

DEVELOPING AN ALL YEAR ROUND TRAINING PROGRAMME

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INDIVIDUAL PLAN

- ANY PLAN SHOULD CATER FOR EACH INDIVIDUAL
- TAKING INTO ACCOUNT THEIR STRENGTHS/WEAKNESSES
- TRAINING NEEDS
- TIME AVAILABLE
- COMMITMENTS Etc.

THE ATHLETE

- ASSESS THE ATHLETE
- STRENGTHS/ WEAKNESSES
- TIME AVAILABLE
- COMMITMENT/HUNGER
- MATURITY
- TECHNIQUE
- TRAINING YEARS

EVENT REQUIREMENTS

REQUIREMENTS FOR EACH OF THE ENDURANCE EVENTS.

<u>EVENT:</u>	<u>800m</u>	<u>1500m</u>	<u>5/10k</u>	<u>S/C</u>	<u>Mar</u>	<u>Walks.</u>
MOBILITY	*	*	*	*	*	*
ENDURANCE (O2)	*	*	*	*	*	*
SPEED (ALACTATE)	*	*	*	*		
SPEED ENDURANCE (LA02)	*	*	*	*		
STRENGTH	*	*		*		
STRENGTH ENDURANCE	*	*	*	*	*	*
POWER	*	(*)		(*)		
TECHNIQUE	*	*	*	*	*	*
TACTICS	*	*	*	*	*	*

OVERVIEW.

800m	ALL ASPECTS
1500m	ALL ASPECTS – BUT % DIFFERENT TO 800m
5k/10k	NO POWER & LITTLE STRENGTH & LACTATE.
S/Chase	ALL ASPECTS + EXTRA TECHNIQUE
Marathon	PREDOMINANTLY O2 SYSTEM
Walks	PREDOMINANTLY O2 SYSTEM + EMPHASIS ON TECHNIQUE.

ENERGY PERCENTAGES

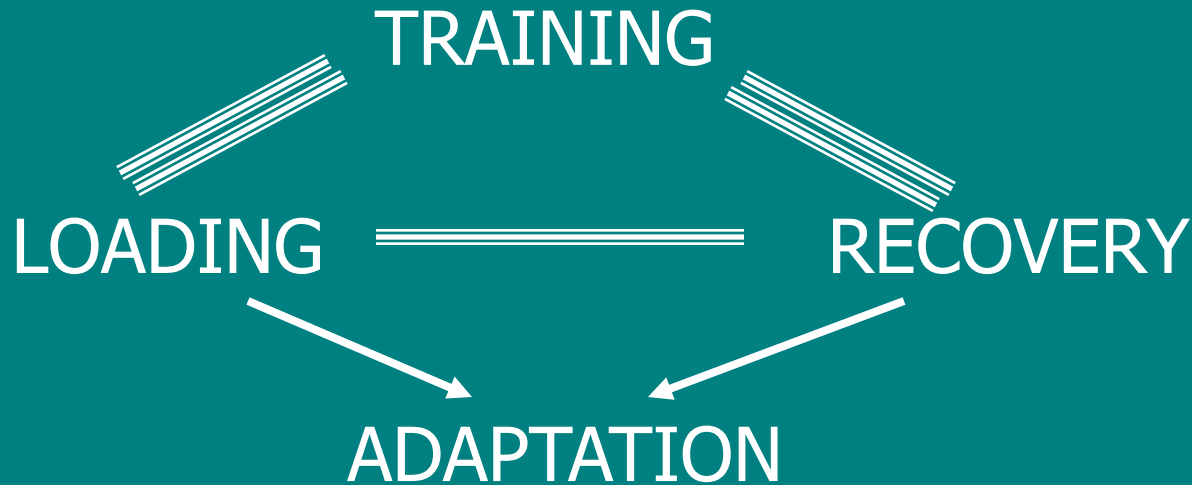
- | <u>DISTANCE</u> | <u>ATP/CP</u> | <u>ANAEROBIC-LACTATE</u> | <u>AEROBIC</u> |
|-----------------|---------------|--------------------------|----------------|
| 100m | 25% | 70% | 5% |
| 200m | 15% | 60% | 25% |
| 400m | 12% | 43% | 45% |
| 800m | 10% | 30% | 60% |
| 1500m | 8% | 20% | 72% |
| 3000m | 5% | 15% | 80% |
| 5000m | 4% | 10% | 86% |
| 10000m | 3-2% | 12-8% | 85-90% |
| Marathon | 0% | 5-2% | 95-98% |
- Shares of energy supply mechanisms during different track events.
(According to Mader)

