

Adaptive Equipment to Compensate for Impairments in Motor Performance

Category I: “Gadgets” that may assist mobility, comfort in the vehicle, or visibility

- The adaptive devices in this category are available via websites, catalogs, or in stores carrying automotive devices.
- To be in this category they do not directly interfere or alter the control of a moving vehicle.
- Items in this category do not require a Comprehensive Driving Evaluation and/or a prescription from a driving rehabilitation specialist.

A. Handybar® (transfers, driver or passengers)

1. Much like an arm on an armchair, this tool can be helpful for drivers, passengers and caregivers. It may reduce the work/stress on the person assisting with ingress/egress from a vehicle.
2. Precautions/concerns/limitation:
 - a. There are several manufacturers and styles. The “blade” style may be too wide to fit in some vehicle models.
 - b. Some advertise the additional utility to break windows and cut the seatbelt if necessary.
 - c. The device cannot be left in place; therefore it requires a convenient (in reach) and safe location for storage.

B. Ribbon or seatbelt Easy Reach Handle® (reach the seatbelt)

1. An option when reaching for the seatbelt is painful or difficult (particularly if this is a reason the seatbelt is not worn).
2. A piece of ribbon may be sufficient or they can purchase a gadget such as the “easy reach” adaptive device that attaches to the seatbelt.
3. Precautions/concerns/limitations:
 - a. Warn that any device must not interfere with the seatbelt in any manner. Closely note the placement and avoid any possible interference with the seatbelts function to freely retract and feed.

C. Plastic garbage bag or seat slide (transfers)

1. A plastic garbage bag is an inexpensive assist to sliding into place. (Commercially available products such as the seat slide are also available).
2. This can also be useful as a caregiver resource.
3. Precautions/concerns/limitations:
 - a. Once in the seat the bag creates a slippery surface. Recommend that it be removed when vehicle is in motion.

D. Leg lifter (transfers, pivot into the seat)

1. A loop is placed over foot to assist in “lifting the leg” into the vehicle.
2. Manually show how to assist pulling the leg into the vehicle by pulling on pant leg or lifting thigh.

E. Key holder (decrease pain/trauma with turning key)

1. Generally inexpensive and available in various styles and designs.
2. Precautions/concerns/limitations:
 - a. Consider placement of ignition to be sure the key holder does not interfere.

Category II: Devices readily available but may interfere with vehicle safety devices.

- Consumers need to be well informed of the pros and cons when choosing to use devices in this category.
- There are no current “guidelines.” Referral to an occupational therapist or driving rehabilitation specialist may be justified for offering guidance in this purchase.

A. Wedge cushion (seat height to raise line of sight, check impact on reach to pedals)

1. Variables include the quality of foam (firm, stable) and shape. Determining the benefit of the shape, wedge or block style cushion, will depend on the person’s needs and the contours of the vehicle seat.
2. Precautions/concerns/limitations: Any cushion may impact the ability to reach the pedals. Cushion material should be as firm as possible. Material that easily flattens may contribute to “submarining” under the lap belt in the event of a crash.

B. Mirrors (additional side, rearview and panoramic options)

1. Many versions of clip on and stick on mirrors are available to expand the peripheral field of view for the driver. Some drivers report that they are effective while others may report that they distort or distract.
2. Precautions/concerns/limitations: a mirror clipped to the rearview mirror may break off and become a projectile in a crash.

C. Pedal Extenders (built up pedals for short statured drivers)

1. Many versions. Professional installation important for proper placement and secure attachment.
2. Lack of consensus if this equipment should require a driving evaluation and prescription.

Category III: Adaptive Equipment requiring evaluation, prescription and professional installation

- Explore a full array of equipment options at The National Mobility Equipment Dealer’s Association www.nmeda.com.
- The Comprehensive Driving Evaluation report will generate individualized recommendations and equipment prescriptions. This evaluation should be neutral to vendor and equipment brands.
- Adaptive equipment does interfere with the Original Equipment Manufacturer (OEM) and must be properly installed, inspected, and the driver trained in its use. (NMEDA QAP)
- Many states require testing by the licensing authority and may place a restriction on the driver’s license.

A. Steering Knob (drive with one hand/arm)

Created by Elin Schold Davis,
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1. Evaluation determines need and ideal placement of device on the steering wheel.
2. Some states require this adaptation for one-handed drivers.

B. Left Foot Accelerator (manage gas with left foot when right foot unable/unreliable)

1. Requires comprehensive driving evaluation, professional installation and training.
2. Requires significant new learning, evaluation of cognition is essential.
3. Controversial. Some programs no longer install, yet many have used very successfully.

