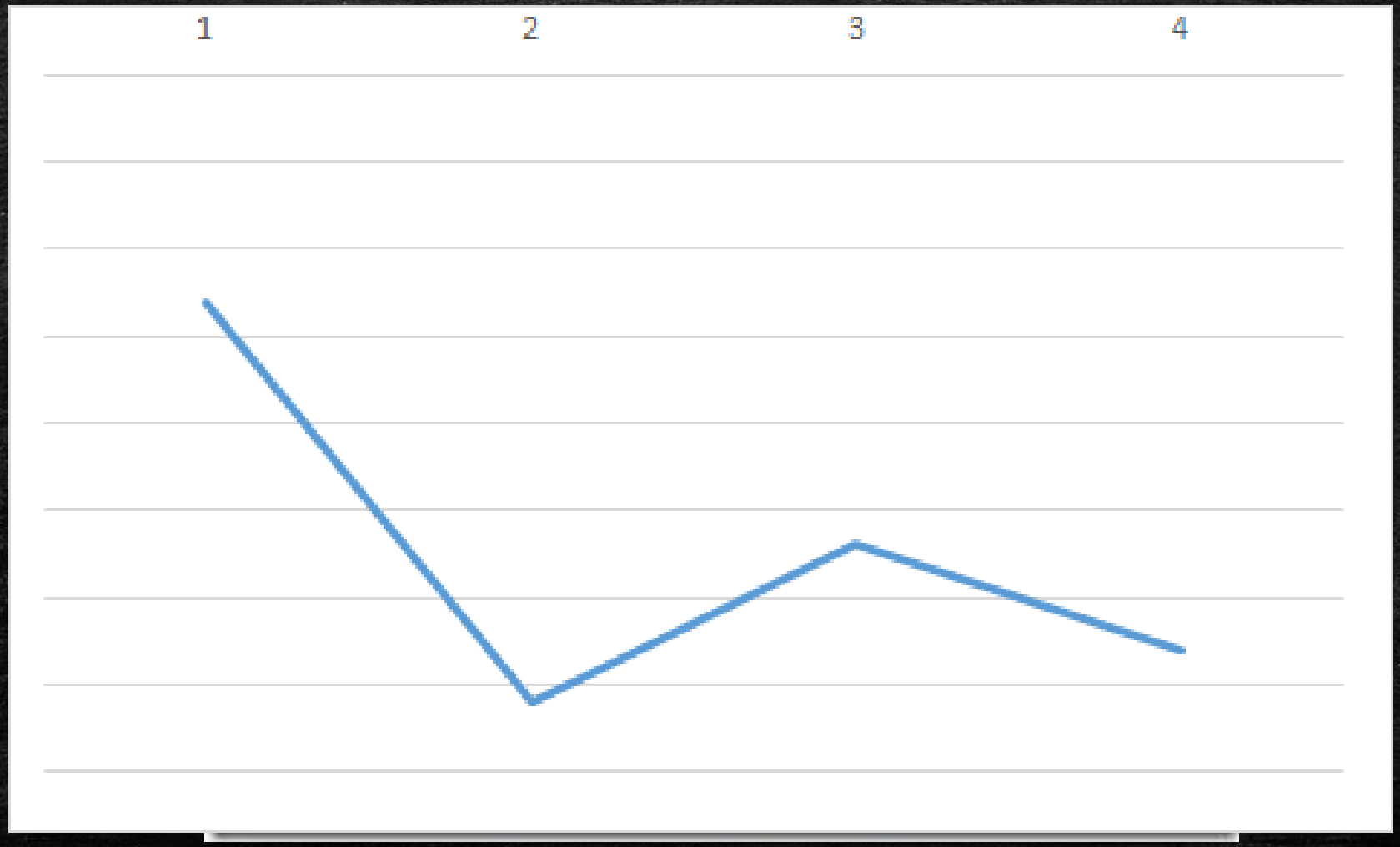


Remember Yakovlev

DOWNLOAD

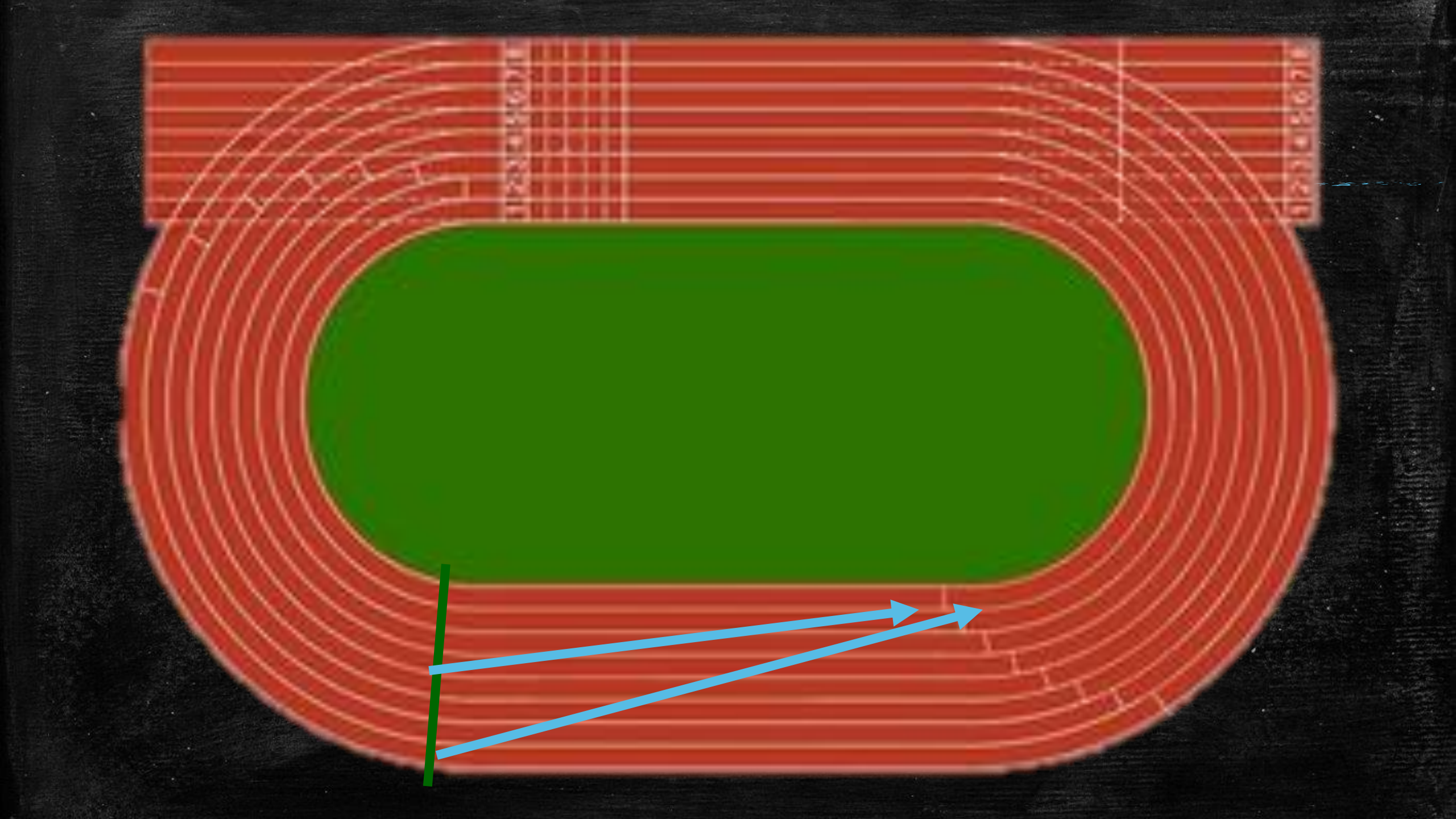
- MyFitnessPal App
  - 1 day diet tracker
- McRun App
  - VVO2max Calculator
- MultiStop
  - Stopwatch app

Racing Strategy



Four C's of Racing 800 meters

- Create Position
  - Sprint Start vs. Fast Start
  - The Break Line (next slide)
- Cover Moves
  - One Chance at the Lead
  - Average Position of NCAA Champion
    - 400m
      - 5.0 MEN
      - 1.75 WOMEN
    - 600m
      - 4.166 MEN
      - 1.50 WOMEN
    - 400m Leader & 600m Leader are almost always the same
    - Very few men and no women won from beyond 5th at 600m
    - Front Running does not work for men, but can work for women



Four C's of Racing 800 meters

- Challenge for Position
  - "Hit them when they can't hit you back"
  - Half the race is on the curve
    - Lane 2 x 1 curve = 0.76s
- Close the Deal
  - Somebody will break
- (Congratulate & Celebrate)

Overview

- Put the right athletes in the 800m
- Adopt the "Orphan Event"
- Create a well-designed training model that covers all limiting factors appropriately
- Implement race tactics specific to the event

MINI CLINICS

TRACK & FIELD

SPRINTS JAN 25-26
REGISTER BY: JANUARY 18

JUMPS FEB 15-16
REGISTER BY: FEBRUARY 8

THROWS JAN 25-26
REGISTER BY: JANUARY 18

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