

1 **Supplementary Material 7**2 **Table S7-1. Adverse Events.**

Event	No. (%) <sup>a</sup>	
	Circuits-based PAS group (n=21)	Sham PAS group (n=21)
Headache	3 (14.29)	2 (9.52)
Fatigue	2 (9.52)	1 (4.76)
Nausea	1 (4.76)	0
Dizziness	1 (4.76)	0
Unrelated medical problem	1 (4.76)	0
Insomnia	0	0
Anxiety/agitation	0	0
Unrelated accidents	0	0
Vomiting	0	0
Tinnitus	0	0
Migraine aura	0	0
Abnormal sensations	0	0

3 <sup>a</sup> Participants were queried at each trial about adverse events. The principal investigator  
4 determined whether a complication as related to the treatment of the present study. PAS: paired  
5 associated stimulation.

6 Within the circuits-based PAS group, four participants reported temporary discomfort, including  
7 mild headaches, dizziness, nausea, and fatigue, all of which subsided after rest. Notably, one case  
8 involved a subconjunctival hemorrhage post-trial, later assessed by an ophthalmologist as  
9 unrelated to the study, attributed instead to underlying medical conditions. In the sham PAS group,  
10 two instances of mild headaches and fatigue were reported, similarly resolving with rest. This  
11 detailed reporting ensures a transparent overview of the study's safety profile, emphasizing the  
12 mild and transient nature of reported symptoms.