ASIA
AMERICAN SPINAL INJURY ASSOCIATION

THE SCI TRAVELER

A GUIDE TO NAVIGATING BARRIERS TO DOMESTIC AND INTERNATIONAL TRAVEL

2022 EDITION

The SCI Traveler: Navigating Barriers to Domestic and International Travel

2022 Manual Update

We thank those who gave time and effort to this project for sharing their expertise willingly to enhance the lives of those with spinal cord injury or dysfunction. We would also like to thank all of the contributors to past versions of this manual.

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2022 EDITION

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INTRODUCTION: TRAVEL AND THE SCI POPULATION

For people with Spinal Cord Injuries (SCI), travel was reported as the most disrupted social activity since their injury with only 4% of people living with SCI choosing it as part of their leisure activities (Carpenter et al 2007). People with disabilities (PwDs), however, have the same need and desire to travel as their non-disabled counterparts. They cite relaxation, escape and excitement, as well as enhancement of personal relationships as primary reasons for travel (Shi, Cole, Chancellor 2012). Furthermore, travel is one way to help PwDs re-integrate back into the community, promote independence, and improve overall quality of life (Yau et al 2004).

It is important, however, to understand the barriers to travel that prevent this population from participating in this activity. These can include a lack of accessibility of the built environment, lack of or inadequate travel services, lack of spontaneity to travel requiring extensive planning and resources, as well as a systemic ignorance of the tourism industry towards travel needs of PwDs (Bi, Card and Cole 2007, Poria et al 2010, Shaw and Coles 2004, McKercher 2003). What is most concerning is that the simple act of getting out of the house once a week poses a challenge for this population of people. The National Spinal Cord Injury Statistics Center reports that 38% of people with SCI had not spent a night away from home in the past year, of which 25% did not get out of their house even once a week.

Thus, the process of becoming travel active does not only encompass the traditional concept of traveling to domestic or international destinations. Travel is the foundation of a successful transition and reintegration back to the community. The rhythm of daily life cannot function without it. For example, running errands to the bank or post office, going to the mall, and returning to school or work are all local forms of travel. While it can be a challenging endeavor, with appropriate research, planning and patience, it is feasible for PwDs to travel to the destination of their choosing – whether it is Paris, Hong Kong, or Rio de Janeiro or their local grocery store, movie theater, or even doctor's appointment.

This manual is created for novice SCI travelers as a starting point to explore the world. While it is intended to be a thorough resource, it is not meant to be an exhaustive one. This manual specifically highlights pre-travel preparations, emergency considerations, and the process of booking travel with a special focus on addressing durable medical equipment (DME) needs. It is organized with questions, resources, and travel tips that can be implemented for travel in local communities and around the world. The main goal is to help anticipate and navigate the challenges and barriers to accessible travel to encourage and inspire SCI individuals to become travel active.

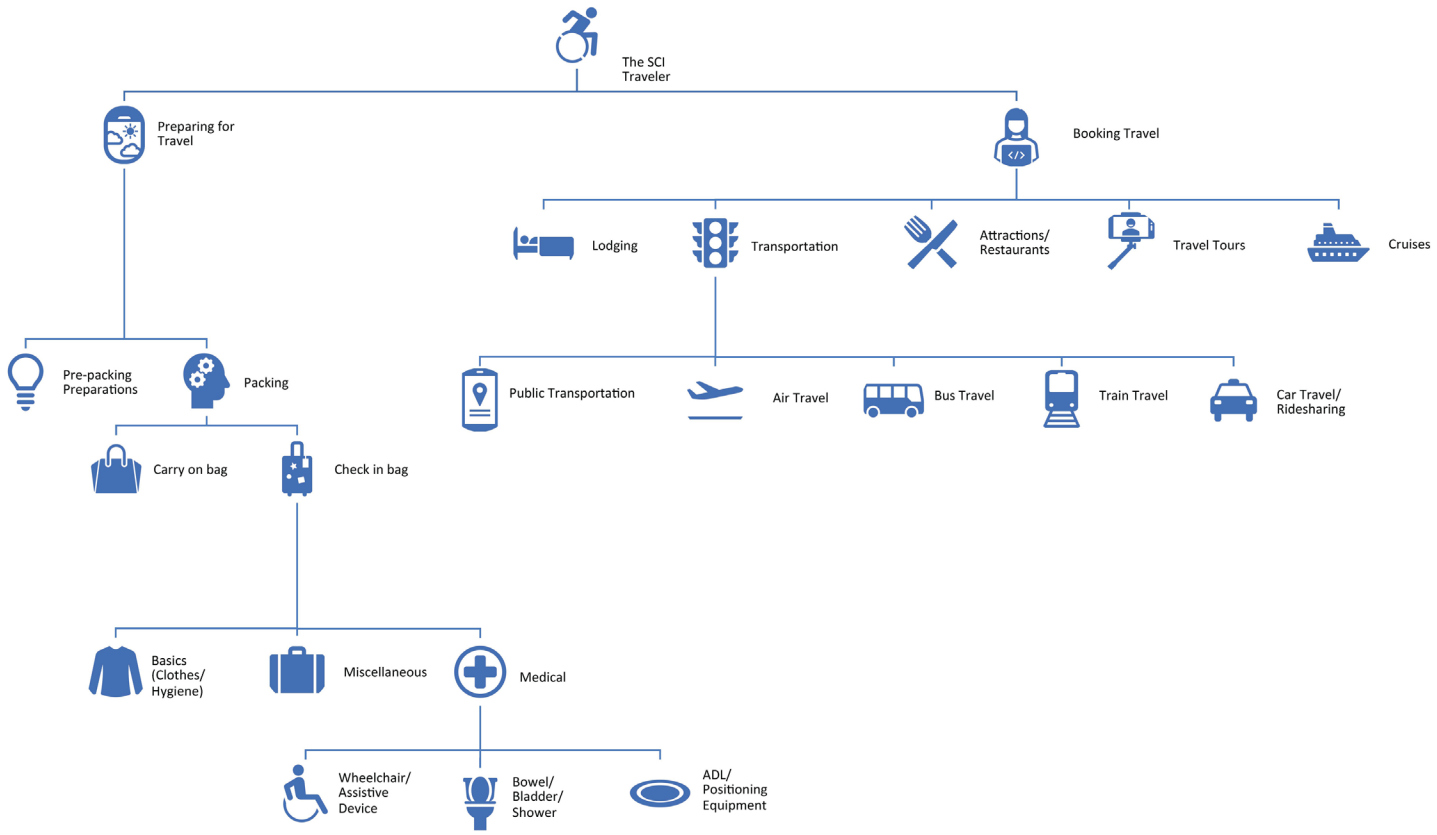


Figure 1: The SCI traveler manual - scope of information.

DISABILITY RIGHTS

DOMESTIC

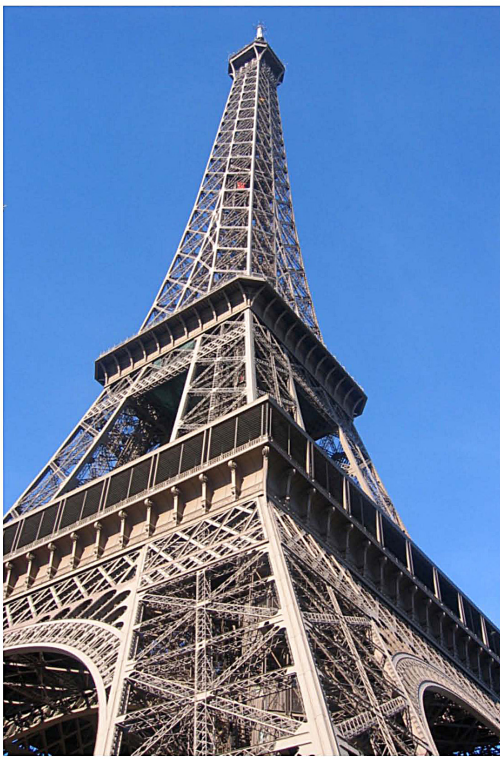
Whether traveling locally, domestically or internationally, PwDs should be aware of their legal rights. Ideally, this should be introduced as part of their rehabilitation journey prior to transitioning to the community. If not, learning disability rights should be one of the first things learned once discharged home. Knowing the provisions of these laws can mean the difference between a seamless and challenging travel experience. It can also help PwDs defend their rights at each stage of the travel process.

In the United States, the American Disabilities Act (ADA) of 1990 and the American Carrier Access Act (ACAA) of 1986 prevent discrimination against Americans with disabilities.The ADA allows equal opportunities for individuals with disabilities in employment, state and local government activities which includes transportation, recreation, and public accommodations like restaurants, hotels, recreation facilities, and retail stores. Public accommodations must comply with the ADA's architectural standards and prohibits exclusion, segregation and unequal treatment. Title III, in particular, requires accommodations to "remove barriers in existing buildings where it is easy to do so without much difficulty or expense given the public accommodation's resources." This law allows PwDs the freedoms to travel, work, live, and play in their communities and affords them access to resources on accessibility across the United States.

The Air Carrier Access Act of 1986, on the other hand, deals with air transportation. It prohibits discrimination from US and foreign carriers towards PwDs. The law covers requirements for boarding assistance, accessibility of airport facilities and the aircraft itself, including services on the aircraft, stowage of wheelchairs, mobility aids and other assistive devices, as well as training and administration provisions. The Department of Transportation requires all carriers operating an aircraft with 29 or more seats to train "to proficiency" all personnel who directly serve the traveling public. In addition, per the ACAA, carriers must return all assistive devices to the passenger in the same condition in which they are received, and must cover the cost of repair or replacing damaged and lost equipment. Airlines, also cannot require an individual to sign a waiver for damage or loss of a wheelchair or assistive device.

Travelers can find more information regarding the disability rights and anti-discrimination laws on the following websites:

- The ADA: https://www.ada.gov
- Disability Rights Education and Defense Fund: https://dredf.org/legal-advocacy/international-disability-rights/international-laws
- Department of Transportation: https://www.transportation.gov/airconsumer/disability
- The ACAA: https://www.accessiblejourneys.com/airlines/air_carrier_act_details.htm



From top left to right: Neuschwanstein Castle, Germany; Venice, Italy; Amsterdam, Netherlands; Paris, France.

INTERNATIONAL

Countries outside the USA may or may not have laws protecting those with disabilities especially during travel. There are several resources that provide specific information about each country's standards of accessibility. It is recommended that travelers familiarize themselves with this information prior to planning travel outside the United States.

- The U.S. Department of State International Travel- Country Information: https://travel.state.gov/content/travel/en/international-travel/International-Travel-Country-Information-Pages.html.
- The UN Enable website presents information on countries who have signed the United Nations Convention on the Rights of Persons with Disabilities (United Nations Department of Economic and Social Affairs, 2019): https://www.un.org/development/desa/disabilities/
- The Disabled Passenger Rights Guaranteed by the European Union is equivalent in scope to the Air Carrier Access Act of the United States and addresses non-discrimination towards PwDs, provides regulations on wheelchair assistance and DME as well as compensation for lost or damaged wheelchairs and assistive devices: https://www.reducedmobility.eu/disability-travel-by-air-breaking-down-eu-regulation-11072006.html.

PREPARING FOR TRAVEL

CREATE A PACKING CHECKLIST

One of the first steps to a stress free vacation for SCI individuals is to create a list of everything used on a day to day basis. The goal is to create a personalized travel checklist including basic items like clothes and hygiene needs, medications, and any SCI-related items. The newest and biggest change in packing for a trip is the consideration for the individual's mobility and ADL needs. This section primarily discusses different types of portable durable medical equipment, how to travel with DME, as well as precautions and troubleshooting tips while traveling.

