

Ergo Lite 2 Tall Clinical Justification

Senior Caregiver

In scenarios where both the user and caregiver are elderly people, wheelchair design must prioritize injury prevention and simplicity. Selecting a lightweight frame, barrier-free transfer components, and intuitive brake systems effectively reduces cumulative musculoskeletal strain for the aging caregiver .

As elderly individuals' physical function declines (bone density, muscle strength, joints), the maximum single-piece lifting weight should be kept under 10 kg. **Lightweight wheelchair design** reduces the burden on caregivers during folding and transport, preventing cumulative musculoskeletal injuries from frequent handling.

Considering the user's decreased dynamic balance, **detachable swing-away footrest** eliminate obstacles from the transfer pathway, allowing the user to be positioned closer to the bed edge, reducing fall risk, and also reducing the risk of caregivers tripping over obstacles during assisted transfers.

Standard parking brakes require frequent forward bending to operate, increasing caregiver lumbar strain; for elderly caregivers with slower reaction times, emergency situations on slopes or sudden stops can cause center of gravity displacement, making it impossible to lock immediately. It is recommended to select the **push and pull brake system** that can be operated while standing upright, reducing reaction time while avoiding repetitive strain injuries.

Accessory / Feature	Clinical Application for Amputation
<p>S-Ergo Seating System</p>	<p>The S-curve design distributes some pressure at the ischial tuberosity to the thigh, achieving basic pressure relief. The design of the front seat higher than the rear assists with sitting positioning and reduces the risk of forward sliding.</p>
<p>Detachable Seat & Back Upholstery</p>	<p>Dual-layer cushion allows the outer cushion to be removed for cleaning while the base layer maintains basic support function. This addresses hygiene challenges in long-term care, reducing the risk of skin infections caused by moisture and bacterial growth.</p>
<p>Foldable Backrest</p>	<p>The foldable backrest design reduces overall volume and allows handlers to keep the folded wheelchair closer to their center of gravity, helping to prevent lumbar and shoulder muscle injuries during carrying.</p> <p>Along with foldable frame, the volume allow the wheelchair to be easily transported. This enables elderly users to participate in family gatherings, medical appointments, follow-up visits, or outdoor activities, improving mental health and rehabilitation motivation.</p> <p>Minimum storage dimensions: 720 x 230 x 690 mm Mass of the heaviest part: 6.9 kg</p>
<p>Foldable Headrest</p>	<p>Provides a support platform for users with poor head/neck control or low muscular endurance, achieving postural stability and rest, reduces fatigue and improves sitting tolerance, thereby improving social activities and quality of life.</p>
<p>Detachable Swing-away Footrest</p>	<p>The entire support structure can be swung outward and detached. Swinging the legrests away allows the wheelchair to be positioned closer to the target surface (e.g., toilet or hospital bed), shortening the physical transfer distance and reducing risk for both the caregiver and the user.</p> <p>This standard legrest has slight knee extension angle, providing sufficient ground clearance.</p>

<p>Heel Loop</p>	<p>Offers firm heel support to prevent the foot from sliding off the footplate.</p>
<p>Quick-Release Rear Wheel</p>	<p>Separates transport weight into frame and wheels; after removing the rear wheels, the frame weight is reduced by approximately 3-4kg. This addresses the physical burden of excessive weight, reducing the effort of caregiving tasks. Reduces the wheelchair's folded volume and weight, providing easy vehicle transport.</p>
<p>Push & Pull Brake</p>	<p>Caregivers can lock the wheelchair while in the pushing position, reducing risks of lower back strain from repeatedly bending over to operate the brake lever, improving caregiver convenience and safety in wheelchair operation.</p>
<p>Ergo Anti-tipper</p>	<p>A single foot press locks the anti-tipper, preventing the wheelchair from tipping over; pressing again releases it, allowing tilting for curb climbing. Reduces the lower back strain on caregivers from repeatedly bending to adjust anti-tippers, increasing caregiving safety and convenience.</p>
<p>Reflective Side Guards</p>	<p>Provides additional visual warning for others during early morning, evening, or nighttime outdoor walks.</p>
<p>Net Bag</p>	<p>Provides portable storage space for users with foley drainage bag and/ or spare medications. During rehabilitation can be used to store detached legrests.</p>

**Crash Test Approved
(ISO 7176-19)**

Certified to ISO 7176-19, the frame is compatible with the four-point tie-downs and three-point seatbelts on a vehicle, absorbing energy upon impact while maintaining structural integrity to minimize injury risk.

Users can remain seated in the wheelchair when entering the vehicle. This minimizes the burden of transferring in and out of the vehicle during medical visits or travel, improving participation in daily and social activities.

Hook labels are clearly marked on the certified models, indicating correct tie-down positions, ensuring absolute stability during transit.



Clinical Justification for
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The clinical recommendations provided in this document are for professional therapists' reference only and should not replace individualized clinical assessment. The actual prescription should be determined by healthcare professionals based on the user's physical functions, home environment, and individual needs. Karma Medical reserves the right to change product specifications.

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