# Polish way to train 400 m runners

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AGENDA

- **Planning an annual training**
  - Setting goals & competition schedule
  - Periodization of the training
  - Choosing the right locations for the camps / high altitude training

- **Methods of developing motor abilities**
  - Speed & speed endurance training
  - Strength & running strength training
  - Endurance in a different phases of athletic preparation

- **Conclusions of the research study conducted on the Polish National Team**

- **Q&A**
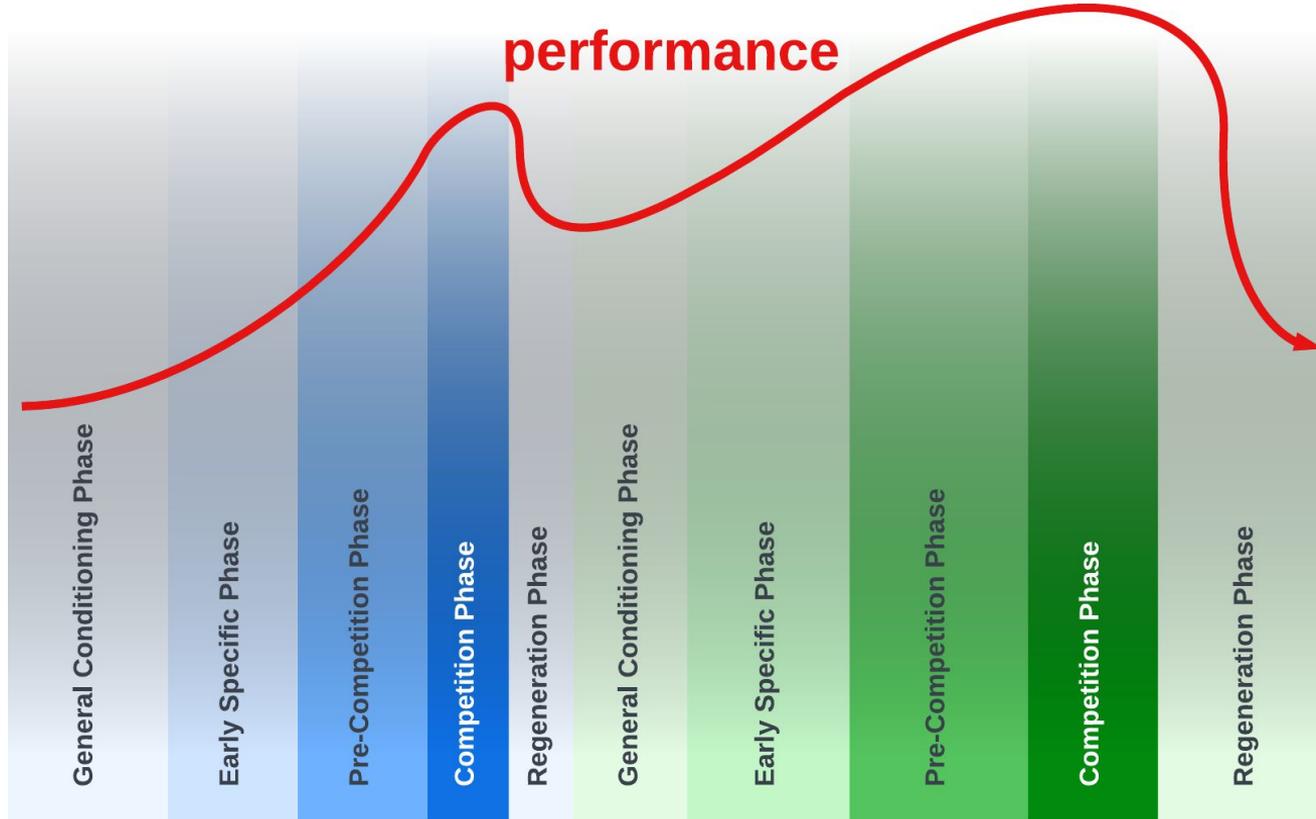
Example speed training

| General Conditioning Phase	Early Specific Phase	Pre-Competition Phase	Competition Phase
endurance/running strength + speed accents	speed endurance	speed endurance + speed	speed
30" 30" 30" 20" 20"' 30" 30" 30" 20" 20" 30" 30" 20" 20" 20" 30" 30" 20" 20" 20" rest within set = 1,5' Rest between sets = 4' or 3x4x80m uphill sprints rest within set = walk back Rest between sets = 3'	5x100m r=1:15 (goal 13,5s) 5x100m r=1:15 (goal 13,0s) 5x100m r=1:15 (goal 12,5s) 5x100m r=1:15 (goal 12,0s) R = 6'	150m - 150m - 120m r=6'' (17,3s-16,5s-13,2s) 150m - 150m - 120m r=6' i 6-8' (15,75s-15,75s-12,6s) R = 8' + 3x40m 2x60m 120m 150m full rest = 5-12'	2 x block start 2 x 80m 2 x 60m 2 x 40m full rest = 5-12'