C. Hand Controls (control gas and brake with hands, nonfunctioning or unreliable lower extremities)

1. Requires comprehensive driving evaluation, professional installation and training.
2. Requires new learning, evaluation of cognition is essential.
3. Many models and configurations are available. Specialist will consider the driver's strongest abilities and the access (space) available in the driver's vehicle when recommending hand control model(s).

D. A wide range of specialized devices are available for primary (low effort steering, smaller circumference steering wheel) and secondary controls (blinker, wipers, etc.). Drivers experiencing pain, impaired reach, or diminished strength may benefit from modifications that bring control of the vehicle within their physical capabilities.

1. The Comprehensive Driving Evaluation will generate individualized recommendations and equipment prescriptions. The evaluation should be neutral to vendor and equipment brands.
2. Adaptive equipment does not interfere with the Original Equipment Manufacturer (OEM) and must be properly installed, inspected, and the driver trained in its use. (NMEDA QAP)
3. Many states require testing and place a restriction on the driver's license
4. Equipment and installation is costly. Refer to the driving evaluator with medical background, typically an occupational therapy practitioner, with professional training to understand the driver's medical condition and its progression.

Category IV: Vehicle Modification requiring evaluation, prescription and professional installation

- The Comprehensive Driving Evaluation is likely required to prescribe the complex components of vehicle modification. This evaluation should be neutral to vendor and equipment brands.
- Modification clearly interferes with the OEM design and should only be completed by certified vehicle modifiers. See www.NMEDA.com.
- Many states require testing by the driver licensing authority and may place a restriction on the driver's license for driver of a modified vehicle.
- Caregiver needs must be considered when discharging a senior with medical conditions that impact mobility, ability to transfer into vehicle, etc.

- Equipment and installation is costly. Refer to the driving evaluator with medical background, typically an occupational therapy practitioner, with professional training to understand the driver's medical condition and its progression.

A. Vehicle adaption may include wider doors, lowered floor for wheelchair access, or a proper securement system if driving from the wheelchair. Modifications to the vehicle can allow the driver to transfer and stow equipment.

B. Vehicle adaptation may consider both the needs of the client and caregiver. When the senior is now a passenger only, the caregivers may benefit from an adapted vehicle that supports successful transfers and transport of their passenger's mobility equipment. Equipment may ease the physical burden on the caregiver.

C. Transporting mobility equipment such as wheelchairs and scooters may be difficult. Some vehicles lack the space and access. Some scooter designs fold and lift easier than others. Some trailer style carriers may be too heavy for the vehicle, potentially interfering with vehicle function and control.

Resources

Many of these items are available on Amazon, Walmart, CVS, etc. Websites are offered here as examples, but are not to be considered as a recommendation.

1. Handybar (transfers, driver or passengers)

- Search: Handybar car transfer
- Handybar is the original developer's brand. The metal tip is slim and fits most vehicles. Watch for blades or other designs that may not fit the majority of vehicles.

<https://stander.com/product/3001-handybar/>

2. Ribbon or seatbelt Easy Reach Handle (reach the seatbelt)

- Search: Seat Belt Pull or Grabber
- <https://www.arthritissupplies.com/easy-reach-seat-belt-handle.html>

3. Wedge cushion (seat height)

- <https://www.amazon.com/As-Seen-Solution-Orthopedic-Cushion/dp/B00H5VRCEE>
- Purchase at several home goods stores
- Prices vary due to style, coverings, foam density and quality. Recommend dense foam understanding it is likely more costly.

4. Mirrors (instructions re: "how to adjust" is adequate)

- <https://www.autoguide.com/the-10-best-blind-spot-mirrors-and-why-you-need-them>
- Use your professional judgment if choosing to include sample mirrors in your CarFit demonstration kit. Some are concerned that interior mirrors could break loose in a crash. Proper installation and training in their use is essential to optimally benefit from ancillary mirrors.

5. Garbage bag or seat slide (transfers)

- Car Seat Slide <https://abledata.acl.gov/product/car-seat-slide>
- Garbage bags or silky scarves offer a temporary solution such as following hip surgery.

