| Author Year; Country Score Research Design Total Sample Size | Methods | Outcome |
|---|--|---|
| Lopes et al. 1984 USA RCT Level 2 PEDro=2 N=12 | Population: 5 tetraplegia, 1 paraplegia; 6 controls. Treatment: Random assignment to active exercise (60 bilateral forearm flexion and extension movements per minute during the first and third minute of each tilt angle) versus no upper limb exercises during tilt from 0-70 degrees by 10 degrees increments at fiveminute intervals until BP dropped below 70/40. Outcome measures: BP, hypotensive symptoms. | No significant difference between the active upper extremity exercise group versus the non-exercise group with reference to orthostatic tolerance to progressive vertical tilt. |
| Otsuka et al. 2008 Japan Prospective controlled trial Level 2 N=30 | Population: 10 men with tetraplegia, age: 29±6 years who were on a wheelchair basketball team and had physical training for at least 2hr/day, 2 days/week, for 2 years; 10 untrained men with tetraplegia, age 32±6 years and 10 sedentary men without SCI, age 23±2 years were included as controls. Treatment: regular physical activity training Outcome Measures: HR, BP; electrocardiogram; autonomic nervous system activity in supine and 60° sitting position. | During supine rest, trained participants with tetraplegia had significantly lower HR than the controls without SCI. HR increased from supine to sitting position in trained and untrained participants with tetraplegia. Untrained participants with tetraplegia, but not trained participants with tetraplegia demonstrated significant orthostatic responses (increased sympathetic activity and reduced vagal activity). |
| Ditor et al. 2005; Canada Pre-post Level 4 N=8 | Population: Sensory incomplete (AIS B-C) cervical SCI (C4-C5). Treatment: 6 months of body weight-supported treadmill training (BWSTT). | Resting HR was reduced but no change in resting BP after BWSTT. BWSTT did not improve BP or HR during head-up tilt (HUT). |

| Author Year; Country Score Research Design Total Sample Size | Methods | Outcome |
|---|---|---------|
| | Outcomes measures: HR, BP, and orthostatic responses, heartrate variability. | |