BUILD A MOBILITY AND ADL NEEDS CHECKLIST

One of the most daunting tasks in preparing for travel is addressing any and all durable medical equipment. We recommend creating a packing checklist specifically dedicated to the day-to-day mobility needs to function as independently as possible. If any personal equipment is not travel accessible, there are options for portable durable medical equipment that can be bought or rented for the duration of the trip.

Because of the heterogeneity of the spinal cord injury population, assistive devices will vary depending on an individual's functional status. We provide the following list of equipment as a starting point, which can be edited as needed based on your travel plans and personal needs. This is not an exhaustive list, but covers what we consider to be basic needs with respect to Durable Medical Equipment (DME) and travel.

Wheelchairs	Other Assistive Devices	Transfer Aids
• Power wheelchair, cushion, charger • Manual wheelchair, cushion • Manual wheelchair, cushion, power add on system and charger	• Walkers / Rollators • Canes / Crutches • Lower extremity orthotic devices / Braces	• Transfer board • Gait / Transfer belt • Travel (Hoyer) lift
ADL Equipment	**Positioning Equipment**	**Miscellaneous Supplies**
• ADL Kit • Universal cuff / Upper extremity splints / braces • Modified utensils • Handy wiper • Leg Lifter • Bowel and bladder equipment (consider bringing extra supplies!)	• Harness belt • Wedges / Bolsters • Maxi slide • Travel bed rails	• Travel compatible batteries • Back up batteries for electric devices • Tool kit • First Aid kit • Medical information (including medical history as well as medication list)

Table 1: Basic DME for travel (Adapted from Tamayo, Zuziak, Conetsco, Zillich, Lash, Kuemmel, 2018)

DURABLE MEDICAL EQUIPMENT FOR TRAVEL

Traveling with DME is perhaps one of the more challenging aspects of travel for the SCI population. The thought of taking one's wheelchair, assistive device or any of the other equipment that have been aforementioned can be a cause of anxiety and a deterrent to travel. Many of the durable medical equipment, however, are portable! This section reviews these portable pieces of equipment and special considerations for DME.

Wheelchairs and Assistive Devices

For some SCI individuals, the biggest piece of equipment they may bring is their wheelchair. For others, it may be their walker, rollator, or scooter. Some may have customized or adapted parts. Perhaps the greatest cause of anxiety is an individual's wheelchair or assistive device breaking in transit or while at their chosen destination. Thus, we recommend knowing the model and serial number of one's device in case replacement parts need to be ordered online and delivered to the individual's particular destination. We also highly recommend that travelers contact their vendors for specific recommendations regarding the care of their wheelchairs. See the section on Preparing DME for Travel for more information.

Power Wheelchair

Manual Wheelchair

Power Assist

Transfer Aids

Portable transfer aids can be extremely helpful to have on hand during travel. We recommend keeping a gait/transfer belt or a portable transfer board in carry-on luggage for bus, air, or train travel, especially if travelers are unable to sit in their own wheelchairs and will need to transfer to a designated seat. Consideration should be given to size, equipment portability, and weight limitations for travel transfer aids. If looking to purchase a travel transfer board, we recommend looking for a lightweight but sturdy, and compact (i.e. easily packable) board.

For individuals who may need a Hoyer lift system, there are portable, foldable travel lifts available for purchase or for rent. Similarly to wheelchairs, these travel lifts have various components, and travelers should discuss with vendors regarding specific care of their equipment. Being familiar with the lift's parts and having information regarding replacements in case of damage will help in travel emergencies.

While we provide a few examples of transfer aids that PwDs may utilize, there are a variety of brands and types of transfer aids on the market. Here are some examples:

Portable Transfer Board
https://www.etac.com

Immedia E-Board. Etac R82, Inc.

- Available with wings along one side that can be bent up or down or as a compact board for more active and independent users
- Both boards come in two lengths (small and medium)
- Max weight of the user: 330 lbs

Transfer Gait Belt
https://www.etac.com

Transfer Belt Lifestyle Essentials

- Product Weight: 1 lbs
- Product Height: 0.5″
- Product Length: 30″
- Product Width: 2.5″
- Primary fabric is nylon with vertical and horizontal loop handles for easy and safe gripping

Portable Transfer Lift
https://www.etac.com

Travel Lift: MoLift Smart 150 Etac R82, Inc.

- This is one example of an electric, portable, light weight, agile patient lifter
- Product weight: 57lbs
- Max 330lbs weight capacity
- Max 66in lifting height
- Multiple lifting speeds
- Lightweight rechargeable battery (3 hours battery charge time)

ADL Equipment

Travelers can also consider bringing ADL equipment that they use on a daily basis. Most ADL equipment are already travel ready and fit in standard sized luggage. We include the following pieces of equipment for consideration while planning for travel. Many of these can be ordered online or procured at a medical supply store in case they break or need to be replaced.

Adaptive Utensils

Plate Guard

Adaptive Bowls

Leg Lifter

Dorsal Wrist Support with Universal Cuff

ADL Kit

Bowel / Bladder / Shower Supplies

These are portable options for bowel, bladder, and shower supply needs. Of note, many hotels have accessible bathrooms with built-in pieces.

Portable Travel Shower/Commode Chairs

https://www.nuprodx.com

Portable Tub transfer bench with carry-on luggage case.

- Product Weight: 20lbs
- Weight capacity: 300lbs
- Versatile design enables use with ADA compliant toilets and most bathtubs/showers
- Complies with Federal Aviation Administration (FAA) requirements for carry-on luggage (comes standard with unit)

Portable Roll-in shower chair with luggage case.

- Product Weight: 24lbs
- Weight capacity: 300lbs
- Design enables use over standard and taller ADA compliant toilets and can roll into barrier-free showers
- May be disassembled and fit into a FAA compliant carry-on bag (comes standard with unit)

All-in-one commode chair, tub access slider system with luggage case

- Product Weight: 42lbs
- Weight capacity: 300lbs
- Easy to change slide direction depending on bathroom configuration
- Fits over standard and taller ADA compliant toilets and fits into almost any bathtub
- Removable connector bridge to close shower curtain for privacy
- Designed for easy disassembly, can be packed into included roller carrying case

Positioning Equipment

Individuals who are traveling with poor truncal support may need to bring positioning devices like harnesses for transport, wedges, bolsters, and maxi slides. There are also portable bed rails for a more supportive sleep environment while traveling. Here are a few examples of portable positioning devices which can be obtained in a medical supply store or online:

Positioning Equipment
https://www.amazon.com

Inflatable Air Wedge
https://www.travelwedge.com

Portable Patient Transport Unit (Sheet)
https://www.grainger.com

Bed Rail Advantage Traveler
https://www.healthproductsforyou.com

Positioning Vest
https://www.vitalitymedical.com

Miscellaneous Supplies

Traveling with durable medical equipment requires special preparation for emergencies. Supplies to consider bringing include back up parts like batteries, special tool kits, and a first aid kit. This list can be modified based on an individual's experience with their DME.

Tool Kit	First Aid Kit
• Lubricant • Bolts / Screws • Screw driver • Duct tape • Heavy duty sewing kit (recommend a kit with larger needles to help repair thicker materials like slings) • Wrenches • Standard Allen keys • Metric Allen keys • Zip ties • Dycem mat / materials • Zip lock bags • Patch kits • Extra tubes • Cane tips • Cushion pump	• Gloves • Band aids • Antiseptic wipes • Straws • Medical tape • Instant and reusable cold compresses • Hand sanitizing gel • Saline solution • Blood pressure monitor • Thermometer • Pulse oximeter

Table 2: Miscellaneous travel DME (Adapted from Tamayo, Zuziak, Conetsco, Zillich, Lash, Kuemmel, 2018)

PREPARING DURABLE MEDICAL EQUIPMENT FOR TRAVEL

After deciding what equipment to take, the SCI traveler now has to prepare their equipment for travel. Part of maintaining a stress-free vacation is knowing how to handle DME before and during travel. In this section, we go over information on how to prepare DME for travel and for unexpected emergencies.

PwDs and their travel companions should be familiar with how each piece of equipment works. This includes the various components, what can and cannot be broken or replaced, and if applicable, how they can be disassembled and reassembled for travel. Contact the DME vendors for trouble-shooting tips and for information on how to procure replacement parts in case of breakage. Here are some questions to ask vendors regarding DME and travel:

WHEELCHAIR QUESTIONS

General Wheelchair Questions (applicable to manual / power wheelchair)	• What parts of my wheelchair can break? What are the most common parts of my wheelchair that can break? • What parts of my wheelchair can withstand the wear and tear of travel? • Are there environments I should avoid to prevent breakdown of my wheelchair parts? • What parts of my wheelchair can / cannot be replaced if it breaks? • How do I dismantle my wheelchair or parts of my wheelchair? • Are there any regular maintenance or precautions I should take with my wheelchair before travel? • What special information about my wheelchair should an airline know?
Power Wheelchair Questions	• What precautions should I take for any electrical components of my wheelchair? • Where can I get an extra battery? WIll insurance cover this expense? How do I install the battery? • What other electrical components can be replaced?
Vendor and Replacement Part Questions	• If a chair part breaks, can the vendor ship replacement parts to where I am going? • How long would it take to get replacement parts? • Are there suppliers, distributors, or vendor branches located where I am going that could help if my chair or parts of my chair malfunction? • Would the vendor be able to provide quick fixes/solutions if parts are unavailable? • Do you offer rental services if my chair is unsafe to use for the rest of my travel?
Warranty Questions	• What does the warranty cover on my chair? • What is NOT covered by my warranty? • What is the time period covered by my warranty? • Does my warranty apply outside of the state/country? • What is the warranty coverage on replacement parts ? • What types of things void the warranty? Are there any quick fixes that void the warranty? • Is preventative maintenance covered? Can the chair be taken in to ensure all parts are in appropriate working condition prior to travel?

PRE-TRAVEL PREPARATION:

Prior to leaving, there are safeguards and precautions that travelers should take to protect and reduce damage to their equipment. There are also special considerations with regards to packing DME, and traveling with specialized batteries and travel adapters for country specific electrical outlets. Here are some additional tips to do before travel:

- Examine all travel DME / adaptive equipment to ensure all parts are properly functioning and no pieces are missing.
  - Power / manual wheelchairs should go through a safety check by a wheelchair clinician.
  - If there are any pieces that need replacements, we recommend having this done prior to leaving.
- Take pictures of all travel equipment, especially manual / power wheelchairs.
  - This is helpful if equipment sustains any damage during travel.
- Remove any loose parts and cover or wrap any other parts that cannot be taken off for protection.
- Have the measurements of the manual or power wheelchair handy. Knowing this information can help travelers advocate for their needs when booking hotels, restaurants, and attractions. We recommend doing the same for any mobility device for ambulation. Travelers can adapt the table below for their own assistive devices and carry this in their wallet with their medical information.

Wheelchair Measurements		
Width of wheelchair (widest part of chair)	Manual:	Power:
Length of wheelchair (toes to furthest point on back of wheelchair)	Manual:	Power:
Knee height (floor to about one inch above knee)	Manual:	Power:
Total height with user sitting in wheelchair (floor to the tallest part of user)	Manual:	Power:
Total weight with user sitting in wheelchair (user + wheelchair)	Manual:	Power:

Table 3: Wheelchair measurements

DME Packing

- Remember to pack all durable medical equipment together. In 1986 the Air Carrier Access Act (ACAA) was signed. It states that all medical equipment can fly for free with no extra charge.
- Separate DME from other belongings during travel to avoid incurring extra fees. This is especially important if traveling by plane.
- To reduce any risk of damage, provide written instructions on how to handle equipment to transportation staff.
  - Attach these instructions directly to the DME.
  - If possible, travelers should speak directly to the individuals caring for their equipment during transport and provide verbal instructions in addition to written ones.
  - If traveling with a power wheelchair, there is a risk of damage with each check-in, so staying involved with the process is vital.
- If renting a vehicle, make sure to pack a disabled parking permit!

