Associação Distrital de Atletismo de Leiria

Avaliação Fisiológica na Marcha Atlética - Proposta

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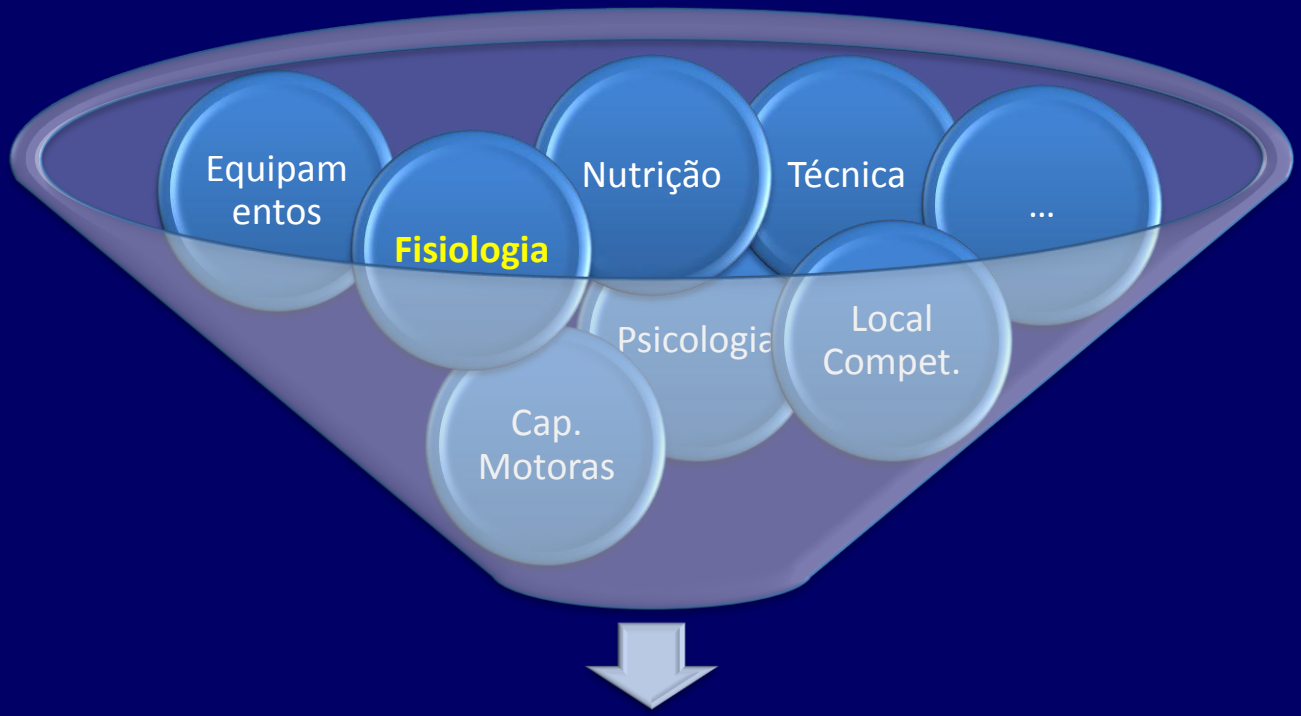
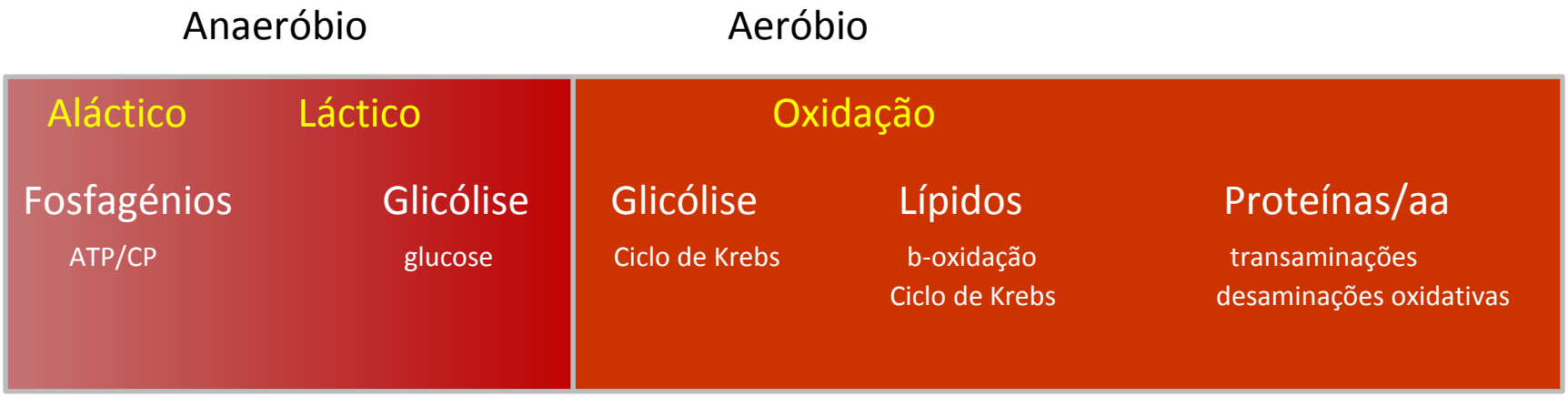
Performance do Atleta
Personalidade e Conhecimentos do *Coach*
Ciências Associadas
Qualidade do Treino
Equipamentos e Infra-Estruturas
Competição
Capacidades do Atleta
Hereditariedade
Motivação

