Table 18. Acute	Intermittent Hypoxia (AIH)

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Author Year Country Research Design Score Total Sample Size	Methods	Outcome
Navarrete-Opazo et al. (2017a); Chile RCT <u>PEDro=4</u> Level 2 N=35	 Population: 35 participants with chronic and incomplete SCI; 31 males and 4 females; mean (± SD) age 41 (± 17) years; injury level C4 (n=1), C5 (n=3), C6 (n=6), C7 (n=2), T1 (n=1), T3 (n=2), T4 (n=1), T6 (n=3), T9 (n=3), T10 (n=1), T12 (n=4), L1 (n=3), L3 (n=3), L4 (n=1); AIS C (n=13) and AIS D (n=22); and mean (± SD) time since injury 53 (± 40) months. Treatment: Participants were randomly allocated into two groups: Experimental group (n=18): The intermittent hypoxia (IH) protocol consisted of 90sec of 9% O₂ interspersed with 90 sec of 21% O₂, 15 times a day, for 5 consecutive days, followed by IH three times per week for 3 additional weeks. Control group (n=17): The placebo protocol consisted of continuous normoxia (Nx) (21% O₂) for 45 min for 5 consecutive days followed by three times per week for 3 weeks. Following the IH/Nx protocol, all participants performed BWSTT for 45 min (for 5 consecutive days the first week and 3 times per week for 3 additional weeks). Outcome Measures: 10MWT, 6MWT, and TUG were assessed at baseline, day 5, weekly from weeks 2–4, and at a 2-week follow-up. 	 The interventions were well tolerated by all participants with no side effects being reported. Within-group and between- group comparisons showed that exposure to IH elicits a greater decrease in TUG time in IH group at all assessment points, but without significant differences (p>0.05).
Navarrete-Opazo et al. (2017b); Chile RCT PEDro=4	Population: 35 participants with chronic and incomplete SCI; 31 males and 4 females; mean (± SD) age 41 (± 17) years; injury level C4 (n=1), C5 (n=3), C6 (n=6), C7 (n=2), T1 (n=1), T3 (n=2), T4 (n=1), T6 (n=3), T9 (n=3), T10 (n=1), T12 (n=4), L1	 The interventions were well tolerated with no side effects being reported. Standing balance: There were no significant within-group MDs in jerkiness and absolute values of

Level 2 N=35	(n=3), L3 (n=3), L4 (n=1); AIS C (n=13) and AIS D (n=22); and mean (± SD) time since injury 52 (± 40) months.	root-mean-square of sway in either group. There were also no significant differences between groups.
	 described above in (Navarrete-Opazo et al. 2017a). Outcome Measures: Standing and dynamic balance was tested by the APDM Mobility Lab at baseline and at post-intervention: Instrumented sway (standing balance): Participants were instructed to maintain an upright standing position with arms crossed on the chest and heel-to-heel distance fixed at 10cm for 30 s. The instrumented sway measures included in this study were (1) normalized jerk: smoothness of sway from the time derivative of the lumbar's acceleration (normalized to the range of the sway trajectory's excursion and duration), and (2) root-mean-square of sway (m x s²) of the sway trajectory. Instrumented TUG test (dynamic balance): (1) duration of a 180° turn (s), (2) number of steps in a turn, and (3) turn-to-sit duration (s) were assessed. 	 Jynamic balance: a. Within-group comparisons showed that participants receiving IH plus BWSTT significantly reduced their median turning duration and turn-to-sit duration compared with baseline, whereas no significant change was observed in participants receiving Nx plus BWSTT. Between-group median comparison showed that the IH plus BWSTT group had a significantly faster turning duration and turn-to-sit duration than the Nx plus BWSTT group. b. Within-group comparisons showed that participants receiving IH plus BWSTT significantly reduced their median number of steps compared with baseline, whereas no significant change was observed in participants receiving Nx plus BWSTT. Between-group median comparison showed there was a mild, although statistically significant, greater median number of steps in the IH plus BWSTT group.