# To The Point
## Wheelchair Securement for Transport

Proper wheelchair securement is critical to ensuring the safety of patients, residents, clients, drivers, and staff during transportation. The gravitational forces that can be generated during events such as hard braking, rapid accelerations, harsh turns, or vehicle accidents pose a significant risk of injury for the wheelchair-bound passenger and other occupants of the vehicle. Whether in non-emergency medical transport, hospital shuttles, or ambulances, inadequate wheelchair securement can also result in vehicle instability, regulatory violations, and significant legal liabilities. Implementing an effective process to ensure securement devices are maintained and utilized appropriately helps minimize these risks. This document outlines the best practices and regulatory standards for safe wheelchair transportation.

### Regulations and Standards

Compliance with applicable regulations and standards is mandatory when transporting wheelchair users. Key requirements include:

- **Americans with Disabilities Act (ADA):** Transportation providers must offer accessible services, including designated securement areas with appropriate tie-downs and occupant restraint systems. Staff must be trained on securement procedures to minimize injury risk and maintain compliance.
- **Federal Motor Vehicle Safety Standards (FMVSS):** Standards 208, 209, and 210, enforced by the National Highway Traffic Safety Administration (NHTSA), govern seat belts and anchorage systems, ensuring that passengers using wheelchairs receive equivalent crash protection.
- **WC18/WC19 Standards:** WC18 governs the design and crashworthiness of wheelchair tie-down and occupant restraint systems (WTORS). WC19 requires that wheelchairs intended for use as seating in vehicles have integrated securement points and meet crash-test criteria.
- **National Highway Traffic Safety Administration (NHTSA):** It is recommended that wheelchair passengers be positioned facing forward during transit to enhance safety. Additionally, the use of crash-tested wheelchairs and securement systems is advised. NHTSA also highlights the importance of having emergency evacuation plans in place. It is important to ensure compliance with Federal Motor Vehicle Safety Standards (FMVSS) 403, which addresses wheelchair lift standards, and FMVSS 404, which pertains to vehicle installation standards.

### Risks of Improper Securement

Failure to properly secure wheelchairs exposes organizations and individuals to significant risks.

- **Battery-Powered Wheelchairs:** Heavy, battery-powered wheelchairs should be considered as these wheelchairs can exceed standard lift capacities and may require special handling protocols.
- **Emotional Distress:** Passengers involved in securement-related crashes may experience long-term psychological effects, including travel anxiety.
- **Environment Hazards:** Wet or icy conditions can make lifts and ramps slippery, increasing fall risks.
- **Increased Operational Costs:** Crashes can cause vehicle damage, increase insurance premiums, require costly repairs, and result in service disruptions.
- **Legal & Regulatory Liabilities:** Non-compliance can result in lawsuits, regulatory fines, reputational damage, and increased insurance costs.
- **Passenger Injury:** Wheelchair tipping, sliding, or ejection during sudden braking, acceleration, or sharp turns can cause severe injuries or fatalities.
- **Reputational Damage:** Frequent or severe incidents can erode passenger and community trust, impacting ridership and the organization's financial health.
- **Staff Injury:** Staff members may be injured by shifting wheelchairs or during emergency interventions inside unstable vehicles.
- **Vehicle Instability:** Improperly secured wheelchairs can affect weight distribution, leading to decreased handling, increased crash risk, or vehicle rollover.

## Best Practices

Implementing wheelchair securement best practices minimizes injuries, helps to protect against liability, and ensures safe, reliable transportation for wheelchair users.

- **Accessible Technology:** Invest in automated securement systems and monitoring technology to improve consistency and efficiency.
- **Communication:** Clearly explain the securement process to passengers, confirming their comfort and understanding. Encourage passengers and staff to report concerns or suggestions about the securement process.
- **Follow Manufacturer Guidelines:** Always adhere to both wheelchair and manufacturer's instructions regarding securement and weight limits.
- **Pre-Trip Protocols:** Double-check securement for each passenger before departure, adjusting as needed to ensure proper fit and safety. Complete a pre-trip safety briefing to inform passengers about expected movements and emergency procedures before each trip.
- **Routine Equipment Inspections:** Regularly inspect tie-downs, belts, lifts, ramps, and securement points for wear, damage, or malfunction.
- **Securement Checklist:** Implement a standardized, documented checklist to confirm all securement steps are completed before travel.
- **Staff Training:** Provide thorough, documented training on wheelchair securement techniques, restraint use, incident response, first aid, and emergency procedures. Require staff to refresh securement training annually or after any incident involving securement failure.
- **Use Approved Securement Systems:** Only use crash-tested, approved wheelchair tiedown and occupant restraint systems that are compatible with the wheelchair and vehicle in use. Secondary restraint systems (e.g., additional lap belts or shoulder harnesses) should be considered where appropriate.

## Wheelchair Ramps and Lifts on Vehicles

Vehicles equipped with wheelchair ramps or lifts must comply with Department of Transportation (DOT) and Americans with Disabilities Act (ADA) regulations. Lifts must have the following safety features:

- Roll-stop barriers
- Audible alarms
- Warning lights
- Pressure sensors to prevent operation if occupied improperly
- Safety interlock systems that prevent vehicle movement while the lift is deployed

Lifts must meet FMVSS 403 standards (lift design and safety) and FMVSS 404 standards (installation in vehicles). Installation must follow both lift and vehicle manufacturer specifications. Lifts and ramps must also meet minimum weight capacity standards based on their dimensions and usage. Regulations require that lifts accommodate both inboard (backward) and outboard (forward) boarding of wheelchair and mobility aid users.

## Resources

Motor Vehicle Record (MVR) Guide

Hired & Non-Owned Auto Risk for Healthcare

## Learn More & Connect

For more information on protecting your business, contact your local risk engineer, visit the Chubb Risk Consulting Library, or check out www.chubb.com/riskconsulting.