

Supplementary Table 1. Changes in the systolic and diastolic blood pressures (SBP and DBP), heart rate (HR), and rating of perceived exertion (RPE) during blood flow restricted (BFR) cycling training

Week	Rest		5 min	10 min	15 min	20 min	25 min	30 min
				BFR		BFR		BFR
SBP (mmHg)	1	109.9 ± 4.8	156.8 ± 7.8	168.0 ± 8.5	155.7 ± 8.0	169.0 ± 8.8	153.1 ± 7.7	168.6 ± 8.8
	2	111.0 ± 4.0	165.0 ± 9.0	183.2 ± 11.6	163.2 ± 8.9	177.4 ± 11.4	162.9 ± 11.3	180.1 ± 11.4
	3	104.9 ± 3.2	172.6 ± 11.5	180.8 ± 8.8	162.9 ± 9.0	180.1 ± 9.8	166.4 ± 9.1	177.3 ± 9.4
	4	115.6 ± 3.5	169.8 ± 5.9	181.9 ± 7.8	167.6 ± 7.6	176.6 ± 8.4	160.8 ± 8.1	184.4 ± 9.4
	5	117.2 ± 2.1	180.9 ± 8.5	186.2 ± 9.7	174.1 ± 11.6	188.9 ± 8.4	174.7 ± 8.3	189.0 ± 7.5
	6	115.0 ± 3.4	161.3 ± 8.2	184.8 ± 10.8	169.0 ± 10.6	187.3 ± 9.9	166.2 ± 9.6	177.3 ± 9.1
	7	116.8 ± 3.5	185.4 ± 9.9	191.4 ± 9.0	174.1 ± 9.9	184.2 ± 8.7	169.4 ± 8.6	182.1 ± 8.6
	8	113.7 ± 3.7	179.6 ± 9.8	192.4 ± 10.4	176.0 ± 8.4	188.7 ± 9.9	170.8 ± 10.1	185.2 ± 9.1
	8-week average	113.0 ± 2.6	171.4 ± 7.8 *	183.6 ± 8.5 * ↑	167.8 ± 8.8 * ↓	181.5 ± 8.8 * ↑	165.5 ± 8.6 * ↓	180.5 ± 8.2 * ↑
DBP (mmHg)	1	66.2 ± 3.6	61.6 ± 5.1	62.1 ± 4.9	59.7 ± 4.8	64.9 ± 4.2	61.8 ± 4.5	65.8 ± 5.1
	2	67.2 ± 4.5	62.7 ± 3.6	69.1 ± 4.5	61.7 ± 4.5	68.3 ± 4.3	61.9 ± 3.6	68.7 ± 3.6
	3	65.7 ± 3.3	64.3 ± 3.0	67.8 ± 3.5	63.1 ± 3.4	67.0 ± 2.6	59.7 ± 3.2	64.7 ± 3.1
	4	63.8 ± 4.0	57.4 ± 3.8	65.8 ± 4.1	58.3 ± 4.5	65.6 ± 4.4	55.6 ± 3.4	67.6 ± 3.2
	5	62.7 ± 3.0	65.6 ± 3.1	71.1 ± 3.9	65.7 ± 3.4	68.1 ± 5.1	63.7 ± 4.4	64.8 ± 3.8
	6	70.9 ± 3.2	67.8 ± 4.8	73.3 ± 6.1	63.4 ± 5.3	71.1 ± 6.1	62.6 ± 4.6	68.9 ± 5.1
	7	66.4 ± 4.1	75.9 ± 5.5	76.8 ± 5.1	68.7 ± 5.2	71.1 ± 3.8	67.9 ± 4.1	70.6 ± 4.0
	8	62.9 ± 2.6	67.7 ± 3.1	71.6 ± 3.8	64.3 ± 3.7	72.0 ± 3.0	66.4 ± 3.4	68.8 ± 3.5
	8-week average	65.7 ± 2.8	65.4 ± 3.5	69.7 ± 4.0	63.1 ± 3.9 ↓	68.5 ± 3.6 ↑	62.4 ± 3.3 ↓	67.5 ± 3.4 ↑
HR (beats/min)	1	72.9 ± 3.3	128.8 ± 4.5	137.8 ± 5.1	137.9 ± 3.4	142.8 ± 5.4	135.7 ± 4.3	144.6 ± 5.4