Example strength training

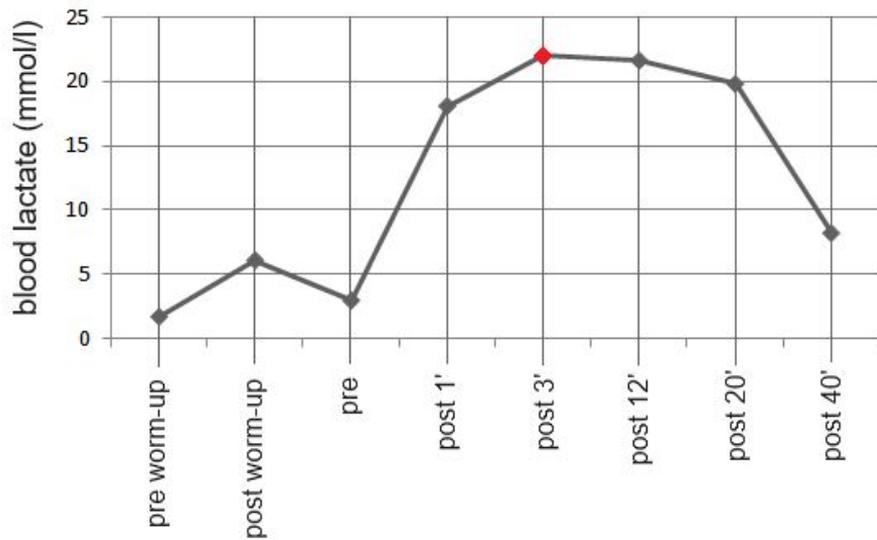| General Conditioning Phase	Early Specific Phase	Pre-Competition Phase	Competition Phase
strength + running strength	**strength + running strength**	**explosive strength + power**	**explosive strength + power**
strength in the gym	strength in the gym	explosive strength in the gym	explosive strength in the gym
+	+	+	+

60-80-100-80-60 Skipping A
60-80-100-80-60 horizontal jumps
r=walk back
 	
5x (40SA -> 40SB -> 80 sprint>
30" rest -> 80 horizontal jumps)
R=3'
	4x (80 SA, 80 hor. jmps, 60 SB)
	r=walk back
	R= 1'
	
	3x (60SA -> 40SB -> 60 horizontal jumps -> 40 sprint)
	r=3'
		2x80m sprint with sled (~12,5kg)
		    +80m sprint without sled, r=1,5'
		2x80m sprint with sled (~15kg)
		    +80m sprint without sled, r=1,5'
		2x60m sprint with sled (~15kg)
		    +60m sprint without sled, r=2'
		R= 6' i 8'
			shot throws (4kg): 6 x forward
			shot throws (4kg): 6 x backward
			hops: 5 x 6 hurdles (99cm)
			3 x 5 horizontal jumps -> sprint
			4 x sprints