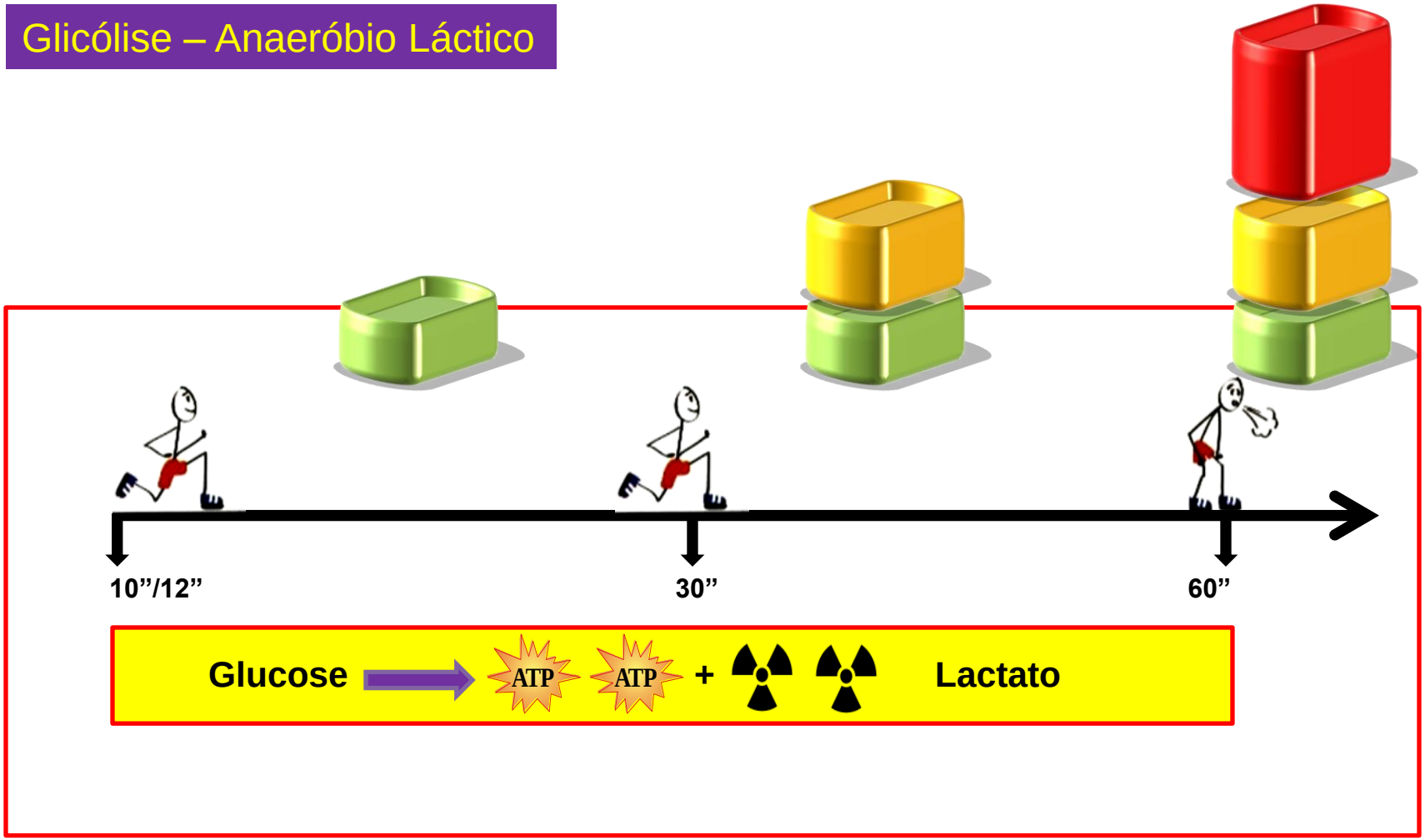


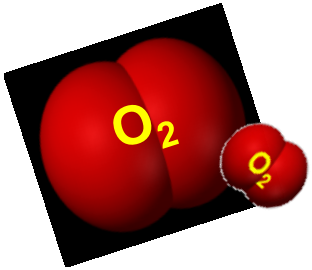
Estrutura do Rendimento

Sistema Energéticos

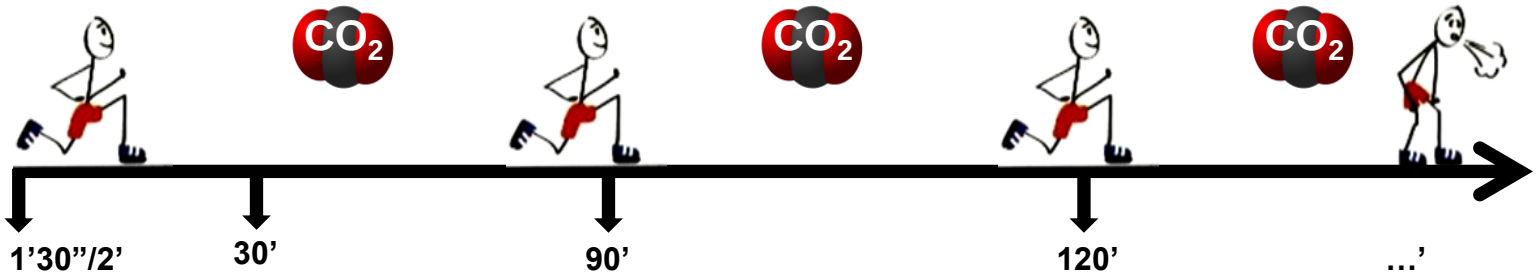