Three Energy Systems

Limiting Factors

- Aerobic system:
 - Uses oxygen and fuel stores to provide energy
 - ☹ Limited by fuel and oxygen supplies
- Anaerobic lactic system:
 - Capable of operating with no oxygen but produces lactic acid
 - ☹ Limited by build up of H^+ ions (acidosis)
- ATP-CP system:
 - Stored, start up system. Capable of operating with no oxygen, no lactic acid produced
 - ☹ Limited by availability of creatine phosphate (CP)

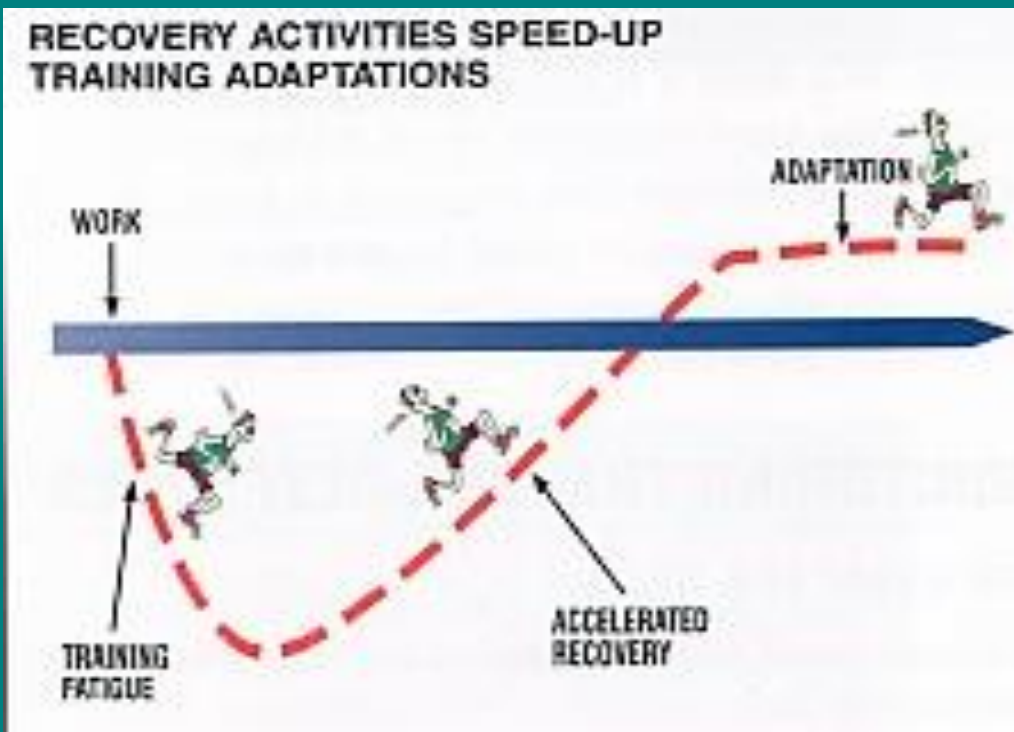
Load / Recovery Balance



Increased training loads require increased recovery to ensure appropriate adaptation

**Failure to restore homeostasis results in
OVERTRAINING**

Regeneration



Work
Optimally +
Recover Well
=
Best
Adaptation

de Castella & Clews 1996

TYPES OF TRAINING

- ALACTATE SYSTEM
- LACTATE SYSTEM
- OXYGEN SYSTEM
- STRENGTH TRAINING
- STRENGTH-ENDURANCE
/CONDITIONING
- POWER

ASSESS THE TRAINING SYSTEM

- USE OF SYSTEM?
- WHAT DOES IT TRAIN?
- WHEN SHOULD IT BE USED?
- VALUE OF THE SYSTEM?
- HOW OFTEN SHOULD SYSTEM BE USED?
- AGE/GENDER CONSIDERATIONS?
- OTHERS?

KEY POINTS IN ATHLETE'S YEAR

- CHANGE IN WINTER INTO
- (GENERAL TO SPECIFIC PREPARATION PHASE) INTO
- SUMMER (PRE-COMPETITION PHASE) INTO
- PEAKING – FOR COMPETITION CLIMAX

THE CURRENT SITUATION

- ENDURANCE - Cardiovascular System
 - Respiratory System
 - V02 Max.
 - Higher Haemoglobin
- Aerobic Training - Steady Running
 - Long Steady Runs
 - Tempo Runs (LT)
 - Alternate Pace Runs
 - Fartlek
 - Repetition Training

SITUATION CONTINUED

- STRENGTH-ENDURANCE
 - Local Muscular Endurance
- Training
 - Circuit Training
 - Oregon Circuit
 - Repetition Running
 - Resistance Training
 - Hill Running

SITUATION CONTINUED

- STRENGTH TRAINING
 - Strengthening of the Core and Legs
- Training
 - Free Weights
 - Multi-Gym
 - Resistance Training
 - Hill Work
 - Mixed Sessions

SITUATION CONTINUED

- SPEED (Alactate)– Keeping in touch with Speed
- MOBILITY – Daily to improve mobility, help range of movement and prevent injury.
- TECHNIQUE – During Transition/Early Season
- SPEED-ENDURANCE (Anaerobic)
 - Improve Lactate Tolerance.
 - Just being implemented
- CORE STABILITY – All Year Round

Running Economy

It simply means using less oxygen as you run.