6. Leg lifter (transfers)

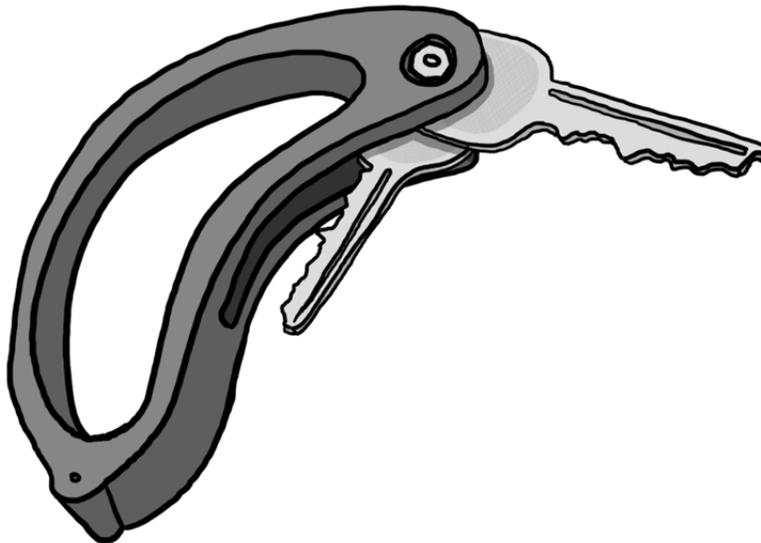
- <https://liveoakmed.com/products/rigid-leg-lifter>
- Select version with stiff loop at one end for ease in placing over foot.

7. Adjustable (built up) Key holder (decrease pain/trauma with turning key)

- Several style choices are available at <https://www.performancehealth.com/hole-in-one-key-holder>



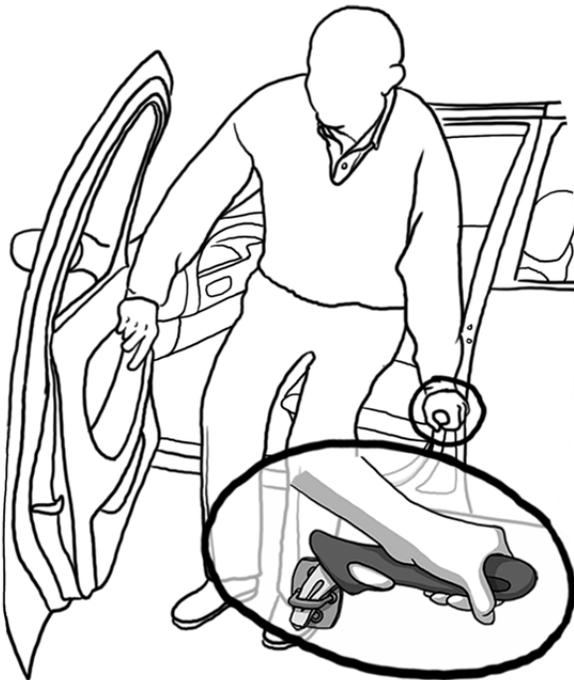
Leg Lifter



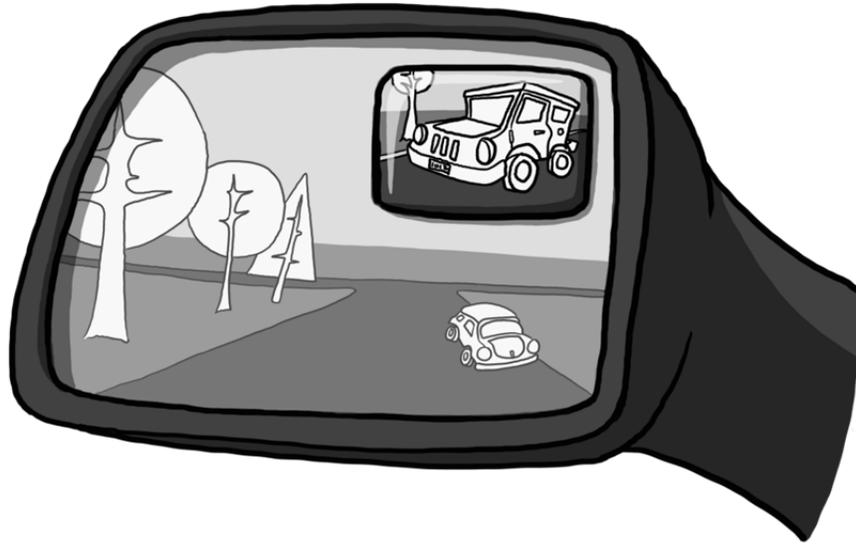
Key Holder



Easy Reach



Handy Bar



Button Mirror



Pedal Extender



Left Foot Accelerator



Steering Knob