Example endurance training

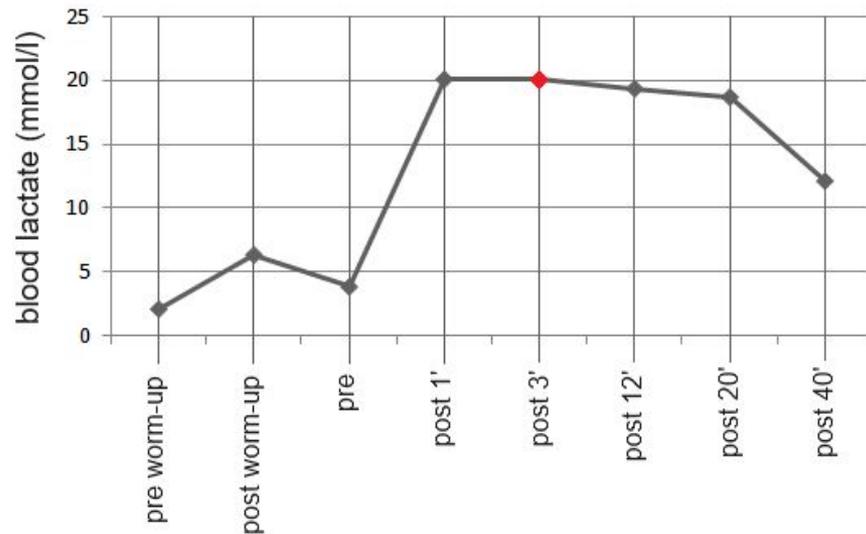| General Conditioning Phase	Early Specific Phase	Pre-Competition Phase	Competition Phase
aerobic endurance	aerobic/anaerobic endurance (tempo runs)	anaerobic (special) endurance	anaerobic (special) endurance
20' steady jog 1' 2' 3' 2' 1' r=2' 1' 2' 3' 2' 1' r=2' 1' 2' 3' 2' 1' r=2'	500 – 500 – 300 r=3,5' (1:35-1:30-48) R=7' 500 – 400 – 300 r=4,5' (1:25-1:04-43,5) R=9' 500 – 400 – 300 r=5' i 6' (1:20-1:00-40,5)	500 - 300 - 500 - 300 (1:20 - 40,5 - 1:05 - 95%) R=8' - 10' - 15' **6.05.17** Execution: 1:19,47 - 40,62 - 1:03,47 - 35,12 Blood lactate: 3' = 25 mmol/l (max on the scale) 4' = 25 mmol/l (max on the scale) 20' = 22,6 mmol/l **28.06.17** 400m - 45,23s (Forbach, FRA)	200 - 200 - 250 - 150 (24 - 22,5 - 27,5 - 95%) R= 6' 8' 12-15' or 150 - 300 (16,5 - 33) R=15'