Glicólise – Anaeróbio Láctico





Oxidação



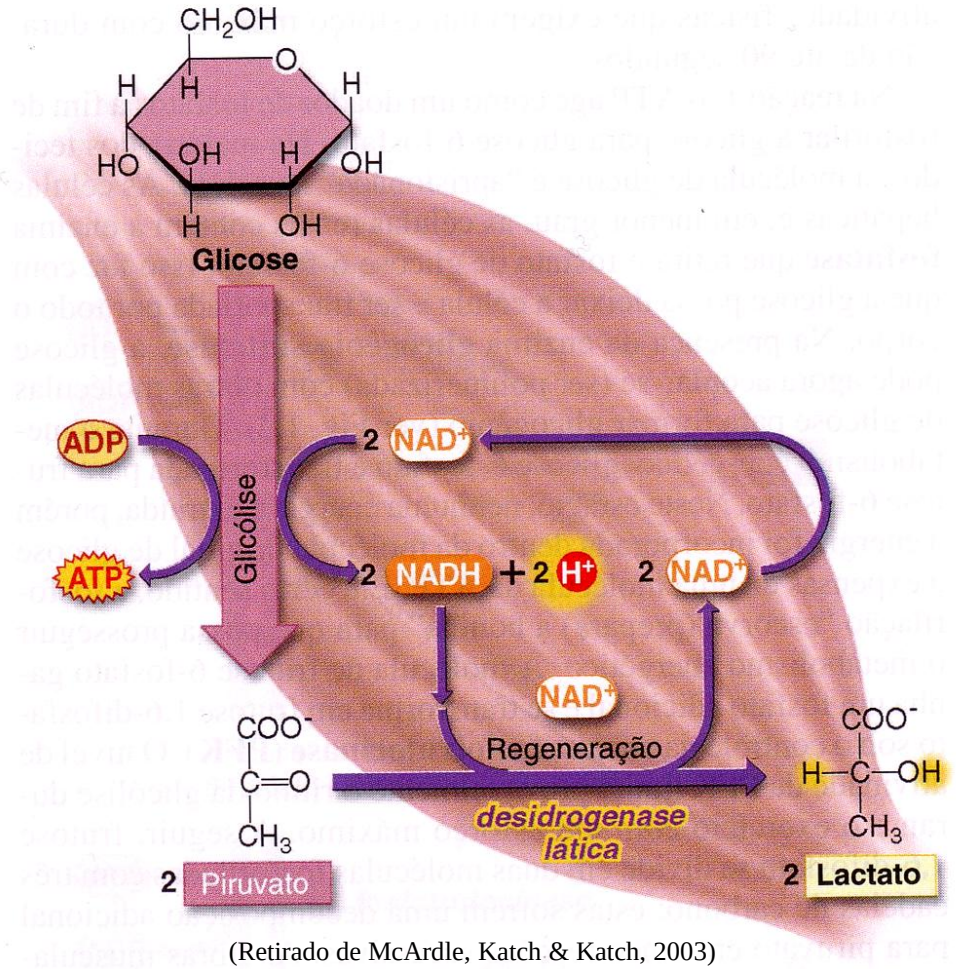
Glucose → 36 a 38 ATP

Lípidos 3x131 ATP

Lípidos (*n* ATP)

