Training Methods and Workouts

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Some Basic Laws of Coaching

Treat each runner as an individual

Always find positive comments to say

Everyone has good days and bad days

Do not train when injured or sick

Have intermediate and long-range goals

Encourage good food and sleep

There are no "fluke" good performances

Training should always be rewarding

Be available to your runners

Consistency is the key to success

Most mistakes are made early in a race

Concentrate on the task at hand

When you run together, run together

Different people progress differently

Rest is part of, not avoiding, training

Care about your athletes first as peopl

Know the purpose of every workout

Some Considerations

1 No-one knows it all

2 Everyone is different

3 What is a coach's job ?

4 Athletes are people

5 Is training a waste of time?

6 Achieve basic fitness

8 Test when fit

7 Coaches & Scientists

10 Focus on the task

9 Avoid injury

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How Do We Coach ?

- ## The surviving-egg theory?

- ## What my coach did to me?

- ## What do the champions do?

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A Week in High School 1964

Sun 10 mile run in 65 minutes 16k

-- 5 miles each morning, then 2nd session-- Q

Mon 2mile-9:55, 2X1-5:12, 3X800-2:28, 6X400-65 11k

Tue 6X400-64, 10X140-18, 5X800-3min, 5X2-31 10k

Wed 50X400 @ 69 sec on 3min send-off 20k

Thu 18X800 @ 2:44-2:53 14k

Fri mile + 1200 + 800 + 600 + 400 5k

Sat Race day (about 60k Q week total)

American HS Record Holder 5k

- **Longest <u>single training run</u>**   **66 miles** **105k**

- **Most miles run <u>in 1 week</u>**   **380 miles** **600k**

- **<u>Weekly average for 6 weeks</u>** **300 miles** **480k**

- **<u>Weekly average for 1yr</u>**   **240 miles** **385k**

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Purposes of Training

1 **Increase available energy**   **E & I**

2 **Improve speed & power**   **R**

3 **Improve economy**   **R**

4 **Improve endurance**   **T**

5 **Improve confidence**   **M**

Types of Training

%max

E/L   30-150 min/25-30%   <u>Heart & periphery</u>   **60-75%**

M   60-100min/20%   <u>Confidence</u>   **80-88%**

T   **~20min**   10%   5-20   **5-1**   <u>Endurance</u>   **84-90%**

I   5   **1-<1**   <u>Aerobic Power</u>   **=< 10k / 8%**   **<30min**   **97-100%**

R   2   **1-2**   <u>Speed, Economy</u> <u>Anaerobic power</u>   **=< 8k / 5%**   **<20min**   **>100%**
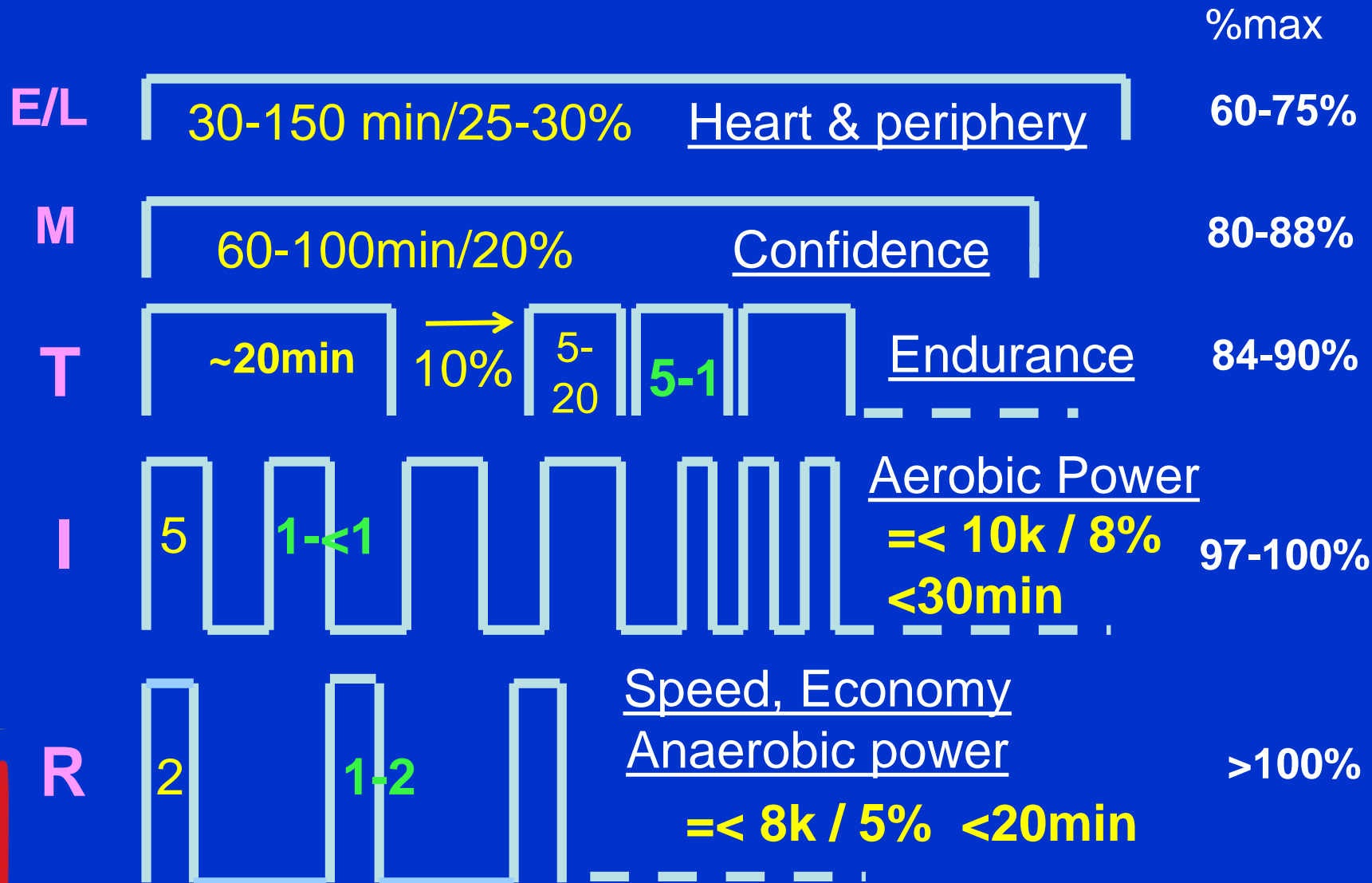
Use the least stress that provides the Maximum Benefit, Not Maximum Stress For the same benefit

