Author Year; Country Score Research Design Total Sample Size	Methods	Outcome
Wadsworth et al. 2012; Australia PEDro=4 RCT N=14	**Population:** 14 adults with recent complete SCI (C3-T1; mean (SD) age: 32(16), range 18-73. **Treatment:** Abdominal binder (AB) on/off while seated in an upright wheelchair, with three repeated measures at 6 weeks, 3 months, 6 months after commencing daily use of an upright wheelchair. **Outcome measures:** Forced vital capacity, forced expiratory volume, peak expiratory flow, max inspiratory and expiratory pressures, mean arterial pressure (MAP), max sustained vowel time, sound pressure level.	1. No statistically significant improvement in mean arterial pressure (MAP) with use of the abdominal binder. 2. Variable responses: MAP greater with the AB at the 1st and 3rd time points; MAP was less with the AB at the 2nd time point. 3. Measures of supine and seated blood pressure were taken (allowing diagnosis of OH) but this was not a key outcome. 7 occasions of OH found across subjects as indicated by systolic blood pressure changes; 4 had OH regardless of AB application and 3 had OH without the AB only.
Hopman et al. 1998a; The Netherlands PEDro=5 RCT N=9	**Population:** 9 males, 5 with tetraplegia, 4 with paraplegia; 8 complete, 1 incomplete. **Treatment**: 5 discontinuous submaximal arm ergometer exercise tests on different days at 20, 40 and 60% of maximum power output while: 1) sitting, 2) supine, 3) sitting plus an anti-G suit, 4) sitting plus stockings and abdominal binder, and 5) sitting plus FES of the leg muscles. **Outcome measures:** Oxygen uptake (VO_2), carbon dioxide output, respiratory parameters, HR, BP, stroke volume, cardiac output.	1. Both FES and anti-G suit increased BP in subjects with tetraplegia whereas binders and stockings reduced HR in those with tetraplegia 2. The interventions did not improve BP responses in subjects with paraplegia however FES and anti-G suit lowered HR.
Hopman et al. 1998b; USA PEDro=4 RCT N=9	**Population:** same subjects as above study. **Treatment:** 5 conditions as above except at maximal power output. **Outcome Measures:** VO_2, carbon dioxide output, respiratory parameters, HR, BP, stroke volume, cardiac output.	1. The supine posture increased peak VO_2 in subjects with tetraplegia, but reduced HR in subjects with paraplegia compared to sitting. 2. The relatively low pressure generated by stockings and bindings did not improve the venous system or cardiovascular responses during exercise. The positive circulatory benefits from FES and the anti-G suite observed in submaximal exercise (Hopman et al. 1998a) was not found for maximal exercise.
Helmi et al. 2013; The Netherlands Case report N=1	**Population:** 61-year-old male with C3/C4 traumatic SCI with symptoms of presyncope as a result of severe OH after 60° head-up tilt. **Treatment:** inflatable external leg compression (ELC); minimal ELC pressure to prevent OH (15 mmHg) found via tolerability test then applied in different positions (supine, 45°, and 60° head-up tilt). **Outcome measures:** external leg compression (ELC) pressure, mean arterial pressure (MAP), cardiac index, stroke volume index, heart rate, perfusion index (PI), peripheral tissue oxygen saturation (StO).	1. A 28% decrease in MAP when pressure decreased to 7 mmHg, below this level, dizziness rapidly occurred. 2. With the application of ELC 15 mmHg pressure during 45° and 60° head-up tilt: a. stroke volume index and heart rate were maintained with no presyncopal symptoms. b. global and peripheral perfusion parameters improved.

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Rimaud et al. 2012; France Pre-post N=9	**Population:** 9 SCI men (8 were highly-trained athletes who competed regularly at the national or international level); Level of lesion: >T6 (n=4), <T6 (n=5); age in yrs: 34±12 years; range 24-53; duration of injury: 10±10 years; range 2-34. **Treatment:** Two maximal wheelchair exercise tests with and without graduated compression stockings (GCS). **Outcome measures:** Heart rate variability (HRV): high frequency (HF), low frequency (LF), and LF/HF ratio; Norepinephrine (NOR) and epinephrine (EPI); BP, heart rate, max power output, oxygen uptake, stroke volume, cardiac output.	1. Increase in sympathetic activity and decrease in parasympathetic activity after maximal exercise in subjects when wearing GCS as shown by the increase in LF and decrease in HF components; results further supported by an enhanced sympathetic activity at rest in SCI, as demonstrated by a significant increase in noradrenergic response when wearing GCS. 2. When wearing GCS: LF increased significantly and HF_{post} decreased significantly leading to an enhanced LF/HF ratio and a significant increase in resting NOR.
Rimaud et al. 2008; France Pre-post N=9	**Population:** 9 men with chronic traumatic SCI, were divided into 2 groups: high paraplegia with lesion levels between T4 and T6 (n = 4), and low paraplegia with lesion levels between T10 and L1 (n = 5) **Treatment:** 2 plethysmography tests: with and without graduated compression knee-length stockings (GCS) at rest. **Outcome Measures:** venous capacitance (VC); venous outflow (VO); heart rate; blood pressure.	1. No significant difference in HR or BP for either group or either treatment. 2. In both groups, VC values were lower with GCS than without. 3. VC and VO did not differ significantly with or without GCS.
Krassioukov & Harkema 2006; Canada Prospective controlled trial N=20	**Population**: 6 subjects with complete tetraplegia; 5 with complete paraplegia; AIS A; 9 able-bodied controls. **Treatment:** With and without harness for locomotor training during supine, sitting and standing (within subject analysis). **Outcomes measures:** BP and HR.	1. Orthostatic stress significantly decreased arterial BP only in individuals with cervical SCI. 2. Harness application had no effect on cardiovascular parameters in able-bodied individuals, whereas diastolic BP was significantly increased in those with SCI. 3. Orthostatic changes in cervical SCI when sitting were ameliorated by harness application. However, while standing with harness, individuals with cervical SCI still developed OH.
Kerk et al. 1995; USA Prospective controlled trial N=6	**Population:** Chronic complete paraplegia. **Treatment:** Crossover design: with and without an abdominal binder. **Outcome Measures:** BP, HR, VO_2max, respiratory parameters, and wheelchair propulsion.	1. 5/6 subjects demonstrated a mean increase of 31% in forced vital capacity with binder compared to without, which was not significant but this may be because the sixth subject showed an 18% decrease in forced vital capacity when wearing the binder. 2. BP, HR, VO_2max increased significantly with increased exercise intensity and during maximal exercise, but these variables were not significantly affected by the use of the binder.