

Author Year Country Research Design Score Total Sample Size	Methods	Outcome
<p>Sonenblum & Sprigle 2011a USA Observational N=45</p>	<p>Population: Mean age: 44.0 yr; Gender: males=33, females=12; Injury etiology: SCI=30, multiple sclerosis=4, cerebral palsy=4; Level of injury: cervical=29, thoracic=1; Level of severity: incomplete=15, complete=14, ineligible=1. Intervention: Wheelchair occupancy and seat position of participants were monitored for 1–2 wk using an accelerometer, occupancy switch and data logger. Outcome Measures: Type of wheelchair or cushion, Wheelchair tilt and recline angles, Uses of tilt-in-space, Wheelchair typical position, Tilt usage.</p>	<ol style="list-style-type: none"> 1. Complete wheelchair configuration was available for 38 participants, of which 29 could tilt their wheelchairs past 45°. On average wheelchairs were configured with approximately 100° of recline angle. 2. Tilt-in-space was used for relieving discomfort (77%), pressure relief (73%), rest and relaxation (66%), posture (48%), and function (61%). 3. Small and medium tilts were used more frequently than large and extreme tilts (p=0.000). 4. Year in a wheelchair was negatively associated with tilt frequency (p=0.047) and diagnosis of SCI was associated with greater tilt frequencies (p=0.043). 5. Participants with the ability to reposition spent significantly more time in a small tilt than those with no ability to reposition (p=0.030).
<p>Sonenblum & Sprigle 2011b USA Observational N=45</p>	<p>Population: Mean age: 45 yr; Gender: males=15, females=30; Wheelchair: power=100%; Injury etiology: SCI=30 multiple sclerosis=4, cerebral palsy=4, other=7. Intervention: Monitored wheelchair occupancy and tilt position (typical position; time spent in small (0°-14°), medium (15°-29°), large (30°-44°), and extreme (>45°) magnitude tilts; tilt frequency; pressure-relieving tilt (i.e., moving into >30° for minimum of 1 min) (PRT) frequency) for 1-2 wk. Outcome Measures: Data logger, accelerometer and occupancy switch.</p>	<ol style="list-style-type: none"> 1. 77% of patients reported using their tilt-in-space systems for comfort, discomfort, or pain, 73% for pressure relief, 67% for rest/relaxation, 48% for posture, and 61% for function. 2. Occupancy time median of 12.1 (range 4.1 - 24) hr/day. 3. Each participants' typical position utilized a tilt position (median=8°; range 0°-47°). 4. The median participant tilted every 27min, with PRTs performed less frequently (median participant performing one every 10h). 5. 81% of time for the median participant was spent in small tilt, 15% in medium, 1% in large and 0% in extreme tilt. 6. The size of tilt change (magnitude) for the median participant=70% small changes, 19% medium, 4% large and 0% extreme.
<p>Sonenblum et al. 2009 USA Observational N=16</p>	<p>Population: Median age: 46 yr; Gender: males=11, females=5; Injury etiology: SCI=10, Other=6; Median time since injury: 6 yr. Intervention: Wheelchair use for 2 wk. Outcome Measures: Self-report related to reason for using tilt, Electronic logging of tilt utilization, Daily wheelchair occupancy time, Typical position, Time spent at different tilt angles tilt frequency, Pressure relieving tilt (PRT) frequency.</p>	<ol style="list-style-type: none"> 1. Occupancy: mean of 11 hr/day, range 5.0-16.6; 6 subjects spent over 12 hr/day in wheelchair. 2. Typical position: 10 subjects spent a majority of time in less than 15° tilt, 5 of whom spent 90% of time in this range; 5 spent majority of time in medium tilt range. 3. Time spent in different degrees of tilt: eight reached an extreme tilt range. 4. Median frequency of 3.1 tilts/hr. 5. Tilt seldom used for performing PRT (median 1 PRT/7 hr).

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		<p>6. No significant difference in use based on self-reported purposes ($p > 0.10$).</p> <p>7. Subjects reporting use of tilt for PRT did not perform more PRT ($p = 0.60$) or use extreme tilts more than counterparts ($p = 0.67$).</p> <p>8. Only one subject performed ≥ 2 tilt/hr.</p>