Battery Considerations

- If applicable, know the type of battery the wheelchair may require. Due to certain restrictions for travel (see General Airline Travel Tips), batteries may need to be disassembled prior to leaving and then re-assembled at the destination.

Electrical Outlet & Charging Considerations

- Know the electrical requirements for the power wheelchair to ensure compatibility with the destination's electricity setup.
- Make sure to have proper outlet adapters and voltage transformers or procure a battery charger that works with the host country's electricity.

Carry-On Considerations

- Traveling has its own hazards, and losing luggage is one of them. In addition to an individual's personal effects and travel documentation we recommend that carry-on luggage includes the following items:
  - Medications / Insurance cards (We recommend keeping medication in clearly labeled bags and in their original containers if possible. Otherwise, make sure to keep a list with dosage and frequency for emergencies.)
  - Emergency contact information
  - Extra change of clothes including underwear, socks, and Depends (We recommend packing about 3-5 days worth with more underwear than outerwear.)
  - First Aid Kit
  - Hygiene Kit and extra bowel / bladder supplies (3-5 days worth)
  - Splints / wheelchair cushion / portable positioning equipment
  - Cell phone / laptop and respective chargers
  - Extra batteries
- Consider using packing cubes which allows travelers to pack more due to the added compression and keeps belongings organized.
- Take extra precaution as PwDs are unfortunately a target for thieves and pickpockets. Any personal effects should be in secure travel bags with zipper clips, locks, cut-resistant straps, and hidden pockets for more valuable items.
- Consider the type and size of luggage or backpack to use as a carry-on. Luggage with spinner wheels can be fastened to a wheelchair for easy towing, and backpacks can easily be secured onto a wheelchair.

EMERGENCIES

Planning for emergencies during travel is enough to cause anxiety even before the vacation starts! DME emergencies can certainly lead to headaches, and it is important to remain flexible. Add extra time in case things do not go as planned. Remember that quick fixes may require some creativity. Check out our trouble-shooting section for more ideas. Here are some other suggestions to help in cases of emergencies:

Repairs

- Identify the nearest wheelchair or bicycle repair shop in case equipment breaks.
- Vendors may be able to provide information on replacement parts while traveling or locations of domestic / international branches that can help with potential repairs.
- Nearby medical supply stores may also be able to provide assistance.

Troubleshooting

- Assemble an emergency kit of frequently broken or worn parts and tools (lubricant, bolts, wrenches, Allen keys, duct tape, patch kits, extra tubes, cane tips, extra stump socks, or shrinkers etc). If traveling to rural areas or developing countries, parts and repair may be expensive, or even impossible. Learning to do simple fixes is important to making trips stress free.
- Trial temporary fixes prior to travel with an emergency kit as some destinations may not have nearby repair shops or resources to address issues with DME. Having a toolkit handy can help with quick and safe fixes until returning home for a more permanent solution.
- Travelers can ask their vendors or even their therapists for troubleshooting solutions as well.

Other Resources

- Some of the best resources are fellow wheelchair users who have experience with travel. Connect with your local SCI chapter / support group and ask for any suggestions on how they managed traveling with their equipment.
- There is also a large and helpful online wheelchair travel community. They share firsthand experiences of their travels with DME, and some may even offer guides! Use social media platforms like Instagram, Facebook, Youtube, or even Google to find blogs and web pages from a variety of wheelchair travel influencers.

RENTING AND ADVANCED DELIVERY OF EQUIPMENT

If packing all necessary equipment seems like an impossible and anxiety inducing task, there is the option of renting medical equipment to make the traveling process a little easier. DME can be rented from medical supply stores or national and local medical equipment agencies. In addition, hotels and cruises may have available equipment. If utilizing a travel agent, they may have access to an extended variety of options compared to what may be available at a hotel. They can also arrange for DME to be delivered to the traveler's destination.

Rental services can include equipment delivery to a specific travel destination, equipment repair, and even personalized nursing care. We recommend personally contacting these companies for product availability and asking about special services available. When renting equipment know the following information and include both metric and imperial measurements about your device:

- Equipment brand
- Make and model of device with serial number (if applicable)
- Device dimensions (height, width and depth)
- Weight of the device
- Type of battery and voltage

Knowing the above information will allow rental companies to find the closest item that best matches the traveler's personal equipment. The following are some resources for medical equipment rentals. Contact the insurance company for more information or do a quick internet search by zip code or by destination to find a local rental company.

RESOURCES FOR MEDICAL EQUIPMENT RENTALS

Domestic

Rental Company	Website
Medicare Use the Medicare Supplier Directory to search by ZIP code for local suppliers	https://www.medicare.gov
No Insurance Medical Supplies Purchase or rent equipment with domestic shipping	https://www.noinsurancemedicalsupplies.com
Lexon Medical Supply Wheelchair and mobility scooter rentals in the Washington DC area, NYC, Las Vegas, Orlando and across the US	https://www.lenoxmedicalsupply.com
Brevard Medical Equipment Equipment rental located in Merritt Island, FL	https://www.brevardmedicalequip.com
Monroe Wheelchair Equipment rental servicing NY and Tri-State area	https://www.monroewheelchair.com
Fold and Go Wheelchairs Rent a folding electric wheelchair - may be taken internationally	https://www.foldandgowheelchairs.com
Scootaround Rental, sales, and repair for scooters, wheelchairs, powerchairs, and rollators at >2,500 locations across NA and Europe	https://scootaround.com
Buena Vista (Florida) Scooter and wheelchair equipment rental in Florida.	https://buenavistascooters.com/travel

International

Rental Company	Website
Wheelchairs to Go Australian based equipment rental	https://www.wheelchairstogo.com.au
EZ-4U Israel-based scooter / wheelchair rental	https://ez-4u.co.il
Axsol Location France-based scooter / wheelchair rental	https://www.axsol-location.com
Mobility Equipment Hire Direct Offers equipment rentals in multiple domestic and international regions	https://www.mobilityequipmenthiredirect.com

Table 4: Domestic and international resources for DME rentals

When it is time to negotiate with the rental company, make sure to determine the terms and conditions regarding their rental policies, delivery options, coverages for damages, and insurance. Here are questions to help travelers guide their discussion with the DME rental company.

RENTAL AND DELIVERY QUESTIONS

Rental Questions	• What rental options are available? • What is the cost / quote for each? • Do you offer discounts? • How fast can I get my rental? • How far in advance should I reserve my rental? • Do you offer same day rental services if I need my rental ASAP?
Delivery	• Do you offer pick up or delivery services to obtain my rental? • Can you deliver to my destination or will you deliver to my home? • What are delivery fees? • Will you pick up my rental at the end of my rental term?
Damages & Insurance	• What happens if my rental gets damaged, lost or destroyed? • What service / replacement options are available if something happens to my rental? • Is the rental covered by my insurance? • Do you offer insurance coverage?

View from Museum Campus, Chicago, Illinois, USA.

INSURANCE AND DURABLE MEDICAL EQUIPMENT FOR TRAVEL

First time travelers should also consider travel insurance. While travel insurance does not typically cover durable medical equipment related to a preexisting condition, they may assist with claims for damaged equipment, getting rental equipment, and coordinating repair services. Check with personal medical insurance regarding these services prior to obtaining travel insurance. Also check if medical care outside of the United States is covered. The following are helpful resources regarding travel insurance options:

- Travel Insurance Review: https://www.travelinsurancereview.net/
- Square Mouth: https://www.squaremouth.com
- Insure My Trip: https://www.insuremytrip.com
- Travel Insured: https://www.travelinsured.com

For individuals whose durable medical equipment was originally paid for by Medicare, the cost to repair or replace any damage or loss due to an emergency or disaster will be covered by Medicare in certain cases. Medicare may also cover the cost of rentals for items (like wheelchairs) during the time equipment is being repaired.

TROUBLESHOOTING DME

A great vacation can be easily ruined if DME fails. Here are ways to troubleshoot DME during a travel emergency.

First, survey the equipment. Are there parts loose? Missing? Torn or broken? Determine if the DME can handle a temporary fix or if it needs to be brought to a repair shop. Utilize a tool kit and sewing kit for any quick DME repairs! Make sure all bolts are appropriately tightened, and remember that duct tape can always be used for simple fixes. When equipment fails, we recommend using the vendor as the first resource, since they are able to give specific guidance about that piece of equipment. Therapists and wheelchair specialists are also great resources and can offer tips to help troubleshoot. Some solutions for common DME issues can even be found on platforms like YouTube.com.

If what is broken needs bigger mechanical repairs, we recommend taking it to a local bicycle shop for repairs and replacements. Local hardware stores may also be very useful resources as many employees have previous professions in trade skills and may be able to provide advice or help with a simple repair. Hardware stores may also carry commonly used bolts and screws if items go missing.

If replacement parts are necessary, contact the vendor for availability. We recommend knowing the various parts of the equipment as certain parts may even be available on sites like Amazon, which can provide 1-2 day shipping around the US and can deliver internationally to over 100 countries. Tool kits, wheelchair parts, tire tubes and more are also available for purchase. If the damage is beyond repair, and a temporary fix may cause further damage to the assistive device or injury to the individual, it may be easier to replace it entirely. Standard assistive devices that may be found at a local pharmacy or a medical supply store includes: two / four wheeled walkers, rollators, canes (quad/single point canes), Lofstrand crutches, and various orthoses.

In the following sections, we provide a troubleshooting guide on the most common issues that can occur with DME while traveling and some (hopefully) quick and feasible solutions. Here are two additional resources that provide great tips:

- The Model Systems Knowledge Translation Center's maintenance guide for power and manual wheelchairs: https://msktc.org/sci/factsheets/maintenance-guide-users-manual-and-power-wheelchairs
- Mobility International USA's tipsheet on ways to avoid broken equipment: https://www.miusa.org/resource/tipsheet/equipment

POWER WHEELCHAIR

Equipment	Issues	How to Troubleshoot
Charger and Adapter	• Frayed wire • Disconnected • Electrical malfunction • Forgot charger	• Bring a back-up charger or contact a local vendor. • Contact a hardware store for a replacement battery / charger if available. • If unable to locate the charger, direct someone to disengage the motor and manually push to destination, though not ideal. **Be sure to always have a charger and plug adapter available. Make sure it is possible to plug in the variable voltage power chair charger when traveling abroad.*
Backrest / Armrest Joystick Controller	• Loose bolts • Broken thread • Missing screw or bolt	• Tighten with Allen keys using old/new bolts and screws. • Utilize duct tape/zip ties to secure if needed for temporary fix.
Cushion	• Leaking or deflated air cell • Tear in cover	• Submerge cushion in water to locate the exact point of air loss. • Utilize patch kit from vendors or duct tape for temporary repair. • If the cover is tearing and causing decreased skin integrity, use a sewing kit to fix.
Harness and Body Strap System	• Torn area • Broken latch system	• Repair with a small gauge needle and thread. • For latch system, such as a seat belt, utilize Velcro or duct tape for temporary repair.
Electrical Error	• Contact with water • Frayed or loose wires • Error displayed on screen	• If the power wheelchair will not turn on due to electrical error, inspect for disconnected or damaged wires. • If the chair comes in contact with water, allow it to air dry for 24 hours prior to trying to turn on. Disconnect and reconnect the power source, then turn the power on. • Contact the vendor if basic repairs are unable.