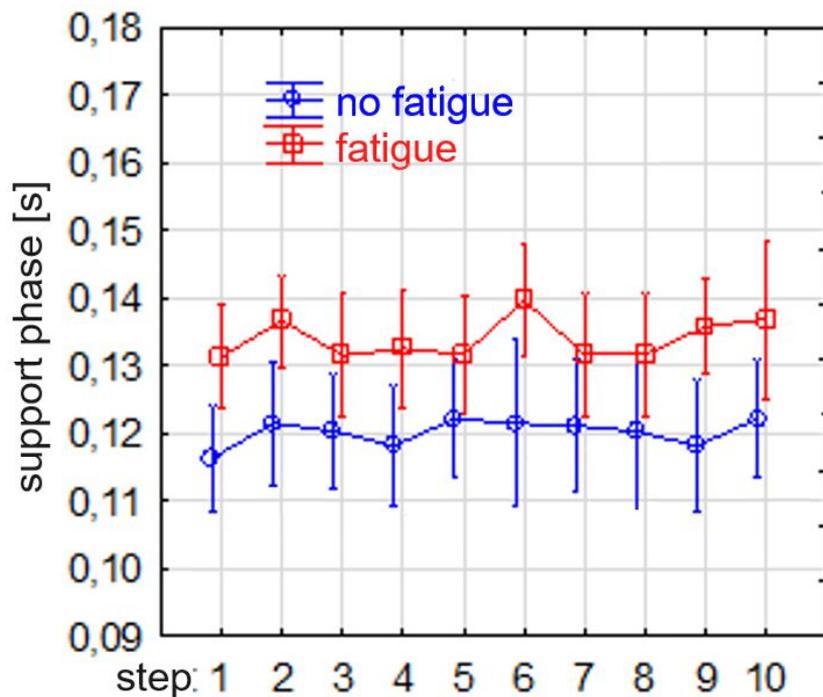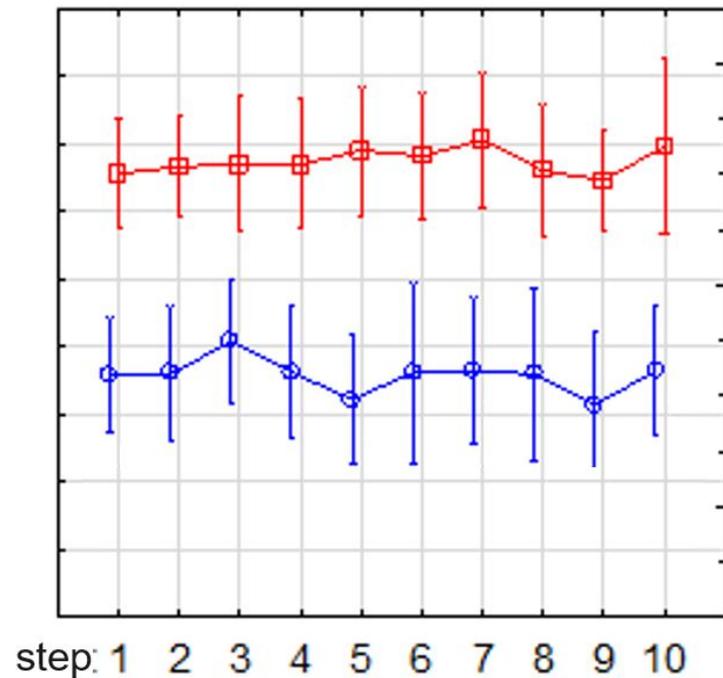# OptoJump placement on the track
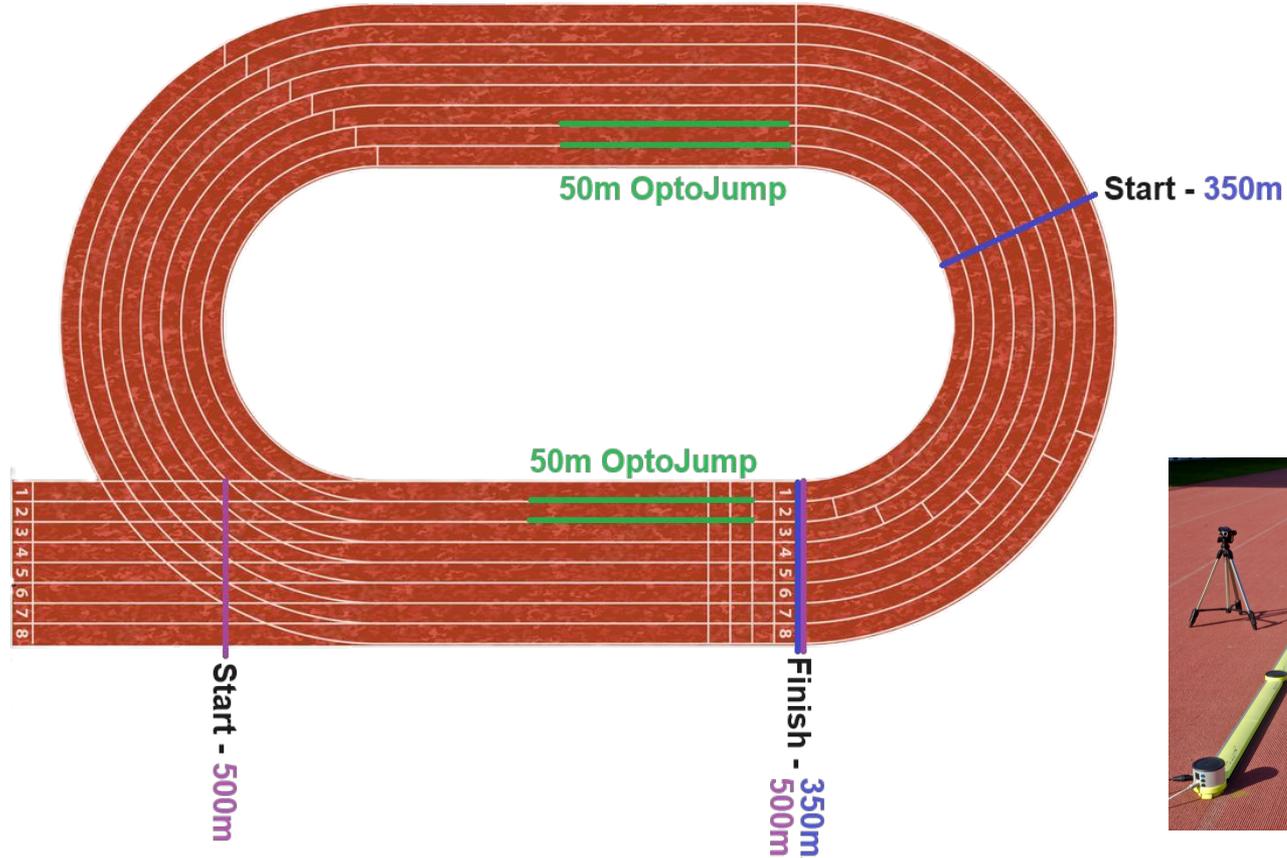
Blood lactate: 350 m vs 500 m

