

**Table S4:** Change in flow in the right internal carotid artery (RICA), left internal carotid artery (LICA), right vertebral artery (RVA) and left vertebral artery (LVA) at rest, change from rest to hypercapnia and change from rest to exercise. Units in millimeters per minute (ml.mm).

Case	Rest				Hypercapnia				Exercise			
	RICA	LICA	RVA	LVA	RICA	LICA	RVA	LVA	RICA	LICA	RVA	LVA
1	11.47	11.57	2.90	2.39	21.44	21.63	5.04	3.85	14.50	15.15	3.65	2.66
2	7.56	6.25	1.77	2.76	15.12	9.28	2.84	2.90	10.01	7.59	1.67	3.88
3	2.01	4.94	2.93	2.91	7.94	9.54	4.06	4.13	8.34	8.40	4.41	1.39
4	6.52	8.00	1.76	3.53	8.22	14.06	2.59	4.32	9.12	10.38	1.67	4.52
5	1.92	9.18	2.29	2.62	8.68	15.54	4.27	4.46	9.07	13.25	2.61	4.22
6	1.69	8.37	2.84	3.82	10.36	13.27	3.44	4.53	7.46	*	*	1.83
7	4.75	7.58	3.20	0.73	10.91	8.33	3.82	1.38	6.95	7.02	4.78	1.50
8	6.94	7.40	1.22	10.41	8.97	10.60	1.97	3.48	6.51	11.04	1.20	4.39
9	7.95	4.59	2.56	1.93	8.76	7.63	4.07	2.86	5.86	5.38	2.89	2.12
10	5.42	6.72	1.34	2.42	10.09	7.57	2.59	2.95	6.60	6.11	1.94	2.40
11	6.28	10.05	1.41	2.34	11.09	12.78	2.34	3.16	9.72	11.86	1.03	3.40
12	6.46	10.41	1.41	2.17	9.34	10.01	1.70	3.57	8.84	10.50	2.16	3.04
Mean	5.75	7.92	2.14	3.17	10.91	11.69	3.23	3.47	8.58	9.70	2.55	2.95
SD	2.86	2.14	0.73	2.41	3.83	4.07	1.04	0.90	2.31	3.08	1.26	1.13

RICA=right internal carotid artery, LICA=left internal carotid artery, RVA=right vertebral artery, LVA=left vertebral artery.

\* Measurements were not possible in these regions