Table 5a: Troubleshooting tips for power wheelchair

MANUAL WHEELCHAIR

Equipment	Issues	How to Troubleshoot
Push Rims	• Damaged, frayed metal • Safety guard worn/damaged	• Wrap duct tape or Coflex tape around to prevent hand injury. • Wear thick gloves when pushing the chair.
Locks	• Loose or damaged wheel lock	• Check to ensure tires are properly inflated. • Ensure bolts are tightened. • Maneuver wheel lock to proper position than retighten or move using a mallet for last resort.
Cushion	• Leaking or deflated air cell • Tear in cover • Missing air pump	• Submerge cushion in water to locate the exact point of air loss. • Utilize patch kit from vendors or duct tape for temporary repair. • If the cover is tearing and causing decreased skin integrity, use a sewing kit to fix. • Utilize a free air pump at a gas station or purchase an air mattress pump with the proper valve connector if a cushion air pump is unavailable.
Tires	• Flat or leaking tire	• Local bike shops may be able to install new tubes or locate holes to fill temporarily with rubber / sealant. • Remove tires and remove any glass or debris from the wheel that may cause further issues to tubing.
Backrest/Armrest	• Loose or unsecure due to missing bolt/screw	• Visit a local hardware store for replacement parts.
Caster Wheel	• Bent • Cracked axle	• Consider replacing it with a wider front caster to access uneven terrain. • A freewheel may be considered to lift casters for easier access to multiple terrains.

Table 5b: Troubleshooting tips for manual wheelchair

TRAVEL SHOWER / COMMODE CHAIR

Equipment	Issues	How to Troubleshoot
Backrest/Armrest	• Torn fabric • Ripped padding	• Utilize duct tape or a sewing kit to repair damaged areas temporarily. • Complete skin check pre- and post-use when damage to direct contact area is apparent.
Caster Wheels	• Broken lock	• Utilize a heavy item to block the wheel to secure the chair for transfers (only use the chair if absolutely necessary). • Go to the hardware store to repair broken lock(s) if able.
Legs	• Broken pin • Bent / damaged	• Contact a local vendor for a replacement part. If unavailable, trial a temporary part from a hardware store to repair a locking pin or swap out a walker leg if available. • If the leg is bent / damaged, do not use it as it is a safety risk. Utilize local resources, connect with local SCI / wheelchair / disability organizations to locate a new replacement leg.
Fasteners	• Screws/washers loose • Missing screws/washers	• Bring extra screws / washers for travel. • Visit a local hardware store for missing fasteners if applicable. • Tighten all fasteners prior to every use.

Table 6: Troubleshooting tips for travel shower / commode chair

OTHER DME

Equipment	Issues	How to Troubleshoot
Sling	• Torn/damaged	• Utilize a patch kit or sewing kit with a small gauge needle to repair. • Ensure that the integrity of the straps are secure prior to transfer.
Battery	• Dead/malfunctioning	• If able, bring a backup charger / battery for the device. • Utilize manual mode on the device to safely complete transfer.
Wheels	• Broken/bent wheel	• Locate a replacement part from the vendor or hardware store and install prior to use.

Table 7: Troubleshooting tips for other DME

Hilton Hawaiian Village, Waikiki Beach, Hawaii, USA.

BOOKING TRAVEL

Before booking anything, the most important decision travelers have to make is picking the destination! In addition to building a personalized DME checklist, PwDs should also consider their mobility needs with respect to the built environment of their destination of choice. While we encourage all PwDs to think big and to believe anything is possible, we know that traveling with a wheelchair requires extensive background research and a healthy dose of realism.

If traveling to another state, let alone another country is still overwhelming, use this travel guide to plan a local community outing or even a staycation. Those with SCI who are interested in getting back out to their communities can use the tips within this guide to accomplish even day-to-day tasks.

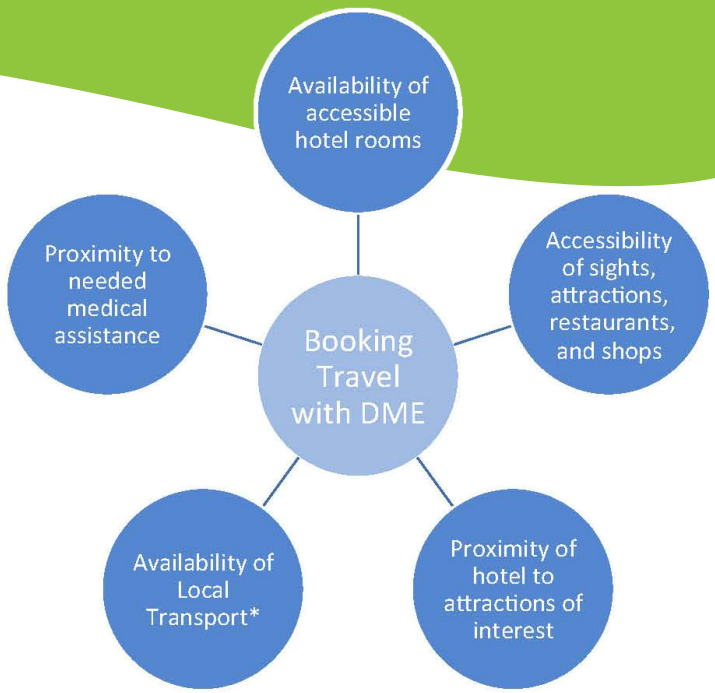


Figure 2: Booking travel with DME

**Availability of local transport includes accessible public transport vs. special WC taxis vs. companies to arrange for private transport.*

The booking process itself can present many challenges to PwDs. While online booking for transportation, hotels, and attractions have progressively improved since the passing of the ADA, consistencies across brands and platforms remain to be seen (Zuziak, Oboudiyat, Tamayo, 2019). International travel will require more research and patience, as laws for those with disabilities vary from country to country. No matter the destination or mode of transportation, it is important to review policies regarding passengers with disabilities. The majority of travel companies have a dedicated website and/or help line specifically for PwDs.

Because of the vastness of the travel industry, the information we present here is not meant to be exhaustive, and will primarily focus on US-based companies. We will, however, still provide some basic information to help travelers maneuver international travel.

Booking travel starts with good research. The following websites are excellent starting points to find tips regarding domestic and international wheelchair travel:

- Wheelchair Travel (international): https://wheelchairtravel.org
- Sage Traveling (Europe): https://www.sagetraveling.com
- Curb Free with Cory Lee (international): https://www.curbfreewithcorylee.com
- Wheelchair Jimmy (international): https://wheelchairjimmy.com

Many of these websites are run by PwDs in wheelchairs who provide their expertise on travel. They have great recommendations on how to maneuver public transportation, choose the right hotels, and navigate tourist attractions. In some cases, they also offer travel tours for PwDs to remove the headache of dealing with the difficulties of planning an accessible vacation.

HOTELS

Hotel selection is perhaps one of the most important decisions to make while traveling. While travel websites like hotels.com, orbitz.com, hotwire.com, expedia.com, and booking.com have made it easier to book rooms with accessibility features, there is no industry standard for what accessible features are reported (Zuziak, Oboudiyat, Tamayo, 2019). Procuring an accessible room is also not always a guarantee. That said, these travel search engines are a good start. Below are some examples of the accessibility features that are featured on various travel search engines.

Travel Search Engine	Accessible Features and How to Find Them
Travelocity *Orbitz* *Expedia* *Hotels.com*	"Accessibility" on Left Screen Menu: Elevator Accessible bathroom Roll in shower In-room accessibility Service animals allowed Stair-free path to entrance Sign language capable staff
Trivago	Apply "Wheelchair Accessible" Filter Hotel accessibility information is listed under the hotel profile. Click on "Info" then "Amenities."
Hotels.com	"Property Accessibility" on Left Screen Menu: Wheelchair accessible Toilet with grab rails Raised toilet Lowered sink Bathroom emergency cord Visual aids (Braille / tactile signs) Auditory guidance "Room Accessibility" on Left screen Menu: Entire unit located on ground floor Upper floors accessible by elevator Entire unit wheelchair accessible Toilet with grab rails Adapted bath Roll-in shower Walk-in shower Raised toilet Lower sink Emergency cord in bathroom Shower chair

Travel Search Engine	Accessibility Features as Options
Kayak.com	"Amenities" on Left Screen Menu and apply "Increased accessibility" Hotel accessibility information is listed under the hotel profile. Click on "Amenities" to see "Accessibility and suitability."
Hotwire	Amenities Menu: Wheelchair accessible Roll in shower In-room accessibility Accessible path of travel Accessible parking Accessible for visually impaired Accessible for hearing impaired Accessible bathroom

Table 8: Travel search engines and accessibility features (Tamayo, 2021)

Keep in mind that while the US has the ADA to help standardize these features, the consistency of what those features look like across domestic hotel brands may be very different. Travelers to international destinations should be aware that the definition of an accessible room may vary from country to country. For example, narrow doorways may be more commonplace in some regions, and roll in showers may not be available in others. In either case, the room may be described as "accessible." On the other hand, some rooms go above and beyond, and include a trapeze or ceiling lift in the room.

We recommend directly contacting the hotel and describing one's accessibility needs. Ask about the room and bathroom but also the general property. This is where having the measurements of equipment and of the space needed are important in advocating for one's care. Keep in mind that many reservationists may still not know what is available at the hotel or if the room is truly accessible. We also recommend speaking directly to the hotel manager or communicating by email to get everything in writing. Follow up with the hotel at least 24-48 hours prior to arrival to ensure that the accessible room and any possible equipment needed are not only available but also reserved.

Examples of an accessible room at the Residence Inn, Marriott, Brookfield, Wisconsin, USA.

In addition to the accessibility features discussed above, some hotels will have durable medical equipment available onsite as aforementioned (e.g. bed rails, bed wedges, recliner chair, shower chair, commodes). We recommend looking into this option if travelers do not want to bring their own DME. The hotel concierge may also be able to provide information on rental equipment in the area.

Below are some questions to guide travelers in booking their hotel.

HOTEL QUESTIONS

General Questions	• Are the entrances accessible with ramps? • Do you have adequate wheelchair parking? Are there curbs in the parking lot? • What are the door dimensions? • Do you have adequate space for maneuvering my wheelchair? • Do you have elevators? Can they accommodate my wheelchair? • Do you have wheelchair seating? • Is your gym accessible? • Is your swimming pool accessible with an available lift? • Is your business center accessible? • Is DME equipment available to rent on site or in the area? Will you be able to provide that information upon arrival or help with reserving equipment? • Do you allow service dogs?
Hotel Room	• Will there be an accessible room available for me? • Are the doors easily operated? What kind of handle do they have? Are there mechanical doors? • What are the dimensions of the room door? • What are the dimensions of the room? • Is there enough space in the room for me to maneuver my wheelchair? • How much space is between the bed and the wall? • What is the height of the bed from the floor? • Can the bed be raised / lowered?
Bathroom	• What are the dimensions of the bathroom? • Is there space for my wheelchair to fit under the sink? • What type of shower is there? Is there a roll in shower available? Does the shower have a seat / bench / grab bar? • Is the bathroom equipped with grab bars?

Closet set up at the Residence Inn, Brookfield, Wisconsin, USA.

Pool lift, St. Regis Bahia Beach Resort, Puerto Rico.

Large siting area, Colton House Hotel, Austin, Texas, USA.