Support phase: 350 m vs 500 m

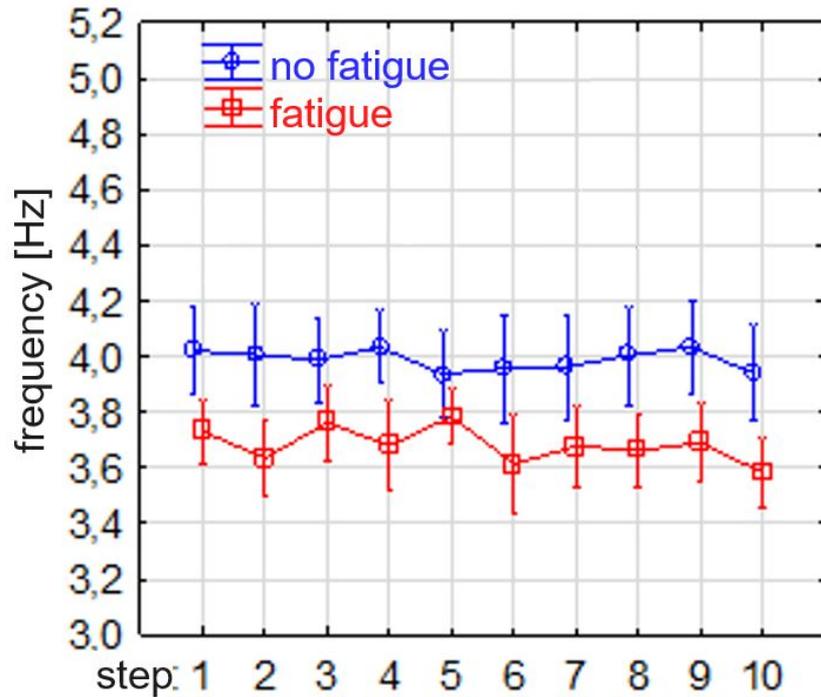Support phase: 350 m vs 500 m

Q&A