This means you're running at a smaller percentage of your $\dot{V}O_2\text{max}$, your maximal rate of oxygen utilization

How do we improve this?

Strength Training - Circuits

Strength Training - weights

Strength Training - Core

Drills

Hill running & Sand Dunes

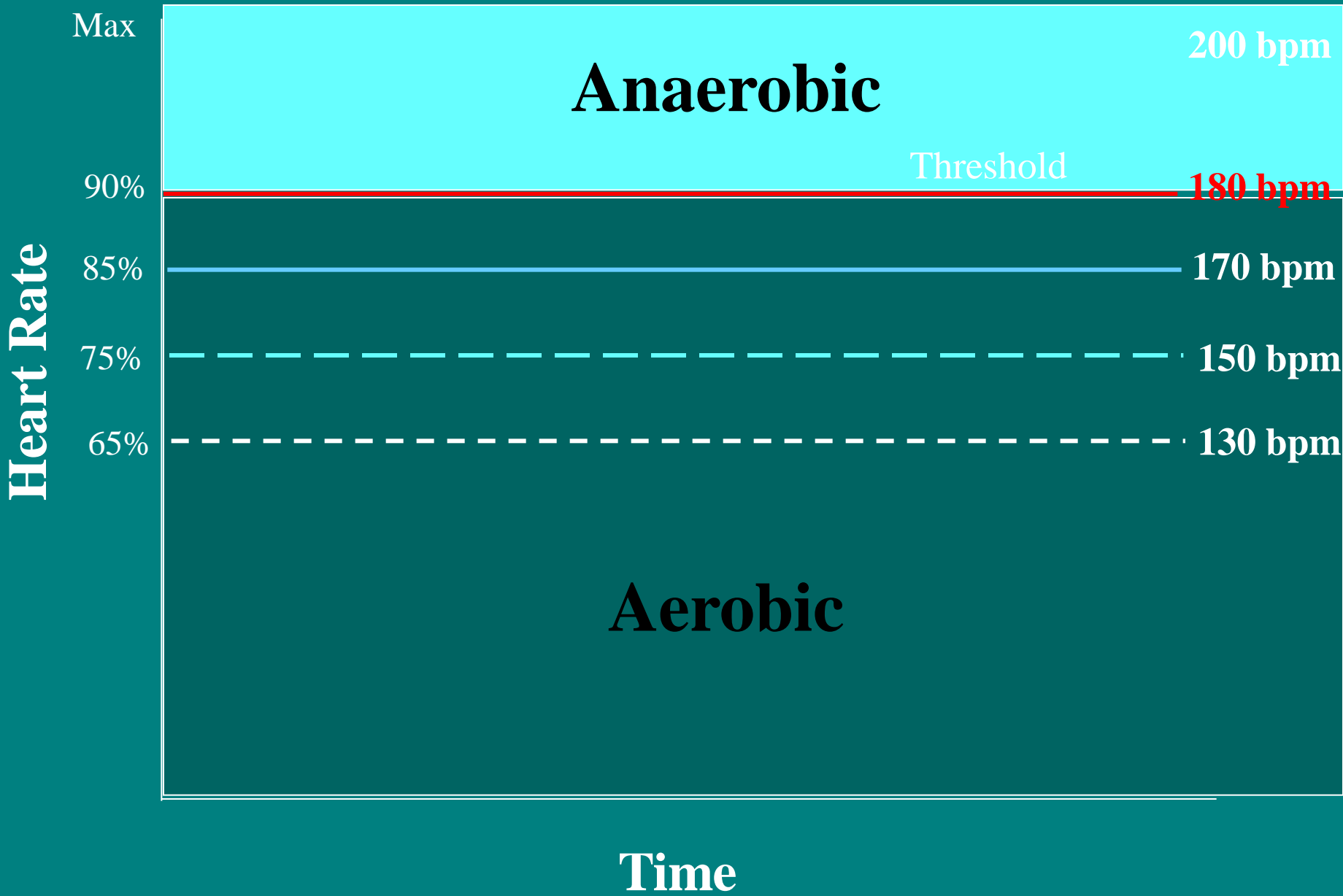
Running efficiently and often

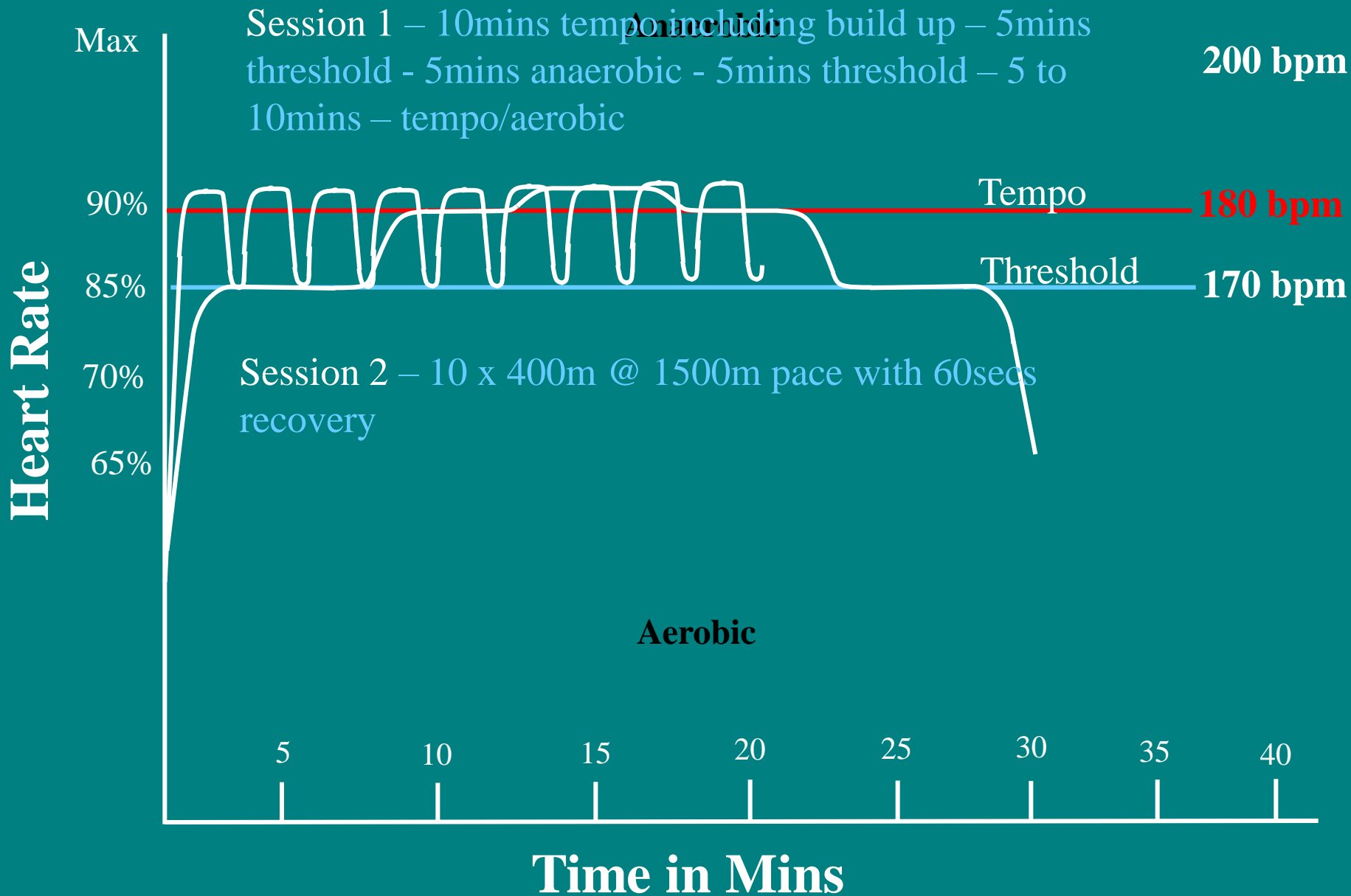
TO BE IMPLEMENTED

- POWER - Explosive Strength
 - Ability to React/Respond
- Training - Plyometrics
 - Bounding
 - Hill Work
 - Step Work
 - Depth Jumps

OVERVIEW OF THE CURRENT SITUATION

- GOOD AEROBIC BASE
- GOOD STRENGTH BASE AND/OR STRENGTH-ENDURANCE
- GOOD MOBILITY
- A YEAR MORE MATURE AND A YEAR FITTER/STRONGER THAN LAST YEAR
- REASONABLE SPEED AND POWER
- LITTLE SPEED-ENDURANCE





FUTURE KEY PROGRESSIONS

- ENDURANCE – Slightly decreased
- STRENGTH- ENDURANCE – Decreased
- STRENGTH – Decreased
- POWER – Slightly decreased
- MOBILITY – Maintained
- SPEED-ENDURANCE – Increased
- SPEED – Increased
- EVENT SPECIFICWORK - Introduced