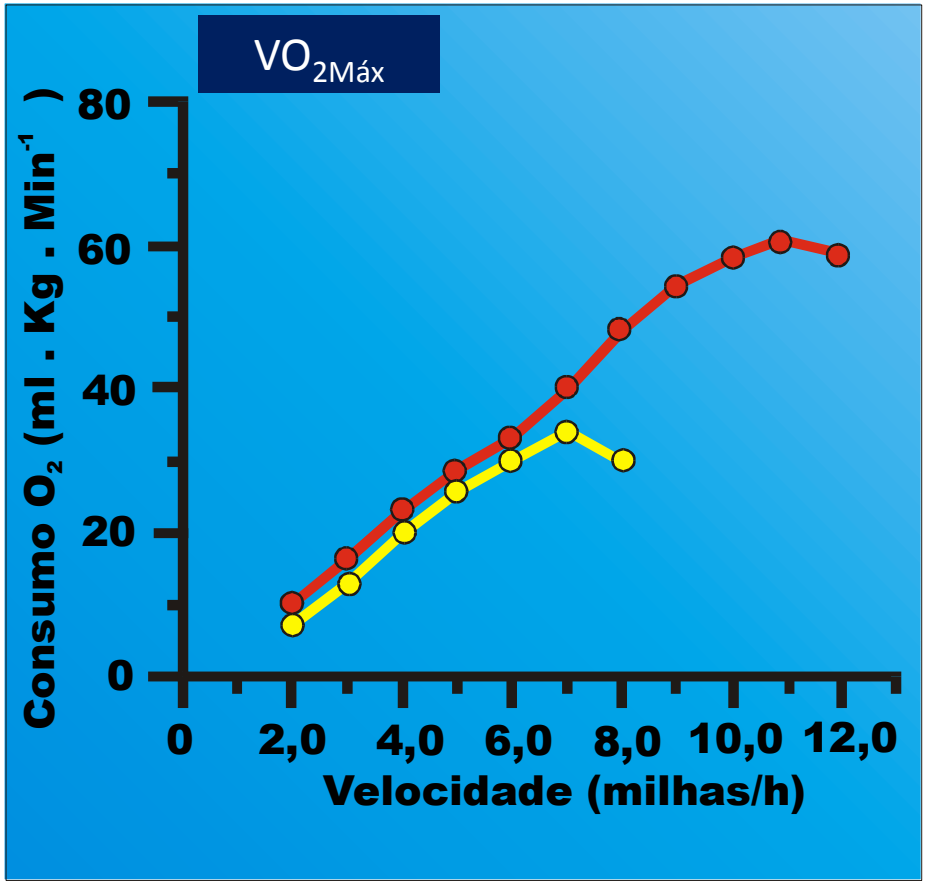
Lípidos + Aminoácidos (*n ATP*)

Aeróbio ou Anaeróbio Lático?