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VDOT Tables

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Speed Endurance Finder

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Proper Interval Intensity

vVO2max
Pace
Per k

– **Above vVO$_2$max cost = 3 min at VO$_2$max**

– **At vVO$_2$max cost = 3 min at VO$_2$max**

Below vVO$_2$max cost = 0 min at VO$_2$max

3:10

3:20

3:30

VO$_2$ curves

3minutes

1 min   2 min   3 min   4 min   5 min
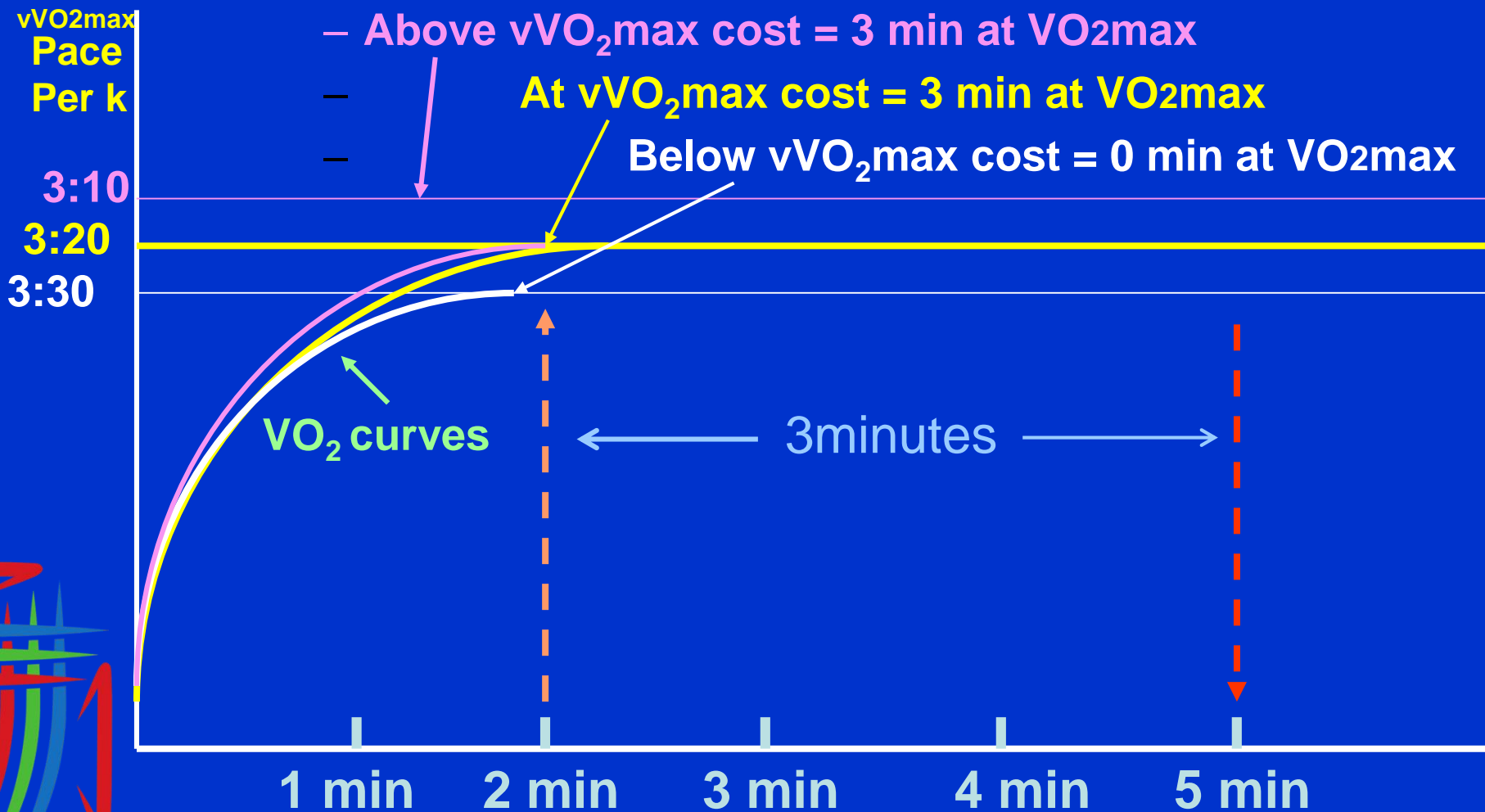
Setting up a Season of Training