DEVELOPMENT OF KEY AREAS

- SPEED (Alactate) – Concentrating on:-
 - Acceleration
 - Pure Speed (30m – 80m)
 - Technique
 - Relaxation
 - Coordination
 - Reaction

KEY AREAS CONTINUED

- SPEED
 - Sprint Drills
 - Up the Clock Sessions
 - Down the Clock Sessions
 - Short speed
 - Down Hill Running
 - Acceleration Runs
 - Building up the Pace
 - Reaction Drills

KEY AREAS CONTINUED

- SPEED-ENDURANCE
 - Development of Anaerobic Efficiency
 - Develop Lactate Tolerance
 - Offset or Prolong Oxygen Debt
 - Help with removal of Waste Products
 - Keep the acid/alkaline balance

KEY AREAS CONTINUED

- SPEED-ENDURANCE
 - Few Repetitions
 - Long Recoveries
 - High Intensity

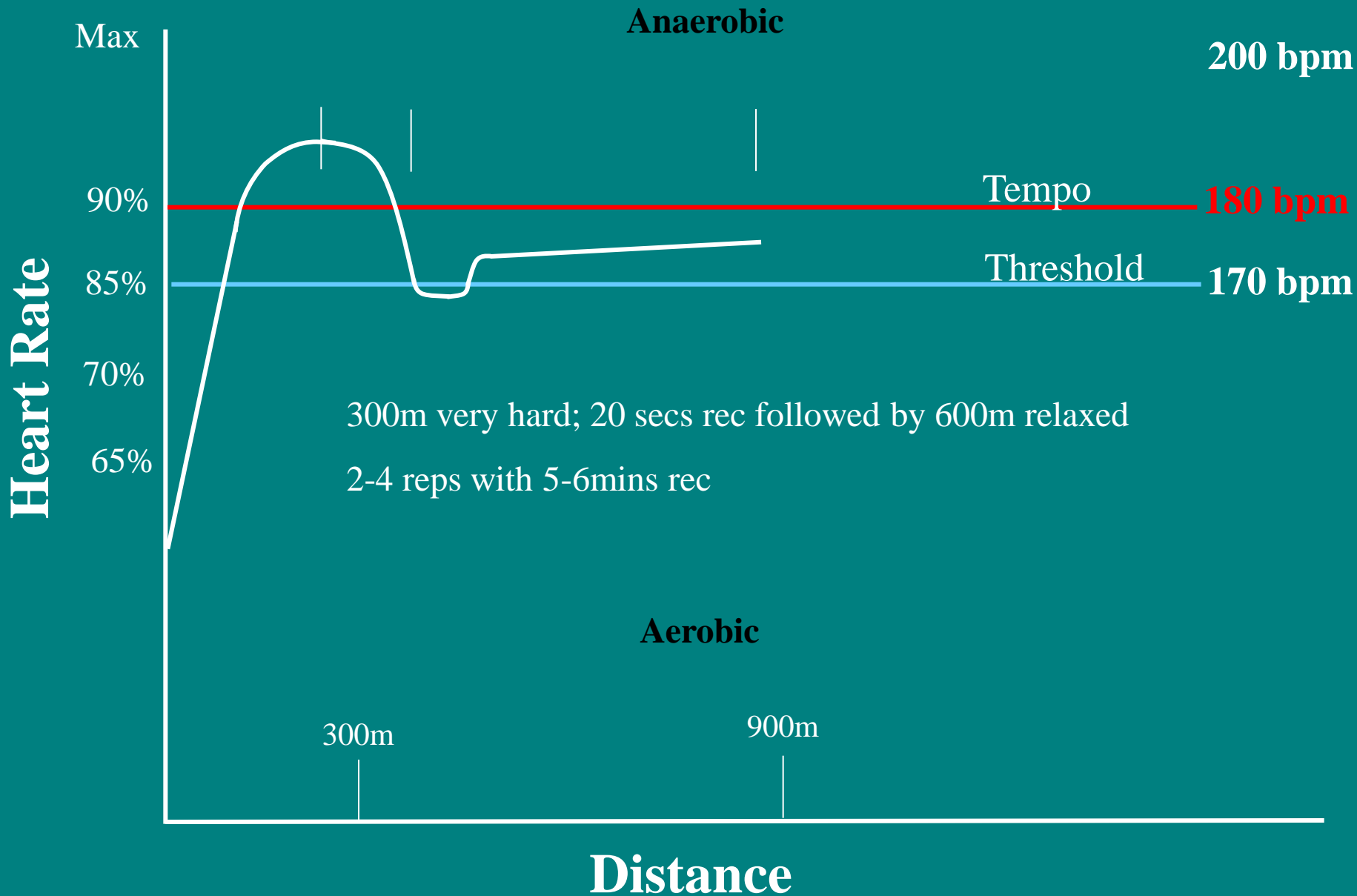
Unlike Repetition Running:-

- High Number of Repetitions and Sets
- Very Short Recoveries
- Low Intensity

SPEED ENDURANCE TRAINING

- QUALITY REPETITIONS (2 X 1000M CR)
- SPLIT INTERVALS (3 X 600 46s/44s)
- PACE INCREASES (3 x 600 32s/30s/28s)
- PACE INJECTORS (3 X 600 30s/28s/30s)
- TIRED SURGES (3 X 600 45s/100m jog/28s)
- HIGH INTENSITY REPS (3 X 300/200 20s/5m)