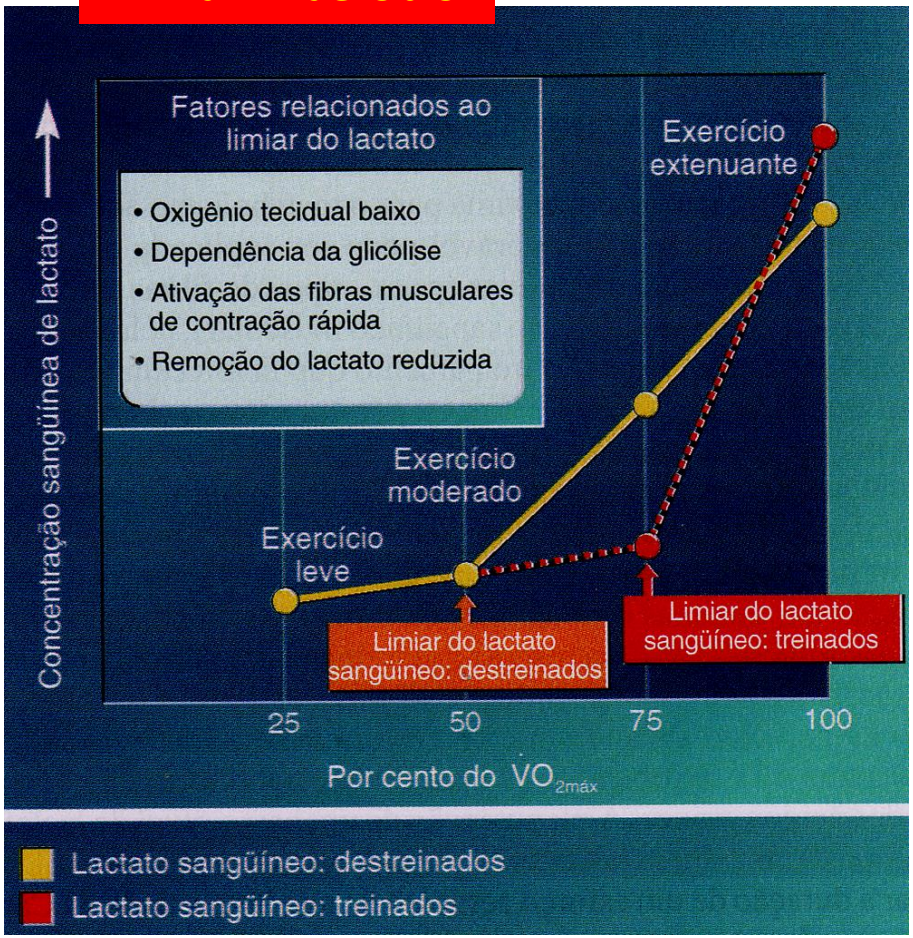


(Retirado de McArdle, Katch & Katch, 2003)

$VO_{2Máx}$ e Limiar Anaeróbio



Limiar Anaeróbio



(Retirado de McArdle, Katch & Katch, 2003)

World Outdoor Records - Women

Women

Caracterização da Marcha

Discipline	Perf	Wind	Athlete	DOB	Nat
10,000 Metres Race Walk	41:56.23		Nadezhda Ryashkina	22/01/1967	URS
20,000 Metres Race Walk	1:26:52.3		Olimpiada Ivanova	26/08/1970	RUS
20 Kilometres Race Walk	1:25:08 *		Vera Sokolova	08/06/1987	RUS

