

Supplementary files:

Supplementary table 1: Balance, reaction time and flexibility of jockeys and track-work riders in Tasmania

Study factor	Jockeys (n=8)	Track-work riders (n=20)
Balance left (sec)		
Median	54.96	25.11
Mean (\pm SD)	69.75 (46.03)	76.77 (94.42)
Range	10.65, 123.45	4.21, 300.66
Balance right (sec)		
Median	57.39	32.14
Mean (\pm SD)	72.77 (35.45)	70.04 (76.81)
Range	36.66, 117.90	2.85, 202
Best reaction time (m.sec ⁻¹) ^a		
Median	171	154
Mean (\pm SD)	172.50 (15.28)	161.86 (14.70)
Range	156, 200	151, 191
Mean reaction time (m.sec ⁻¹) ^a		
Median	192.45	214.70
Mean (\pm SD)	204.37 (43.95)	213.66 (33.23)
Range	173.4, 291	175.4, 276.3
Flexibility (cm)		
Median	8.25	11.70
Mean (\pm SD)	9.48 (10.00)	9.73 (7.26)
Range	-4.50, 21.00	-10.50, 18.00

^a Subset of data (n=6 jockeys; n=7 track-work riders).

Supplementary table 2: Strength and muscular (alactic) power of jockeys and track-work riders in Tasmania

Study factor	Jockeys (n=8)	Track-work riders (n=20)
Unadjusted muscular strength measures		
Grip strength left (kg)		
Median	37.50	37.75
Mean (\pm SD)	41.44 (11.03)	40.70 (9.46)
Range	30, 64.5	28, 61
Grip strength right (kg)		
Median	37.25	40.00
Mean (\pm SD)	41.13 (14.98)	42.21 (8.35)
Range	24, 74.5	29, 59.5
Push strength (kg)		
Median	29.75	38.75
Mean (\pm SD)	33.63 (12.19)	37.90 (10.71)
Range	21, 50.5	13.5, 56.5
Pull strength (kg)		
Median	32.75	32.50
Mean (\pm SD)	32.00 (10.98)	31.23 (7.27)
Range	18, 54.5	12, 42.5
Leg/back strength (kg)		
Median	155.50	162.50
Mean (\pm SD)	173.63 (58.79)	171.50 (51.93)
Range	122, 305	86, 291
Muscular strength measures adjusted for body mass (kg)		
Pooled grip strength (kg.kg ⁻¹)		
Median	0.71	0.62
Mean (\pm SD)	0.74 (0.16)	0.62 (0.09)
Range	0.51, 1.05	0.47, 0.76
Push strength (kg.kg ⁻¹)		
Median	0.56	0.58
Mean (\pm SD)	0.61 (0.19)	0.57 (0.15)
Range	0.42, 0.87	0.28, 0.80
Pull strength (kg.kg ⁻¹)		
Median	0.60	0.48
Mean (\pm SD)	0.57 (0.15)	0.48 (0.15)
Range	0.36, 0.82	0.25, 0.76
Leg/back strength (kg.kg ⁻¹)		
Median	3.02	2.58
Mean (\pm SD)	3.12 (0.78)	2.53 (0.49)
Range	2.14, 4.60	1.51, 3.22
Muscular power		
Vertical jump height (cm)		
Median	35.50	27.50
Mean (\pm SD)	35.25 (5.80)	27.65 (4.31)
Range	26, 45	21, 36
Mean alactic power (W)		
Median	563.3	728.5
Mean (\pm SD)	657.76 (268.42)	726.73 (252.64)
Range	425.7, 1239.7	322, 1219.2
Mean alactic power (W.kg ⁻¹)		
Median	10.97	10.78

Mean (\pm SD)	11.11 (2.89)	10.70 (2.15)
Range	6.36, 14.53	7.02, 14.34
Peak alactic power (W)		
Median	5935.75	5913.95
Mean (\pm SD)	5986.68 (465.77)	5956.88 (430.11)
Range	5253, 6561	5370.3, 6800.9
Peak alactic power (W.kg ⁻¹)		
Median	108.16	87.02
Mean (\pm SD)	109.20 (8.50)	90.68 (13.50)
Range	98.96, 124.95	73.92, 127.64

Supplementary table 3: Anaerobic (lactic) and aerobic fitness of jockeys and track-work riders in Tasmania

Study factor	Jockeys (n=8)	Track-work riders (n=20)
Anaerobic fitness		
Mean power (W)		
Median	531.38	489.43
Mean (\pm SD)	527.14 (73.17)	493.18 (112.37)
Range	415.63, 655.80	302.03, 690.46
Mean power (W.kg ⁻¹)		
Median	9.65	7.63
Mean (\pm SD)	9.57 (0.82)	7.42 (1.37)
Range	8.21, 10.80	5.03, 9.38
Peak power (W)		
Median	700.00	637.00
Mean (\pm SD)	725.63 (161.81)	689.84 (166.00)
Range	557, 1055	438, 1053
Peak power (W.kg ⁻¹)		
Median	12.84	10.25
Mean (\pm SD)	13.07 (1.67)	10.38 (2.04)
Range	11.01, 15.91	5.9, 15.02
Total work (kJ)		
Median	15.38	14.68
Mean (\pm SD)	15.48 (2.28)	14.57 (3.63)
Range	12.46, 19.67	8.61, 20.71
Total work (Joules.kg ⁻¹)		
Median	283.74	228.88
Mean (\pm SD)	280.63 (20.87)	219.23 (45.40)
Range	246.42, 307.52	137.01, 281.30
Fatigue index (%)		
Median	34.64	40.02
Mean (\pm SD)	37.51 (11.73)	40.81 (9.29)
Range	20.77, 55.5	21.79, 54.67
Aerobic fitness		
VO ₂ (ml.kg ⁻¹ .min ⁻¹)		
Median	49.97	40.87
Mean (\pm SD)	48.55 (5.75)	43.18 (8.41)
Range	41.32, 58.56	32.76, 61.05