TRANSPORTATION

Once the destination has been chosen, travelers should consider the various modes of transportation to and from, as well as around and within their destinations of choice. First time travelers may want to choose to stay in major cities where there may be more accessible options for transportation compared to rural areas. Some challenges that travelers will need to navigate include but are not limited to the following:

- Inaccessible routes to and from stations
- Inaccessible stations including broken / inoperable wheelchair lifts / elevators
- False claims of inoperable lifts or ramps to avoid boarding a person with a disability
- Lack of knowledge from transportation staff on how to assist PwDs – ranging from providing information to physical assistance
- Lack of communication between departure and arrival stations that a PwD may need assistance

For long distance bus and train travel, ensure that both arrival and departure stations are aware if assistance is needed with a personal wheelchair. We also recommend going to the station one to two days before travel. Speak directly to a customer service representative to ensure that lifts and ramps are operational, and that staff know how to operate them.

For novice travelers and their travel companions, asking the right questions to booking agents can be the difference between a horrible and a great trip. The following questions can give travelers an idea of how to advocate for themselves when booking transportation and can be generally applied for air, bus, train and car travel.

GENERAL TRANSPORTATION QUESTIONS

Restrictions	• Are there restrictions or extra fees associated with durable medical equipment (wheelchair weight / height / type of battery)? • Do you allow service dogs?
Security	• Are there specific security protocols for wheelchair users / mobility impaired? • What DME am I allowed to bring through the security checkpoint? Will they need to be disassembled or be manually inspected?
Check In / Baggage Retrieval	• What is the process of checking in my wheelchair? Is it necessary to check in my wheelchair? • What is the process of retrieving my wheelchair? • If my wheelchair needs to be checked in, how can I secure an aisle seat with a removable arm rest?

Assistance	• What assistance is available for wheelchair users?
	  • Check in
	  • Security
	  • Boarding
	  • Baggage Claim
	  • DME Retrieval / DME storage
	• What are the company's policies for ensuring safety of my equipment?
	• What are the policies if the wheelchair is damaged / lost?
	• Will the crew help me get into my seat?

Boarding / Deplaning	• What is the boarding / deplaning protocol for wheelchair users? • Do wheelchair users board / deplane first or last?

Seating	• Am I able to sit in my wheelchair during travel?
	  • If not, are there special seating assignments or spaces available?
	  • If I can, what safety measures are available to ensure I am safe in my wheelchair? For example, do you have harnesses / straps / tie downs to secure my wheelchair in those areas?

Remember to book as early as possible, and make sure to reconfirm reservations at least 24-48 hours in advance!

Public Transportation

Because public transportation is so varied domestically and internationally, we will not cover it extensively. In the United States, we are afforded minimum requirements of accessibility through Title II of the ADA including:

- Barriers on platforms to prevent wheelchairs from rolling off
- Sturdy and large handrails
- Ramps and bridge plates
- Lift equipment for loading wheelchairs
- Priority seating for disabled
- Proper, clear doorways, and pathways in subways
- Adequate lighting on ramps and in doorways

However compliance to the law is inconsistent from city to city. To navigate some of the challenges previously outlined, here are some things to consider when using public transportation:

- We recommend choosing a hotel as close to the sites and attractions of interest to reduce any headaches associated with public transportation.
- If taking public transportation is necessary, plan routes carefully and add extra travel time to account for any obstacles encountered.
- If taking the subway, check to see if the stops accommodate wheelchairs and if the elevators work.
- Ask about discounted tickets!
- Have a back up plan. Though it can be expensive, consider wheelchair accessible taxis to get to the destination of choice.

PUBLIC TRANSPORTATION QUESTIONS

Public Transportation Questions (Bus / Trains)	• What are public transport options in the area (subway, bus, etc.) that are equipped for wheelchair users? • What is the price for public transport? Are there special accommodations / discounts for wheelchair users and their companions? • Are all buses / subway stops equipped with a wheelchair lift / elevator? • If not, is there a brochure / map that provides which particular buses / subway stops have a wheelchair lift / elevator? • Does the wheelchair lift have a weight limit? • Is there reserved seating for wheelchair users? • What safety measures are available to ensure I am safe in my wheelchair? For example, do you have harnesses / straps / tie downs to secure my wheelchair in those areas?

Air Travel

Of all the modes of transportation, air travel may pose some of the biggest challenges for PwDs. Before booking, remember to:

- Review the rights provided by the Air Carrier Access Act.
- Review airlines' specific policies regarding disability services.
- Know the policies of airlines operating outside the US as they are not subject to the ACAA or the ADA.

Most airlines will have a hotline for those with special needs, where PwDs can advocate for their needs. If travelers choose to book tickets on their own, remember that the airline should be made aware at least 24 hours in advance if traveling with a power or manual wheelchair to ensure accessibility needs are met. Here are some other air travel tips and questions to consider:

AIRLINE TRAVEL TIPS / QUESTIONS	
Wheelchair Tips / Questions	• Can my wheelchair be disassembled or collapsed? ◦ Most airplanes have a closet that can accommodate a collapsed wheelchair. Request in-cabin storage to protect wheelchairs / assistive devices from damage if able. • Does the airline have size restrictions? Does your wheelchair fit within those size restrictions? • Request in cabin storage to protect your wheelchair from damage • If my wheelchair is checked in can it be brought to me during a layover?
Travel Day Tips	• The airlines have codes for requesting special assistance on the travelers ticket. The following website has more information on special service request codes: https://wheelchairtravel.org/air-travel/special-service-request-codes/. Check that boarding tickets have the right codes. • Remember to leave AMPLE time if connecting to another flight (give at least 90 minutes between flights). • Confirm there will be assistance with transfers and connecting flights.

Airplane Seating	• Choosing the right seat can mean the difference between a comfortable flight or an unbearable flight. Check the following websites for detailed seat maps with ratings and in-depth comments: https://seatexpert.com or https://seatguru.com
	  ◦ Pick the seat that will best suit the traveler's needs.
	  ◦ Remember to ask about removable armrests for easier transfers.
	  ◦ Ask if there are available leg supports especially for longer flights.
	• Use the wheelchair cushion for comfort and skin protection.

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In Flight Bathroom	• Per the ADA, wide body aircrafts are required to have an accessible toilet. Some narrow body aircrafts may have one but there is no guarantee. Ask details about the bathroom accommodations.
	  ◦ How accessible is the bathroom?
	  ◦ Is there an in flight wheelchair to get me to the bathroom?
	• Prior to flying, check the flight details to determine if the flight does not have an accessible bathroom. If it does not, make other arrangements, and consider catheterizing prior to boarding or utilizing a thigh / leg bag.

Airline Information

Here we provide booking and other information regarding some of the most utilized airlines domestically and internationally according to the International Air Transport Association (IATA, 2019).

Airline	Booking Information	Restrictions and Other Notable Information

American Airlines	Tickets by phone:
	1-800-433-7300
	For online booking:
	https://www.aa.com
		• When booking on aa.com choose "special assistance required" when filling out passenger details to:
		  ◦ Request wheelchair service.
		  ◦ Request individual assistance if you have a hearing, vision, cognitive or developmental disability.
		  ◦ Inform the airline if traveling with an emotional support animal (notice is required within 48 hours of your flight).
		• Travelers can also fill out a Disability Assistance Request online.
		• Doors to the wheelchair storage area are 25" (60cm) x 40" (101cm). If the device is larger than this, contact reservations.

Delta Airlines	Tickets by phone: 1-404-209-3434 For online booking: https://www.delta.com	• To request assistance, visit the website https://www.delta.com/mytrips / or complete an online Accessible Service Request form within 7 days of departure. • If traveling with a personal wheelchair, fill out the Wheelchair Handling Form. • To stow wheelchairs, it should be less than 13"(33cm) x 36"(91cm) x 42"(106cm).

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Airline	Booking Information	Restrictions and Other Notable Information
Southwest Airlines	Tickets by phone: 1-800-435-9792 For online booking: https://www.southwest.com	• When booking, use the Special Assistance link on the Passenger & Payment Info page and indicate what equipment will be brought on board. • Travelers may also call to advise the airline of any disability related travel needs if reservations have already been made. • In-cabin stowage allows at least one standard-size, adult, collapsible wheelchair. • Power wheelchair users may be transferred to an airport wheelchair up to an hour prior to departure while their wheelchair is stowed in the cargo. Southwest does request access to the wheelchair battery to determine if it is approved for transport. • We recommend completing the Wheelchair / Scooter Information Form to help serve as a guide for employees handling the assistive device.
United Airlines	Tickets by phone: 1-800-228-2744 For online booking: https://www.united.com	• Additional assistance can be requested when booking on united.com or via phone. • For questions or general information regarding special travel needs, fill out the Special travel needs contact information form or email uaaeromed@united.com. • 48 hours advance notice is required if traveling with a powered wheelchair on an aircraft of 60 seats or less. • All of United's aircrafts have adequate space to accommodate at least one adult-sized, foldable wheelchair in the main cabin.
Ryanair	Tickets by phone: + 44 871 500 5050 *Contact Centre will incur higher fees if the booking / change could have been made online. Call to make arrangements for necessary assistance in advance.* For online booking: https://www.ryanair.com	• Requires physician's letter confirming medical equipment requirements for carriage free of charge. • Wheelchairs or mobility scooters weighing more than 150kg (330lbs) require pre-authorization. • If traveling with an electric assistive device, complete the Electric Mobility Device Loading Form. • There is an onboard aisle wheelchair on each Ryanair aircraft.

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Airline	Booking Information	Restrictions and Other Notable Information
Emirates	Tickets by phone: 1-800-777-3999 For online booking: https://www.emirates.com	• A physician should complete the Medical Information Form (MEDIF) prior to departure. • Review the size and weight restrictions of assistive device(s) with an airline representative or booking agent. • Storage for one passenger's collapsible, manual wheelchair in the aircraft cabin on a first-come, first-serve basis is available.
Lufthansa	For online booking: https://www.lufthansa.com *Call Lufthansa 48 hours prior to departure to arrange wheelchair service / assistance at the following number: 1-800-645-3880.	• Register assistance requirements by phone or online at the Lufthansa Service Center at least 48 hours prior to departure. • Lufthansa also allows travelers to register their needs via an online form under Customer Services > Feedback > Register Special Needs.
Air France	For online booking: https://www.airfrance.us/ *A Saphir agent will call to provide assistance for wheelchair travel	• For more information, Air France has a "Reduced Mobility and other Disabilities" Section under Information > Preparing Your Trip on their website. • Please make request(s) for assistance at least 48 hours prior to departure - this can be managed on the "Your disability" section of the website. • If the dimensions of a folded wheelchair do not exceed 10"(27cm) x 37"(94cm) x 35"(90cm), it may be kept in the cabin.

Table 9: Major airline booking information and important travel information

Things to Know on Travel Day

In addition to pre-flight preparations, there are important things to know for travel day via airplane. Here are some tips to keep in mind:

1. Arrive at the airport at least two and half hours prior to flight time.
2. Request a supervisory TSA officer or passenger support specialist to assist throughout the airport experience. Travelers can request to stay in their own personal wheelchair until the gate. Be aware that policies may differ internationally.
3. Prior to checking one's wheelchair at the gate, remove everything that is not firmly attached (seat cushions, cupholders, foot and armrests, side guards, bags, tray tables, oxygen attachments) and put these items in a bag or backpack. They can be brought inside the cabin. Use the wheelchair cushion during the flight to help maintain skin integrity.
4. Passengers do not need to get out of their wheelchair when passing through a TSA security checkpoint. If unable to walk through the metal detector, travelers in wheelchairs will be screened by way of a pat-down from an officer of the same gender. Passengers should inform an officer before the patdown begins of any

difficulties raising his / her arms or any areas of the body that are painful when touched. PwDs should not be asked to remove or lift any article of clothing to reveal a sensitive body area.