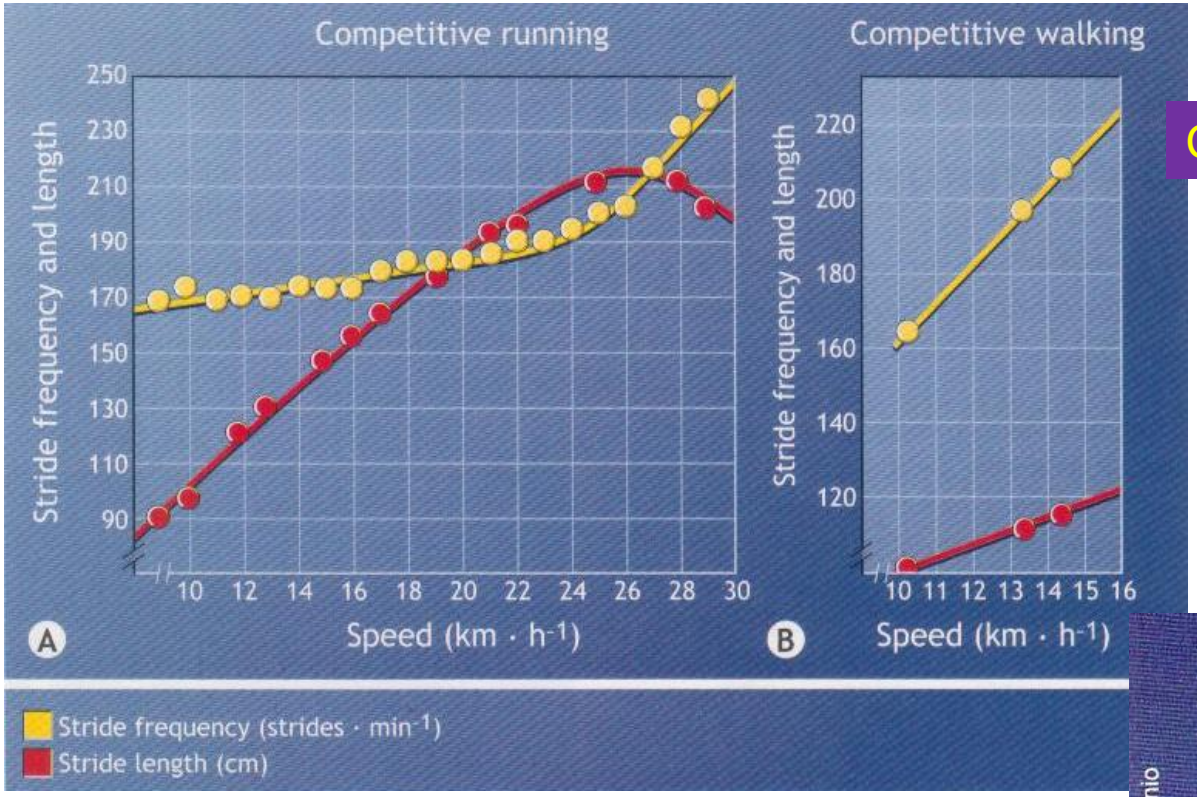
World Outdoor Records - Men

Men

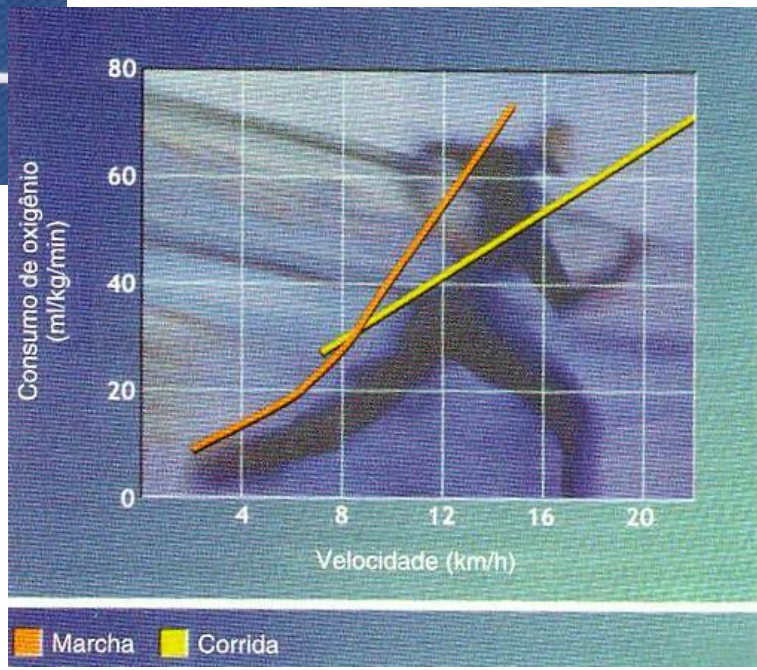
Discipline	Perf	Wind	Athlete	DOB	Nat
20,000 Metres Race Walk	1:17:25.6		Bernardo Segura	11/02/1970	MEX
20 Kilometres Race Walk	1:17:16		Vladimir Kanaykin	21/03/1985	RUS
30,000 Metres Race Walk	2:01:44.1		Maurizio Damilano	06/04/1957	ITA
50,000 Metres Race Walk	3:35:27.2		Yohan Diniz	01/01/1978	FRA
50 Kilometres Race Walk	3:34:14		Denis Nizhegorodov	26/07/1980	RUS

Fonte: www.iaaf.org

Caracterização da Marcha



(Retirado de McArdle, Katch & Katch, 2010)