I   **B/F IP**   **Base and injury prevention**

II   **I Q**   **Prepare for training ahead**

III   **T Q**   **Systems of importance**

IV   **F Q**   **Peak performance**

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Season Schedule

I	II	III	IV
B/F IP	I Q	T Q	F Q
	Altitude ?		
1	4	3	2

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How Many Weeks per Season

	I			II			III			IV		
	1	2	3	7	8	9	10	11	12	4	5	6
	13			18			14			17		
		21			19			15			22	
			23			20			16			24

37

15

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Sample Week of Training

1	2	3	4	5	6	7
L	Q1 (E)	(Q1) E or Q1	Q2 (Q2) E or Q1	E	E	Q3 (Q3) Race (Q)

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Some R (Repetition) Training

NX200 **R** with 200 jogs

NX400 **R** with 400 jogs

N Sets of 200 **R**, 200 **R**, 400 **R**

N Sets of 200 **R**, 200 **R**, 6-800 **R**

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1500m Test Session

8-10 X 400 <u>as fast as possible</u> with 1 minute rests and average pace = <u>current</u> 1500 ability

Don't start too fast

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Some **I** (Interval) Training

NX2min **I** with 1min jogs

NX3min **I** with 2min jogs

NX4min **I** with 3min jogs

NX5min **I** with 4min jogs

Some T (Threshold) Training

4-6X6min T with 1-min rests

2-4X10min T with 2-min rests

1-3 20min T with 3-min rests

2X10min T + 60min E + 2X10min T

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Marathon plan A

Week 1: **Q1** = L run   **Q2** = T+I+R session

Week 2: **Q1** = M run   **Q2** = E+M+E+M+E

Week 3: **Q1** = T runs **Q2** = T+R session

Week 4: No **Q**, Only E runs, but more km

Repeat same 4-week cycle, 16-24 weeks

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Marathon Plan B

(Quality session every 3rd or 4th day)

1st phase = E + L + hills + strides

2nd phase = E + L + Repetitions

3rd phase = E + L + Intervals

4th phase = E + L + Threshold

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Altitude Training

- **Altitude natives win at sea level**

- **Elite sea-level athletes move to altitude (and continue to win at sea level)**

- **Would-be elites can't afford altitude so spend their money on altitude tents**

- **Without altitude you can't be elite ?**

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Live high Train low

- **So speed is not lost? Is it?   Balke**
- **Fast, repetition work   Not affected**
- **Easy intensity   is 80-85% of work**
- **Threshold training ?   Purpose?**
- **Interval training ?   Benefits?**
- **Altitude natives ?   They Don't do it**
- **Do we send the right message ?**

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Successful and Unsuccessful Runners and Altitude Training
(6 weeks at altitude)

	9 Successful	**17 Unsuccessful**
VO$_2$max Pre	5347ml/min = 76.4ml/kg	5198ml/min = 78.2ml/kg
VO$_2$max ALT	4652ml/min = -13.0%	4427ml/min = -14.8%
VO$_2$max Post	5343ml/min = 0.0%	5055ml/min = -2.8%
VE max Pre	171 liters/min	181 liters/min
VE max ALT	187 liters/min = +9.4%	192 liters/min = +6.1%
VE max Post	175 liters/min = +2.3%	180 liters/min = -0.5%
HR max Pre	179 B/min	178 B/min
HR max ALT	172 B/min = -3.9%	172 B/min = -3.4%
HR max Post	176 B/min = -1.6%	171 B/min = -3.9%

Does Altitude Better Improve -----

VO$_2$max ?   I have seen yes and no

Economy ? I have seen yes and no

Threshold ? Unknown

Speed ?   Certainly can

Altitude Performance?   Definitely

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How Long Do The Benefits Last?

Limited time?   Depends on post-altitude training

Indefinite time?   I have definitely seen this happen

Do what works and where it works

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Remember
The Final Ingredient of Success

#5 Luck

(Or Focus On the Task at Hand)

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