5. Security will inspect personal wheelchairs and scooters including seat cushions, non-removable pouches or fanny packs and may also test them for traces of explosives. Any removable pouches will be required to undergo X-ray screening.
6. Airport staff will assist in completing transfers from personal wheelchair to an aisle chair (also referred to as a straight back or high back), which is a small wheelchair that is used to transport immobile passengers from their own wheelchair to a seat on the airplane, if needed. BE AN ADVOCATE! Educate staff on how best to be transferred for safety and skin integrity; the airline staff are not trained therapists or physicians.
7. U.S. law only requires airlines to provide accessible lavatories on wide-body airplanes with dual aisles like the Airbus A330, Airbus A340, Airbus A350, Airbus A380, Boeing 747, Boeing 767, Boeing 777, and Boeing 787. Airlines provide onboard aisle chairs on aircraft with accessible toilets. While there are some narrow-body planes which have installed accessible lavatories, PwDs should not count on it being available on single aisle aircraft. On short flights, we recommend catheterizing prior to the flight, and for longer flights in single aisle aircraft, consider utilizing a leg bag.

Complaints and Other Contact Information

1. Any complaints should be directed to the Customer Service Representatives at the airport.
2. Complaints that cannot be resolved while at the airport should be forwarded to the airline's Complaint Resolution Officer (CRO). All airlines are required to have a CRO on duty. The Department of Transportation requires airlines to acknowledge complaints within 30 days of receiving them and provide written responses within 60 days.
3. There are also two national Airlines Assistance Telephone Hotlines:
   TSA Cares Call: 1-855-787-2227 or email: TSA_ContactCenter@dhs.gov
   DOT hotline for travelers with disabilities Call: 1-800-778-4838 or
   TTY: 1-800-455-9880
   Travelers can also file a complaint online at: https://transportation.gov
4. For military members or Veterans, Contact TSA Military Severely Injured Center (email: MSIJSOC@DHS.GOV or 888-262-2396) 48 hours in advance with name and flight information. A passenger support specialist will be assigned to assist with transport through airport security.
5. Use social media! If the airline is unresponsive or does not provide adequate assistance. Ask friends and family to spread the news about any damages incurred during travel. Post on multiple social media platforms and ensure that the airline company is tagged. In addition, use different hashtags to increase the visibility of the post.

Bus Travel

The following companies primarily operate in the United States / North America. Most international bus / coach companies that follow the western model of accessibility will most likely have similar accessibility features and restrictions, but more research will be required. Many of the cities where these bus / coach companies operate do not have a brick and mortar station, and security protocols are limited to showing a traveler's ID with the paper or e-ticket.

Mobility units on buses can generally accommodate the following:

- Wheelchair dimensions: 30" (76cm) x 30" (76cm) x 48" (122cm)
- Wheelchair weight (combined with passenger): 600-1000lbs (272-454kg)

Wheelchairs gain access to the interior of the bus either through a portable ramp that folds out for access or a wheelchair lift. Travelers will usually have the option to sit in a designated seat or stay in their wheelchairs. If needed to secure the wheelchair, buses may have a chest belt or Q-straint straps available. If you decide to transfer to a coach seat and have your mobility device stored in the baggage compartment, it must not exceed 33" (84cm) x 33" (84cm) x 48" (122cm) and should be less than 200 lbs (91kg). Otherwise, it may not be accepted. Make sure to reserve tickets at least 48 hours in advance to ensure that a lift-equipped bus is available.

Bus Company	Booking Information	Notable Information
Greyhound *Operating in the US, Canada, Mexico*	Customers with Disabilities Travel Assistance Line: 1-800-752-4841 Online booking: https://www.greyhound.com	• Any damage sustained to personal belongings carried in the baggage compartment is only $250 per item, which includes wheelchairs and all assistive devices. • Greyhound buses do not have electrical outlet access in the wheelchair space, so consider this while planning for travel. • Discounts are available for Personal Care Attendants, who must be at least 12 years old and travel the distance with PwDs.
Boltbus *Operating in the NE and Pacific NW of the US*	TIckets by phone: 1-877-265-8287 Online booking*: https://wwww.boltbus.com **Look for the "Special Needs Preferences" option on the menu* **Because it is a subsidiary of Greyhound, customers can also utilize Greyhound's customer help line for more assistance.*	• Any damage sustained to personal belongings carried in the baggage compartment is only $250 / item including WCs and ADs. • Mobility aids like canes or walkers may be taken inside the bus if they can be stored safely in the overhead compartment.
Megabus *Operating in the US, UK, Canada*	Tickets by phone for wheelchair users: 1-877-GO2-MEGA For those unable to walk up stairs, but do not use a wheelchair or scooter: https://megabus.com	• Call at least 48 hours in advance to request special accommodations. • Buses are generally double decker buses with only the lower level accessible for wheelchair travelers. • Bathrooms are not accessible for a wheelchair. • Megabus offers a free ticket to Personal Care Attendants.

Table 10: Accessibility travel via coach and bus

Train Travel

Each country has their own national rail service, and some country-specific rail operators may operate long-distance routes and may even cross borders. Dealing with the various regional rail operators is the biggest challenge as each country and carrier may have different policies for people traveling with their DME. In addition, the language barrier can certainly make things more complicated. Here are some tips to manage travel by train with a wheelchair abroad:

- While most long-distance international train travel can be booked online, some will require a phone call or an in-person visit about 24-72 hours in advance to arrange for specific DME needs. Call to find out how much time is needed for reservations.
- Make sure to inquire about specific requirements to assist the wheelchair user in boarding the train (e.g. ramp / bridge plate, in-person assistance).
- Most stations and trains are accessible and provide special cars for wheelchair users. However, this may change depending on the designated location (rural vs. urban, or even on the schedule of the train). Add travel time in case the originally scheduled train does not accommodate wheelchairs, but the next one does!
- Ask about accessible lavatories on the train and if the dimensions will accommodate the traveler's particular wheelchair.
- Make sure to arrive early! Show up at least an hour before the scheduled departure to make sure the station / train is ready to accommodate the wheelchair user.
- Ask about discounts for wheelchair users and their companions!

In addition to the above information, we recommend reading The Man in Seat 61 (https://www.seat61.com) for more information on train travel. While the website is run by an able-bodied individual, it provides extensive information on many of the world's rail services. It provides pertinent websites and contact information for helping travelers plan their train journeys across the globe.

Car Travel

Car Rentals with Modifications for PwDs

If looking for an alternative transportation option, most major vehicle rental companies provide modified cars if taking one's personal vehicle is not an option. Call the customer service telephone number prior to booking the vehicle rental to further discuss any specific needs and desires. Plan ahead of time and ensure that all booking needs are fulfilled at least two weeks prior to departure. Some questions to keep in mind when booking wheelchair accessible vehicles:

1. Are there wheelchair accessible vehicles available for the scheduled dates of travel?
2. How much advance notice is needed to reserve a wheelchair accessible vehicle?
3. Are adaptive driving devices offered? (see Figure 8 for examples of features)
4. Are there extra fees associated with requesting / using adaptive driving devices or a wheelchair accessible vehicle?

Below are common vendors for both vehicle rental and purchase with available accessible features to find the best vendor that suits one's needs.

US based Van Rental Companies	Contact and Booking Information
Wheelchair Getaways A member owned organization made up of independent Mobility Dealers across the United States who rent, sell, and service wheelchair accessible vehicles.	https://www.accessiblevans.com 1-(888) 432-9152
Wheelchair Accessible Van Rentals Offers rental affiliates in 20 U.S. states for accessible van and other equipment rentals including delivery services at most locations. It is recommended to contact the dealer directly with any specific inquiries.	https://wheelersvanrentals.com 1-(800) 456-1371
Mobility Works National chain of wheelchair accessible van providers with over 90 locations in 31 states. Offers 24-hour emergency helpline, mechanical services, and other accessible driving equipment.	https://www.mobilityworks.com 1-(877) 275-4907
Winnebago U.S. manufacturer of outdoor lifestyle products, which are used primarily in leisure travel and outdoor recreation activities. The company builds quality motorhomes, travel trailers, fifth wheel products, and boats.	https://winnebago.com 1-(641) 585-3535

Table 11: United States van rental companies and contact information

Domestic and International Car Rental Companies	Contact and Booking Information
Avis	https://www.avis.com 1-(800) 962-1434
Hertz **Easy Access Bus - provides an electrically-operated ramp as well as two ADA compliant wheelchair positions. Wider doors, spacious aisles, and waist high luggage racks are also designed to make traveling easier and more comfortable.*	https://www.hertz.com 1-(800) 654-3131
Budget	https://www.budget.com 1-(800) 314-3932
Enterprise	https://www.enterprise.com 1-(866) 225-4284
Alamo	https://www.alamo.com 1-(844) 602-3271