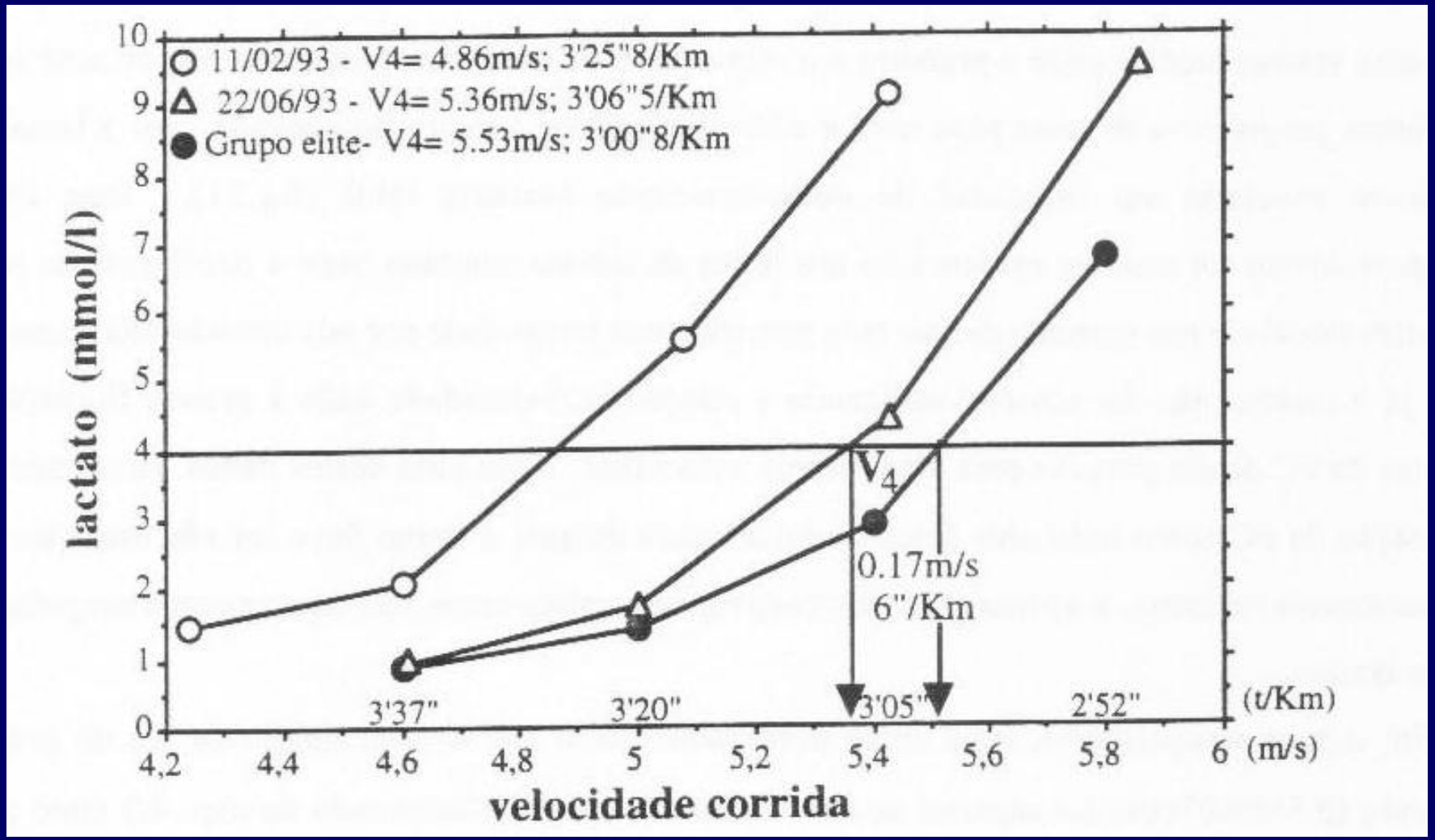
(Retirado de McArdle, Katch & Katch, 2003)

