SUPPLEMENTARY MATERIALS

Supplement to: Sathe KP, Sathe A, Shenoy S. Effect of acute high-intensity intermittent exercise on choice reaction time and its related prefrontal cortex hemodynamic change. Trends Sport Sci. 2026;33(2):179-192. https://doi.org/10.23829/TSS.2026.33.2-8

Table S1. Comparison of oxy- and deoxy-Hb concentrations after FDR correction between the HIIE and control groups

Dependent variable	*p* value	*q* value	$q < 0.05$?
Oxy_RT_DLPFC	2.092e-08	6.479e-08	Yes
Oxy_RT_VLPFC	2.160e-08	6.479e-08	Yes
Oxy_Rt_FPA	1.664e-07	3.328e-07	Yes
Oxy_Lt_DLPFC	8.980e-01	8.980e-01	No
Oxy_Lt_VLPFC	5.151e-01	6.181e-01	No
Oxy_Lt_FPA	1.145e-05	1.717e-05	Yes
Deoxy_Rt_DLPFC	3.551e-21	1.065e-20	Yes
Deoxy_Rt_VLPFC	1.674e-25	1.004e-24	Yes
Deoxy_Rt_FPA	6.587e-07	1.317e-06	Yes
Deoxy_Lt_DLPFC	1.004e-02	1.506e-02	Yes
Deoxy_Lt_VLPFC	1.887e-02	2.264e-02	Yes
Deoxy_Lt_FPA	3.946e-01	3.946e-01	No

Note: After FDR correction across the six oxy-Hb ROIs, effects in the right DLPFC, right VLPFC, right FPA, and left FPA remain significant, whereas the left DLPFC and left VLPFC do not survive correction. For deoxy-Hb, after FDR correction across the six ROIs, all regions remained significant except the left FPA.

Table S2. Comparison of oxy- and deoxy-Hb concentrations after FDR correction between the pre- and post-sessions

Dependent variable	*p* value	*q* value	$q < 0.05$?
Oxy_RT_DLPFC	9.491e-03	1.139e-02	Yes
Oxy_RT_VLPFC	8.603e-01	8.603e-01	No
Oxy_Rt_FPA	1.490e-10	5.272e-10	Yes
Oxy_Lt_DLPFC	8.778e-03	1.139e-02	Yes
Oxy_Lt_VLPFC	1.757e-10	5.272e-10	Yes
Oxy_Lt_FPA	2.781e-04	5.562e-04	Yes
Deoxy_Rt_DLPFC	3.391e-01	5.087e-01	No
Deoxy_Rt_VLPFC	7.545e-01	7.545e-01	No
Deoxy_Rt_FPA	4.487e-27	2.692e-26	Yes
Deoxy_Lt_DLPFC	4.762e-01	5.714e-01	No
Deoxy_Lt_VLPFC	8.964e-03	1.793e-02	Yes
Deoxy_Lt_FPA	4.134e-09	1.240e-08	Yes

Note: After FDR correction across the six oxy-Hb ROIs, all regions remained significant except the right VLPFC. After FDR correction across the six deoxy-Hb ROIs, the right FPA, left VLPFC, and left FPA remained significant, whereas the right DLPFC, right VLPFC, and left DLPFC did not survive correction.

Table S3. Comparison of choice reaction time and motor time between pre- and post-session of the control and HIIE groups

		Choice reaction time (milli sec.)	SD CRT	Directional consistency analyses	*t* value	*p* value	Cohen's *d*	Motor Time (milli sec.)	SD MT	Directional consistency analyses	*t* value	*p* value	Cohen's d
HIIE	Pre	409.2	39.68	92%	5.27	0.001	1.05 (large)	184.32	23.1	96%	4.396	0.003	0.88 (large)
	Post	350.72	36.84					138.88	22.88				
Control	Pre	400.8	32.04	72%	−0.547	0.601	−0.11 (very small)	190.76	21.52	64%	−1.819	0.112	−0.36 (small to moderate)
	Post	396.76	36.09					189.2	29.33				

Note: The table above presents the comparison of mean values and standard deviations (SD) for choice reaction time (CRT), and motor time (MT), along with the corresponding t values, *p* values and effect sizes (Cohen's *d*).