

**Exercise performance and thermoregulatory responses of elite athletes exercising  
in the heat: outcomes of the Thermo Tokyo study**

**Running heading:** *Exercise performance and thermoregulatory responses of elite athletes exercising  
in the heat*

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**Supplementary Table 1:** A fictive example of an individualized exercise protocol in the control and Tokyo condition. All athletes started at 100 W and after 3 min the initial workload was gradually adjusted (on the minute marks) to reach 70% of the athlete's maximal HR. When a stable target HR was reached (i.e. 70% HRmax), the workload was kept equal for the remaining minutes of the 20 min warm-up. At the 20 min mark, the incremental phase started and the workload (in W) was increased every 3 minutes by 5% of the workload corresponding to 70% HRmax until volitional exhaustion. The personalised exercise protocol (i.e. changes in workload over time) obtained during the control condition was subsequently applied to the second exercise test in simulated Tokyo conditions. The maximal heart rate in this example is 200 bpm.

		Control condition		Tokyo condition	
Phase	Minute	Heart rate (bpm)	Workload (W)	Heart rate (bpm)	Workload (W)
20 min warm - up phase	0	60	100	68	100
	1	65	100	73	100
	2	70	100	78	100
	3	72	110	81	110
	4	85	120	95	120
	5	95	130	112	130
	6	110	140	121	140
	7	123	150	135	150
	8	127	160	139	160
	9	129	170	148	170
	10	136	180	151	180
	11	139	190	154	190
	12	140	200	158	200
	13	141	200	161	200
	14	142	200	160	200
	15	141	200	162	200
	16	140	200	163	200
	17	142	200	164	200
	18	143	200	164	200
19	141	200	163	200	
Incremental phase	20	141	210	165	210
	23	142	220	168	220
	26	143	230	172	230
	29	148	240	176	240
	32	151	250	184	250
	35	156	260	191	260
	38	163	270	197	270
	41	171	280		
	44	178	290		
	47	182	300		
	50	187	310		
53	190	320			
56	193	330			
59	196	340			
Cool-down	1	165	75	174	75
	2	154	75	159	75
	3	138	75	143	75

Target HR reached

+ 10 W / 3 min

Volitional exhaustion

Volitional exhaustion