Lactate infusion and diffusion



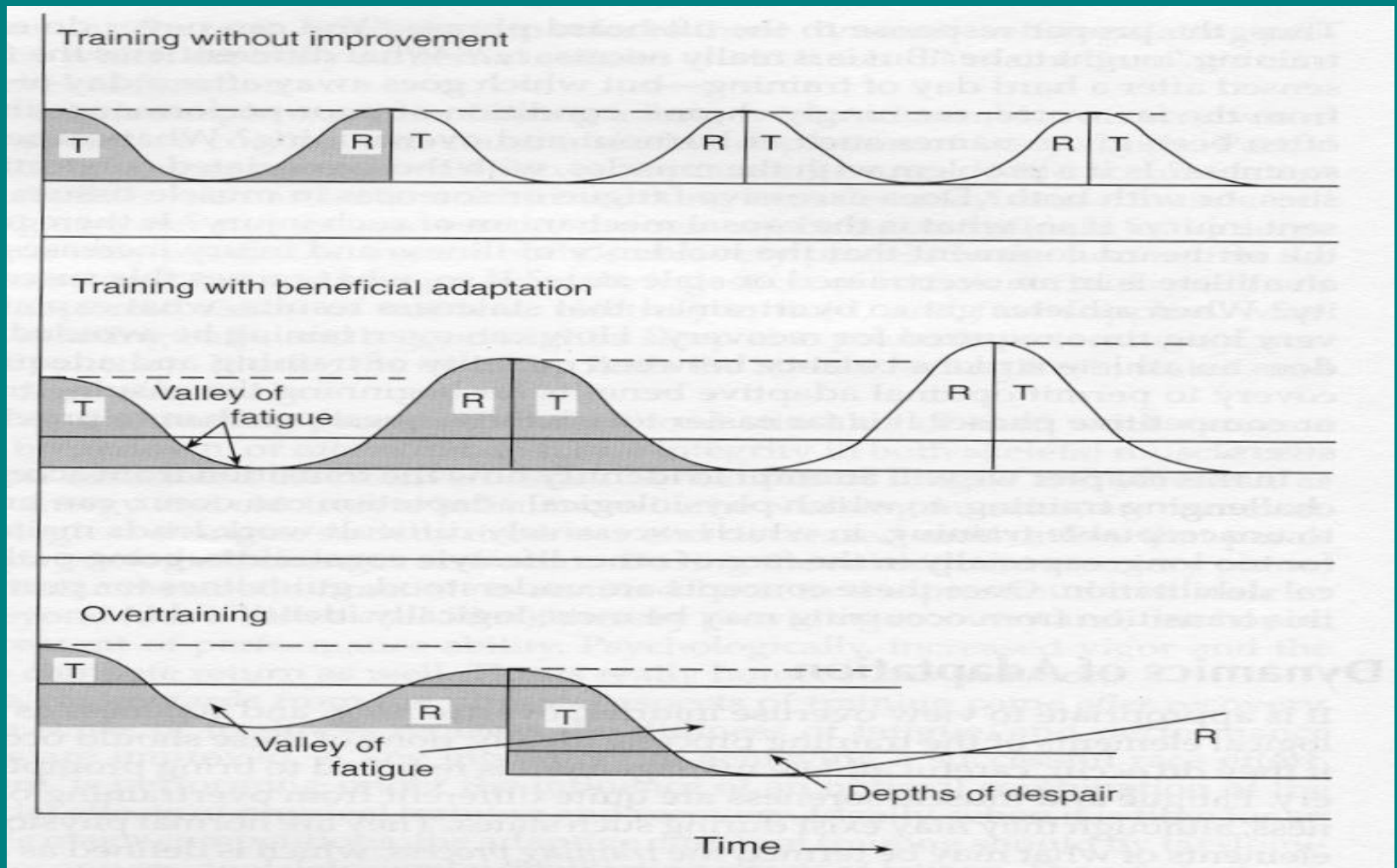
OTHER REQUIREMENTS

- ENDURANCE – Reduced Mileage. Keep long run and Tempo run. Lose a session
- STRENGTH – Reduced sessions and set/repetitions with the session
- STRENGTH-ENDURANCE – As above
- POWER – Reduction in repetitions/exercises
- MOBILITY – Maintain
- CORE STABILITY - Maintain

