## Tilt-in-Space Wheelchairs:
Benefits with Clinical and Functional Applications

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<tr>
<th>Benefit</th>
<th>Clinical &amp; Functional Application</th>
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<tr>
<td><strong>Pressure Relief</strong></td>
<td>Provide weight shift/pressure redistribution by increasing the seating surface area, and redistributing pressure away from critical areas under the pelvis. &lt;br&gt;Best accommodate position changes associated with pressure relief for those with limited hip and/or knee range of motion.</td>
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<td><strong>Positioning</strong></td>
<td>Facilitate supported posture for function by promoting gravity assisted positioning against the contours and supports of the seating system when tilted – even partially. &lt;br&gt;Allow accurate positioning following transfer into the chair by allowing caregiver adjustment of posture from the tilted position. &lt;br&gt;Allow effective repositioning in the course of the day. &lt;br&gt;Best accommodate shear displacement (sliding out of position) during position changes. &lt;br&gt;Best accommodate back cushions with lateral supports through minimizing shear displacement during position changes.</td>
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<td><strong>Orthopedic/Neurological Considerations</strong></td>
<td>Easiest accommodation of postural/orthopedic asymmetries and extremity contractures. &lt;br&gt;Promote absent to minimal triggering of abnormal muscle tone or reflex responses during position change for some. &lt;br&gt;Minimize some reflexive responses associated with position of the head (ATNR, STNR, TLR’s) through the increased head control of postural/proximal stability. &lt;br&gt;Muscle tone management - use of tilt allows: &lt;br&gt;  - Positioning for relaxation of high muscle tone. &lt;br&gt;  - Positioning to reduce fatigue associated with hypertonicity. &lt;br&gt;  - Positioning to inhibit some hypertonicity through increased postural support/proximal stability. &lt;br&gt;  - Positioning for stability/support with low muscle tone/hypotonicity.</td>
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<td><strong>Endurance</strong></td>
<td>Increase sitting tolerance in the course of the day. &lt;br&gt;Increase overall endurance for activities of daily living in the course of the day. &lt;br&gt;Positioning for comfort. &lt;br&gt;Positioning for pain management/pain relief.</td>
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| **Function**          | Provide postural/proximal stability, required for function.  
Increase U.E. function through increased proximal stability.  
Increase head control through improved postural support/proximal stability.  
Positioning to improve vision (line of sight).  
Enhance postural stability and balance when traversing challenging terrain.  
Positioning with anterior tilt can make transfers into the chair easier, safer and, in some cases, possible.  
Positioning for safer/easier swallowing due to relaxed muscle tone in the neck region.  
Positioning for feeding. |
| **Medical**           | Initial management of hypertensive episodes (Autonomic Dysreflexia) by immediately sitting the user upright.  
L.E. Edema management (if used with elevating legrests).  
Management of lower extremity pain & discomfort associated with edema (if used with elevating legrests).  
Reduce respiratory difficulty through decreasing pressure on the diaphragm while facilitating an extension of the spine/trunk.  
Allows use with ventilators. |
| **Caregiver Issues**  | Reduce attendant care required for some through easier management of weight shift /pressure relief, fewer transfers in and out of the chair in the course of a day, and overall increased sitting tolerance.  
Allow easier positioning for respiratory care for some.  
Allow easier positioning for bowel/bladder management for some.  
Allow positioning for toileting hygiene for some. |

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