	2	72.1 ± 3.4	127.7 ± 2.9	137.7 ± 4.3	135.2 ± 3.6	143.9 ± 4.4	137.2 ± 3.1	144.3 ± 4.9
	3	77.8 ± 3.8	138.4 ± 4.5	152.4 ± 5.8	147.4 ± 5.0	158.0 ± 5.7	152.1 ± 5.1	160.0 ± 6.1
	4	72.1 ± 2.5	130.9 ± 2.8	142.3 ± 5.0	137.4 ± 3.5	147.3 ± 4.7	139.2 ± 3.6	149.9 ± 4.9
	5	70.3 ± 3.2	135.2 ± 3.4	149.7 ± 4.3	143.2 ± 4.6	154.7 ± 5.1	147.4 ± 4.4	160.2 ± 4.4
	6	73.4 ± 2.7	131.2 ± 5.6	149.0 ± 4.3	147.6 ± 4.9	159.1 ± 5.3	151.1 ± 4.7	161.8 ± 5.7
	7	76.0 ± 3.5	148.3 ± 3.5	162.7 ± 5.3	156.7 ± 5.2	168.2 ± 6.1	162.3 ± 4.9	173.0 ± 5.9
	8	72.3 ± 3.3	145.2 ± 3.3	159.6 ± 4.1	155.2 ± 4.4	166.7 ± 5.0	159.0 ± 4.6	168.1 ± 5.0
	8-week average	73.4 ± 1.7	135.7 ± 2.8	148.9 ± 4.3 *	145.1 ± 3.9	155.1 ± 4.8 *	148.0 ± 3.9 *	157.7 ± 4.8 *
RPE	1		10.6 ± 0.7	12.1 ± 0.8	11.2 ± 0.7	13.0 ± 0.8	11.9 ± 0.8	13.4 ± 0.9
	2		11.1 ± 0.7	13.1 ± 0.8	11.7 ± 0.7	13.9 ± 0.8	12.0 ± 0.8	14.3 ± 0.9
	3		11.6 ± 0.6	14.2 ± 0.7	12.7 ± 0.5	14.9 ± 0.4	13.2 ± 0.4	15.6 ± 0.5
	4		11.3 ± 0.6	14.1 ± 0.5	12.4 ± 0.6	14.7 ± 0.8	13.3 ± 0.7	15.1 ± 0.8
	5		11.8 ± 0.8	14.1 ± 0.7	13.0 ± 0.8	15.1 ± 0.9	14.0 ± 1.0	15.6 ± 0.9
	6		11.9 ± 0.5	14.4 ± 0.6	12.8 ± 0.5	15.4 ± 0.6	14.0 ± 0.6	16.3 ± 0.6
	7		12.0 ± 0.7	14.2 ± 0.8	13.1 ± 0.7	15.8 ± 0.5	14.4 ± 0.6	16.8 ± 0.8
	8		11.9 ± 0.5	14.6 ± 0.8	13.1 ± 0.6	15.4 ± 0.7	13.4 ± 0.6	16.2 ± 0.8
	8-week average		11.6 ± 0.6	14.0 ± 0.6	12.6 ± 0.6	14.9 ± 0.6 ↑	13.4 ± 0.6	15.5 ± 0.6 ↑

We calculated the 8-week average SBP, DBP, HR, and RPE of each subject at rest, and 5, 10, 15, 20, 25, and 30 min during exercise, for statistical analysis. RPE was evaluated only during exercise. Since a repeated-measures one-way analysis of variance or Friedman test showed significant effects of the training with BFR on all the parameters ($P < 0.05$, $\eta_p^2 > 0.31$, Kendall's $W > 0.88$), Bonferroni's or Dunn's multiple comparisons test was performed. Values are expressed as mean ± SE (n = 9).

*Significant difference compared to the rest. ↑Significant increase from non-BFR to BFR ($P < 0.05$). ↓Significant decrease from BFR to non-BFR ($P < 0.05$).