CONCLUSION

- HURRY SLOWLY
- PROGRESSION IS VITAL
- NO SHORT CUTS
- COVER ALL THE REQUIREMENTS AT DIFFERENT INTENSITY AND QUANTITY
- PLANNING AND PREPARATION ARE THE KEY
- BALANCE

EFFECTS OF TRAINING



REGENERATION

- ACTIVE COOL DOWN – STRETCHING
- HYDRATION
- NUTRITION
- REST ----> SLEEP
- SPECIALISED THERAPIES

Specialised Therapies

- Ice Therapy
- Hydrotherapy
 - Massage
- Sleep & Rest



Planning

Training Programme

Competition Programme

Training Environment

Pre-Competition Phase

800m Runner			
March	April	May	June
2/3 Wks	4Wks	4Wks	4Wks 12
Aerobic	Aerobic	Aerobic	Aerobic
60% Aerobic/Temp	50% Aerobic/Temp	40% Aerobic/Temp	35% Aerobic/Temp 4
Anaerobic	Anaerobic	Anaerobic	Anaerobic
30% Threshold/la 5% Speed 5% Strength	40% Threshold/la 5% Speed 5% Strength	25% Threshold 25% Anaerobic 5% Speed 5% Strength	25% Threshold 2/3 25% Anaerobic 2/3 10% Speed 2 5% Strength 1

Pre-Competition Phase

1500m Runner			
March	April	May	June
2/3 Wks	4Wks	4Wks	4Wks 12
Aerobic	Aerobic	Aerobic	Aerobic
70% Aerobic/Temp	65% Aerobic/Temp	60% Aerobic/Temp	50% Aerobic/Temp 6
Anaerobic	Anaerobic	Anaerobic	Anaerobic
20% Threshold/la 5% Speed 5% Strength	25% Threshold/la 5% Speed 5% Strength	15% Threshold 15% Anaerobic 5% Speed 5% Strength	20% Threshold 1/2 15% Anaerobic 2 5% Speed 1 5% Strength 1 5% Tactics 1

Understanding Competition and Major Champs

World Championships 2007 – Women's 800m



1	4	642	Janeth Jepkosgei	 KEN	1:56.04	(WL)
2	6	666	Hasna Benhassi	 MAR	1:56.99	
3	9	398	Mayte Martínez	 ESP	1:57.62	(PB)
4	8	819	Olga Kotlyarova	 RUS	1:58.22	
5	3	856	Brigita Langerholc	 SLO	1:58.52	
6	5	258	Sviatlana Usovich	 BLR	1:58.92	
7	2	815	Svetlana Klyuka	 RUS	2:00.90	
	7	689	Maria de Lurdes Mutola	 MOZ	DNF	

400m

642

Janeth Jepkosgei KEN

56.16

Understanding Competition and Major Champs

World Championships 2007 – Women's 800m

Heats: 25th Aug – 19.30 – 20.05 6 heats

Semi-finals: 26th Aug – 19.35 – 19.53 3 semi-finals

Final: 28th Aug – 21.20

Heats: First 3 plus 6 fastest – **slowest “fastest” 2:00.61**

Average first lap = 58.69

Semi-finals: First 2 plus 2 fastest – **slowest “fastest” 1:58.41**

Average first lap = 59.21

Understanding Competition and Major Champs



World Championships 2007 – Men's 1500m

1	1113	Bernard Lagat	USA	3:34.77
2	408	Rashid Ramzi	BRN	3:35.00 (SB)
3	773	Shedrack Kibet Korir	KEN	3:35.04
4	769	Asbel Kiprop	KEN	3:35.24 (PB)
5	306	Tarek Boukensa	ALG	3:35.26
6	312	Antar Zerguelaine	ALG	3:35.29
7	505	Arturo Casado	ESP	3:35.62
8	1154	Alan Webb	USA	3:35.69
9	583	Andrew Baddeley	GBR	3:35.95
10	879	Nicholas Willis	NZL	3:36.13
11	404	Belal Mansoor Ali	BRN	3:36.44
12	509	Sergio Gallardo	ESP	3:37.03
13	510	Juan Carlos Higuero	ESP	3:38.43
14	808	Youssef Baba	MAR	3:38.78



400m	1154	Alan Webb	USA	58.63
800m	769	Asbel Kiprop	KEN	1:58.08
1200m	769	Asbel Kiprop	KEN	2:55.21