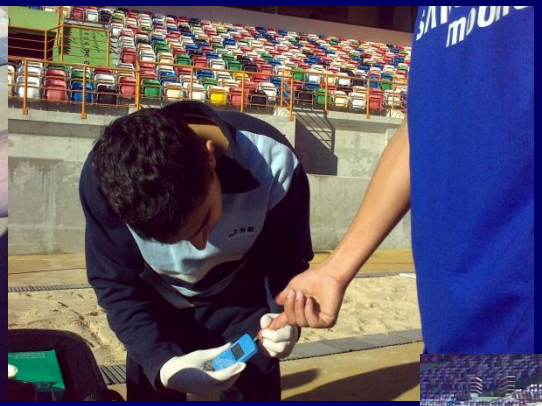
Caracterização da Marcha

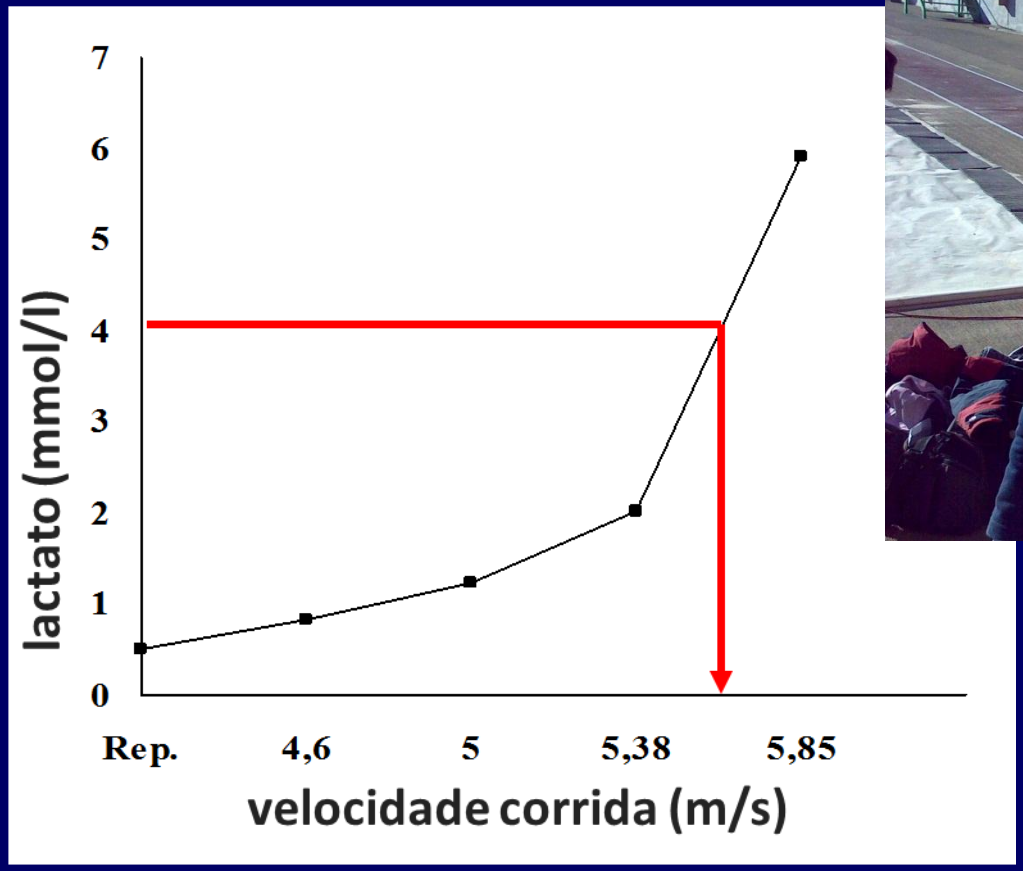
	v-20 km ($km \cdot h^{-1}$)	VO_{2max} ($l \cdot min^{-1}$)	VO_{2max} ($ml \cdot kg^{-1} \cdot min^{-1}$)	v-VO_{2max} ($km \cdot h^{-1}$)	LTP ($mmol \cdot l^{-1}$)	v-LTP ($km \cdot h^{-1}$)	VO_2 at LTP ($ml \cdot kg^{-1} \cdot min^{-1}$)	Fraction of VO_{2max} at LTP (%)	Race walking economy ($ml\ O_2 \cdot kg^{-1} \cdot km^{-1}$ at 12 $km \cdot h^{-1}$)
♂ Mean	13.2	5.0	70.1	14.8	2.8	13.4	62.0	87	258.1
± SD	0.6 (n=17)	0.5 (n=16)	8.2 (n=16)	1.0 (n=17)	0.9 (n=17)	0.8 (n=17)	6.2 (n=14)	6 (n=13)	24.3 (n=15)
♀ Mean	11.1	3.1	56.7	12.9	2.9	11.8	50.6	89	257.8
± SD	0.6 (n=12)	0.6 (n=12)	7.3 (n=12)	0.7 (n=12)	1.3 (n=12)	0.5 (n=12)	8.9 (n=12)	8 (n=12)	44.9 (n=11)
♂♀ Mean	12.3	4.2	64.8	14.0	3.0	12.8	57.3	89	258.0
± SD	1.2	1.1	10.5	1.3	1.1	1.0	9.4	7	33.7

Drake et al., 2011

Limiar Anaeróbio






7
6
5
4
3
2
1
0
lactato (mmol/l)
Rep.
4,6
5
5,38
5,85
velocidade corrida (m/s)

Inten-sity Symbol	Training for:	Duration of Reps.	# of Reps.	R.I.	Ratio Work/ R.I.	LA Conc. (mM)	HR	% of Maximal Intensity	
								early	late
1	Lactic Acid Tolerance Training (LATT)	30" -60" 2' -2.5"	2x2-4 4-6 (8)	30' > 5'	1:2-1:3	12-18 Mx=20	Near Mx. or Mx.	> 85	> 95
2	Maximal Oxygen Consumption Training (MVO_2T)	3-5'	4-8(12)	2-3'	2:1	6-12	180	80-85	85-90
3	Anaerobic Threshold Training (AnTT)	1:30 -7' 8' -1 h	3-5 1-2	1-2'	1:1 1:2	4-6	150-170	75-85	85-90
4	Phosphate System Training (PST)	4-15"	10-30	1-3'	1:4-1:25	------	------	------	95
5	Aerobic Threshold Training (ATT)	10' -2 h	6-1	1-2'	1:1-1:.2	2-3	130-150	>60	> 60

Figure 109. Suggested guidelines for training the <<five intensities>> of the energy systesm (" represents seconds, ' minutes, and h hours).

(Retirado Bompa, 1990)

Obrigado pela atenção e pelo que fazem por Portugal!