Table 12: Global car rental companies and contact information

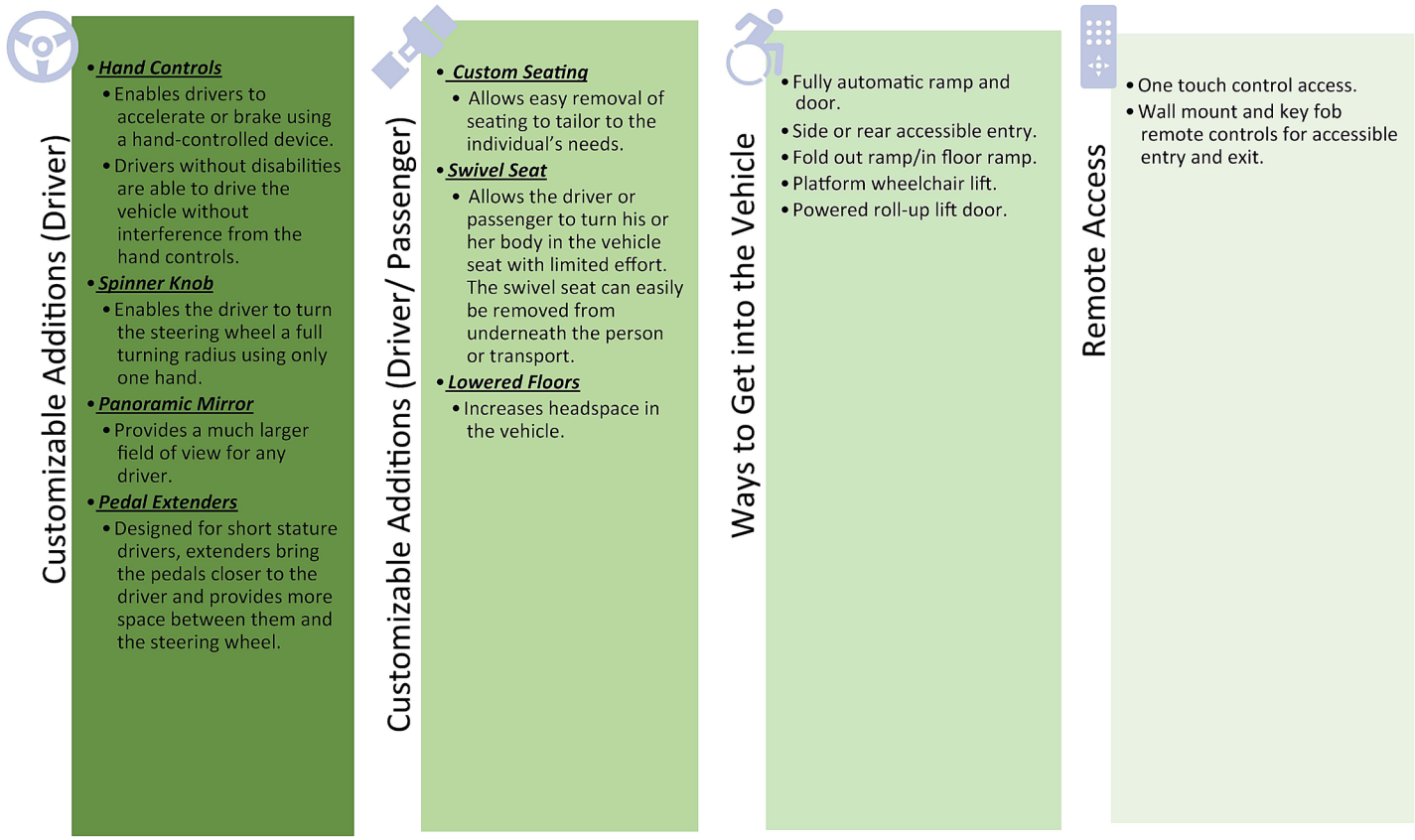


Figure 3: Common accessible car features

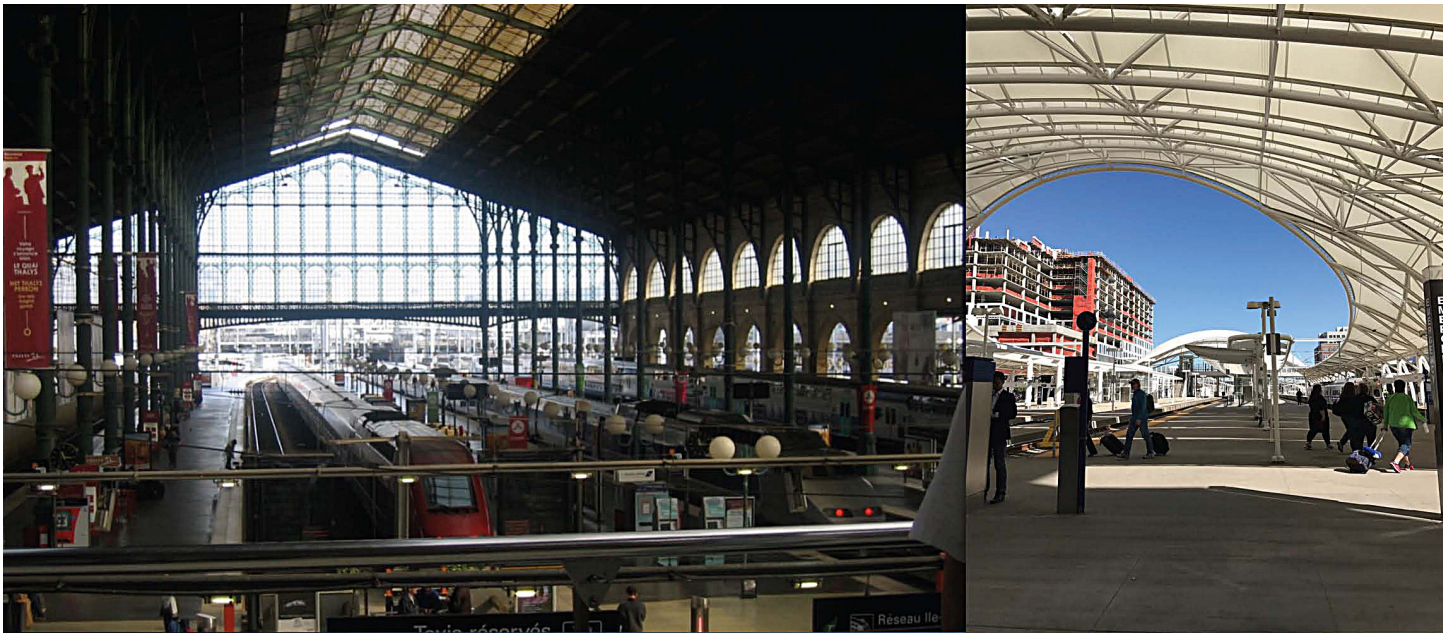
Most standard taxis will be able to accommodate a collapsible wheelchair, but power wheelchair users will have to make arrangements with wheelchair accessible vehicles (WAV) or rideshare services if they opt-out of taking public transportation. WAV services have become more widely available domestically and internationally, and in some instances are the best way for wheelchair travelers to get from one destination to another. Each city will have companies that specialize in WAV services and PwDs, however it is still recommended that some research is done and arrangements are made prior to traveling.

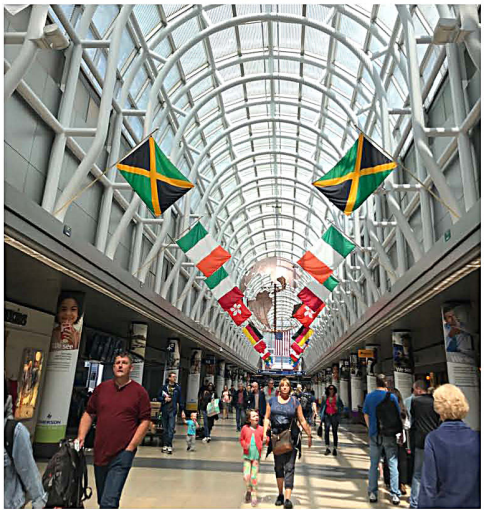
One US-based company is Curb, which is a taxi service available in over 65 U.S. cities. Customers are able to request immediate pickup or may schedule planned pickup up to 24 hours in advance. In select markets, wheelchair accessible vehicles may be reserved.

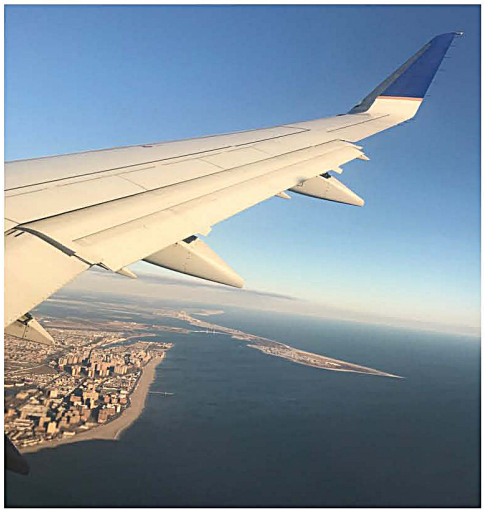
Accessible rideshare services like Uber and Lyft are other options for transportation and they are fast becoming one of the easiest ways for PwDs to get around their destinations of choice. The Uber and Lyft apps make arranging and paying for rides easier as it removes the need for a dispatcher and has a cashless payment set up.

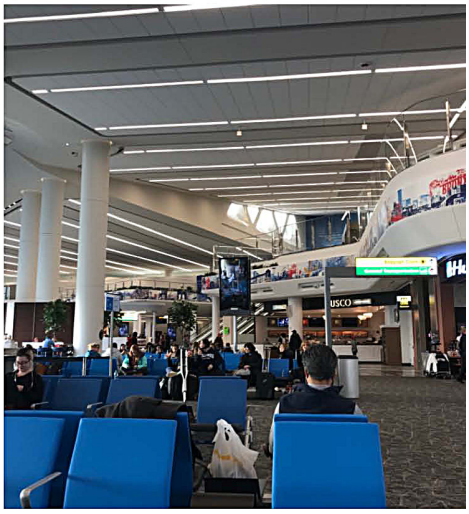
Recently, Uber launched their Uber-WAV (Wheelchair Accessible Vehicles) Service in Bangalore, Boston, Chicago, London, Los Angeles, New York, Philadelphia, San Francisco, Toronto, and Washington, DC. Per Uber's website, the service allows riders who use non-folding motorized wheelchairs to connect with drivers in wheelchair-accessible vehicles equipped with ramps or lifts at the price of an UberX. WAV drivers have also completed a certification course to help travelers transfer into and out of the vehicle from their assistive device.

As of the writing of this manual, Lyft has also started to roll out WAV services but are still limited to the west coast of the United States, specifically San Francisco and Los Angeles. Customers are now able to request a WAV by enabling Access Mode in the Lyft app. The vehicles are 2019 Toyota Siennas provided by a third party company, First Transit, and are operated by certified drivers, available exclusively for Lyft app WAV riders.









From top left to bottom right: Thalys train station, Paris, France; Denver Union Station, Denver, Colorado, USA; O'Hare Airport, Chicago, Illinois, USA; View from Delta Airlines, Queens, New York, USA; LaGuardia Airport, Queens, New York, USA.

ATTRACTIONS, RESTAURANTS AND BARS, PARKS AND RECREATION, ENTERTAINMENT AND SPECIAL EVENT VENUES

Of course no trip is complete without a visit to the famous attractions, restaurants and bars, parks and recreations and entertainment venues of the traveler's chosen destination. Navigating each of these presents their own specific challenges. Just like booking hotels and transportation, planning other travel activities requires some preparation.

Attractions

There are so many different attractions around the world from museums and art galleries, amusement parks, historical or heritage attractions, zoos and wildlife destinations. While many are accessible, some attractions may not allow the use of personal wheelchairs - especially power wheelchairs or scooters – if there are concerns of the structural integrity of the building or if there is no physical space available. Do the research and remember that travelers are entitled to ask questions prior to visiting! Many of these locations will have accessibility information on their website or have a special department dedicated to wheelchair users or mobility impaired individuals. Email or call guest services and advocate! Here are some questions to keep in mind when planning visits to various attractions:

QUESTIONS FOR ATTRACTIONS

Attractions

Museums / Art Galleries / Wildlife Destinations / Historic Attractions

- Is advance notice necessary for wheelchair users / mobility-impaired individuals to visit the attraction?
- Is there a department dedicated to helping wheelchair users / mobility-impaired individuals to plan a visit?
- Are there restrictions for wheelchair users / mobility-impaired individuals?
  - If so, what other accommodations are in place to see the attraction?
- Are there loaner wheelchairs available if unable to bring a personal chair? Are they free of charge?
- Are there discounts for wheelchair users / mobility-impaired individuals and their travel companions?
- Is the entire attraction wheelchair accessible?
  - What areas are not available for wheelchair users?
  - Are there ramps / specialized entrances? Automated doors? Elevators? Accessible restrooms?
  - Where is the accessible entrance? What is the distance between the entrance and the main welcome area?
- Are there special accessible tours available?
- Are wheelchair escorts offered?
- Are service animals allowed?

Amusement Parks

This addresses more specific questions regarding rides, though all above questions are applicable.

- Are there restrictions on particular rides depending on an individual's injuries?
- What ensures safety on the ride? For example, are there harnesses / straps / tie downs to secure the individual?
- Will I have assistance to get on and off the rides?
- What security measures are in place to keep the wheelchair safe while the user is on a ride?
- Are there special programs for guests with disabilities to enjoy the park when it is not crowded?