Understanding Competition and Major Champs

World Championships 2007 – Men's 1500m

Semi-finals: 27th Aug – 20.40 – 20.50 2 semi-finals

Semi-finals: First 5 plus 2 fastest – slowest “fastest” 3:41.15

Semi-finals : 1 last 300m = 39.29 last 200 < 26.19

2 last 300m = 38.7 last 200 < 25.8

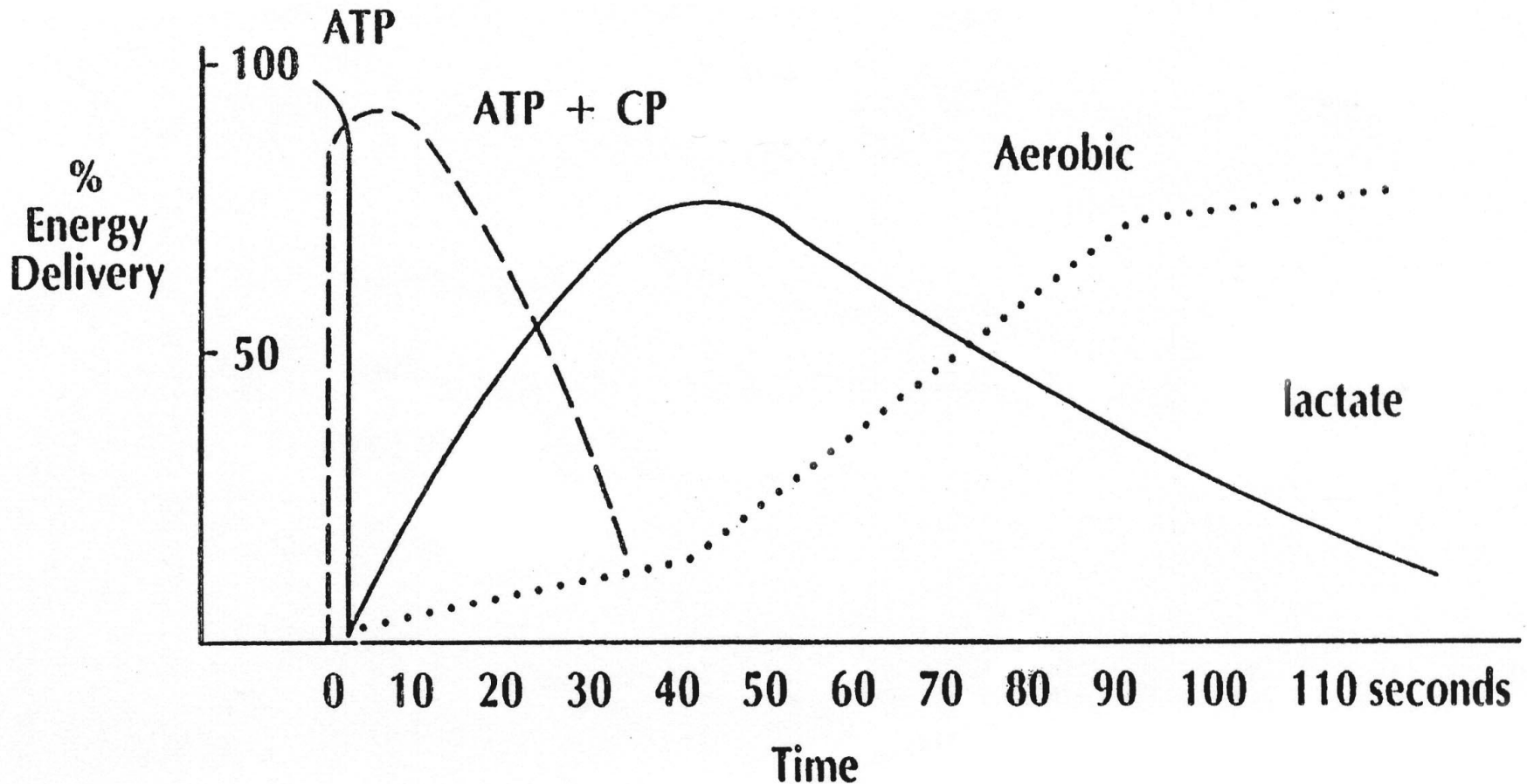
Final: 3:34.77

laps = 58.63 – 59.45 – 57.13 – 39.56 (52.74 pace)

CONCLUSION

- THANK YOU FOR LISTENING
- ANY QUESTIONS

Contributions of Energy Systems over time



OREGON CIRCUIT

THE OREGON CIRCUIT

Side Stretch 1 + 100m Stride

Leg Claps 2 + 100m Stride

Knees to Chest 3 – 30 seconds Rest +100m Stride

Star Jumps 4 + 100m Stride

Donkey Kicks 5 +100m Stride

Shuttle Run 6 - 30 seconds Rest +100m Stride

Side Swings 7 + 100m Stride

High Knees 8 + 100m Stride

Burpees 9 + Lap Recovery

- 30 Seconds rest after exercise 3 & 6
- Jog 1 lap, recovery after exercise 9 and repeat
- Number of activities and sets depends on athletes ability