Restaurants / Bars

We recommend calling the restaurant prior to arriving or booking reservations and asking about the accessibility of the space. In the US, while the ADA exists as a guide for restaurants, there are many establishments that are historic and may not be fully accessible. This is also something to watch for when traveling internationally. Some recommendations we have include:

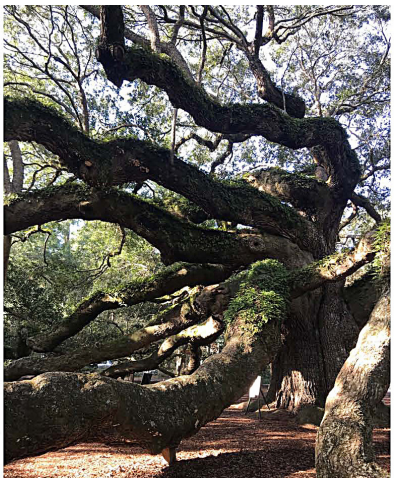
- Call ahead for reservations to avoid long waits in crowded areas. This can guarantee that the accessible space needed is reserved.
- Consider bringing adaptive utensils that are used on a regular basis. However, know that restaurants are required to make some reasonable modifications for their customers with disabilities in the USA. For example, if a traveler does not bring their own utensils, assistance may be given including providing straws, cutting up foods, or obtaining utensils that may be easier to handle for the customer.
- Ask about the accessibility of the space – automated doors, door width, ramp availability, and restaurant space. Per the ADA, door entrances should be 36 inches across to accommodate a wheelchair, there must be a section of the checkout counter that is no higher than 36 inches, and 5% of tables must be accessible if offering seating.

QUESTIONS FOR RESTAURANTS / BARS

Restaurants/Bars

- Is there accessible parking? How many spaces are provided?
- Is there an accessible entrance?
  - If not, will there be assistance available to provide the individual in and out of the restaurant / bar?
  - Is there a portable ramp available?
- Are the restrooms accessible?
- What is the height of the bar? Is there seating available in the bar area for wheelchair users? Are the bar stools fixed?
- Are tables at an appropriate height for wheelchair users?
- Are there restrictions with regards to where mobility devices can be placed (crutches / walker / wheelchair / scooters) – if seating requires an individual to transfer to a regular seat?

Accessible pathway at Sagamore Hill National Historic Site, Oyster Bay, New York, USA.



Angel Oak Tree, Charleston, South Carolina, USA.

Garden of the Gods Park, Colorado Springs, Colorado, USA.

Parks and Recreation

In recent years, there has been movement towards providing more accessible outdoor experiences for the mobility-impaired. This includes removing barriers in parks and recreation, creating more accessible pathways, and even providing recreational programs with adaptive sports. In the U.S., for example, many of the national parks offer programs for wheelchair users and provide excellent information on their websites regarding accessibility. Park rangers are also excellent resources. Some of the most accessible U.S. National Parks include:

- Acadia National Park (The Jesup Path, and the 45 mile carriage road system are great options. Check out their wheelchair accessible carriages at Wildwood Stables.)
- Grand Canyon National Park (They provide accessible shuttle buses, multiple wheelchair friendly viewpoints and trails, and the Trail of Time are all accessible!)
- Yellowstone National Park (Old Faithful has an entire boardwalk that makes it accessible to see the geyser, and wheelchair rentals are also available!)
- Great Sand Dunes National Park (Sand wheelchairs are available to climb the sand dunes with advance notice.)

If planning a road trip to one of the national parks, consider renting a wheelchair accessible RV. Check out: https://www.outdoorsy.com to look for RVs designed specifically for the mobility-impaired.

QUESTIONS FOR PARKS AND RECREATION

Parks and Recreation	• What is the terrain (wood chips, rubber mulch, stones)? • Are there boardwalks / sidewalks / accessible hiking trails? Are there areas dedicated to mobility-impaired individuals? • Are there restricted areas? • Are there special outdoor recreation programs for wheelchair users/ mobility-impaired individuals? • Are adaptive sports and rental equipment offered? • Are wheelchair rentals available? • How much time is needed to reserve any rentals? • For locations with pool access - is it accessible? Is there a ramp / lift into and out of the pool? What is the water temperature? • Do wheelchair lifts and rental equipment all work appropriately?

Entertainment Venues

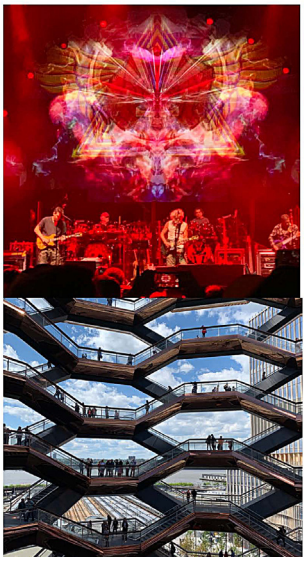
Most entertainment venues are accessible and provide wheelchair seating for disabled customers. Some tips for booking concert / theater / sporting events are listed below:

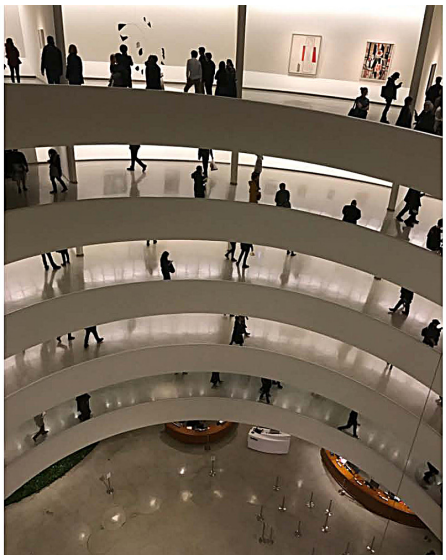
- Online booking may not always offer wheelchair seating or seating for a customer's companion. We recommend calling to ask if there are adjoining seats available. They may also offer discounted pricing!
- For sold out events, always ask if there is still wheelchair seating available. The likelihood is that these may still be available.
- If the theater does not have specialized wheelchair seating, this may require a transfer to a regular seat. Make sure to ask about safety and security protocols for any DME.

QUESTIONS FOR ENTERTAINMENT VENUES

Entertainment venues

- Are there special entrances for wheelchair users / mobility-impaired?
- Are the bathrooms accessible?
- Are concession stands wheelchair accessible?
- Is there a dedicated wheelchair seating section available for wheelchair users and their companions?
- Are there wheelchair lifts and do they work?
- Is discount pricing offered?
- Is there assistance provided from venue staff if needed?





Top left to right: CitiField Concert, Queens, New York, USA; Vessel, Hudson Yards, New York, New York, USA; View of the Manhattan Bridge, Brooklyn, New York, USA; Guggenheim Museum, New York, New York, USA.

Cruises

Cruises are one of the best ways to travel for PwDs as most modern cruise ships have already been designed or renovated to meet accessibility requirements! It is a hotel, transportation, and attraction all in one. Many of the previous questions for hotels and transportation can be applied here as well.

Cruises may also have on-site availability for medical equipment and can include mobility aids like wheelchairs, canes, walkers, rollators, raised toilet seats, and transfer benches. However, these are often limited and require advance notice for reservations. Cruise lines do warn that wheelchairs may not be available for shore excursions off the ship. It is recommended that the cruise line be contacted between 30-90 days prior to travel for any special needs. In addition, it is important to check with the cruise line to ensure that any mobility aids are not restricted from the ship.

Speak with a cruise line representative to discuss specific requirements to ensure that personal DME needs are met. Most companies offer an online access form that is required to be completed where DME needs can be detailed.

Some cruise lines have special affiliations with outside rental agencies that can provide travelers with their durable medical equipment needs. The following two are recommended by almost all of the cruise lines:

- Scootaround: Personal Transportation Solutions (North America and cruises): https://www.scootaround.com
- Special Needs Group/ Special Neets at Sea (International): https://www.specialneedsatsea.com

This is the only company referred by ALL major cruise lines and provides rental medical equipment delivery straight to cruise rooms (or hotel / airport). Make sure to book at least 7 days in advance for domestic ports and 15 days in advance for international ports. Wheelchairs, scooters, and power wheelchairs can be reserved online, but all other specialty equipment must be reserved over the phone (1-954-585-0575 or 1-800-513-4515).

While most cruise ships are accessible, not all ships are created equal! For example, river cruise vessels tend to be slim and low by design, and often do not have elevators to the upper viewing deck, so access may be limited. Cruise destinations also have variable levels of accessibility, and adequate accessibility is not always guaranteed. It is important to be aware that certain ports may not be accessible to individuals using wheelchairs or mobility scooters and require "tenders" which are small boats that transfer passengers from ship to shore. Ship officials will determine for whom it is safe to board the tenders. Cruise lines are also generally not responsible for ports of call or shore tours that are not wheelchair accessible. It is recommended that potential complications be discussed with the company prior to booking.

The following are a list of the major cruise lines and their contact information regarding special needs / disability travel as well as any restrictions they may have. Many have special access desks that travelers can call, but booking through a travel agent may also provide assistance with regards to any DME related queries.

Cruise Line	Booking and Contact Information	Restrictions and Other Notable Information
Carnival Cruises	Tickets by Phone: 1-800-764-7419 Online booking: https://www.carnival.com Guest Access Team: 1-800-438-6744 access@carnival.com	• Complete the online Mobility Questionnaire prior to departure. • Guests must bring their own wheelchair / scooter not to exceed 21" in width if purchasing a standard or ambulatory stateroom. If a wheelchair / scooter is larger than 21", a fully accessible stateroom must be purchased.
Celebrity Cruises	Online booking: https://www.celebritycruises.com Access Department: 1-954-628-9708	• Prior to departure, complete the online Guest Special Needs form to meet specific needs. • Devices 23" or less in width will fit through standard stateroom doors and 32" or less through an accessible stateroom door.
Disney Cruise Lines	Online booking: https://disneycruise.disney.go.com Special Services: 407-566-3602 Under the "Support" tab, click on "Guests with Disabilities" for more information.	• Download the online Information for Guests with Disabilities or Medical Conditions guidebook to get an overview of the accessibility features and special services. • Standard staterooms have a 23" wide doorway while accessible staterooms offer a 32" doorway. • Complete and submit the online Special Services Information Form at least 60 days prior departure. • Disney Cruises Lines provides special equipment upon request including raised toilet sheets, transfer benches, and wheelchairs. Submit the Special Services Information Sheet at least 60 days before departure.

continued on next page

Cruise Line	Booking and Contact Information	Restrictions and Other Notable Information

Holland Cruise Lines	Online booking: https://www.hollandamerica.com
	Accessibility information: 1-800-547-8493 HALW_Access@hollandamerica.com
		• A Special Requirements Form is encouraged to be filled out to help meet the needs of any passenger with a disability in a timely manner. Of special note, Holland American Line does not provide complimentary wheelchair assistance for any purpose other than embarkation, disembarkation, and emergency situations. In addition, any passenger that requires help with ADLs needs a travel companion. Restrictions for mobility devices are as follows:
		  • Width: 23" (59cm) maximum in order to be accommodated in a standard stateroom, unless collapsible to a width of 23" (59cm) or less
		  • Weight: 100lbs (45kg) without battery
		  • Batteries: Must be Gel or Dry Cell or AGM (Absorbed Glass Mat) only

Norwegian Cruise Line	Online booking: https://www.ncl.com Access Desk: 1-866-584-9756 accessdesk@ncl.com	• They recommend planning in advance at least 90 days for interpreters and 60 days for all other requirements including renting medical equipment. • There is a limited supply of wheelchairs on board for emergency rental. • Accessible staterooms offer wider door frames, roll in showers, shower benches, high-rise toilets, and handrails in shower and toilet areas.
Princess Cruise Lines	Tickets by Phone: 1-800-774-6237 Online booking: https://www.princess.com Access Office: accessofficeprincess@princesscruises.com	• Offers accessible staterooms that include a roll-in shower with grab bars and a fold-down bench seat, an accessible closet, and writing desk.

continued on next page

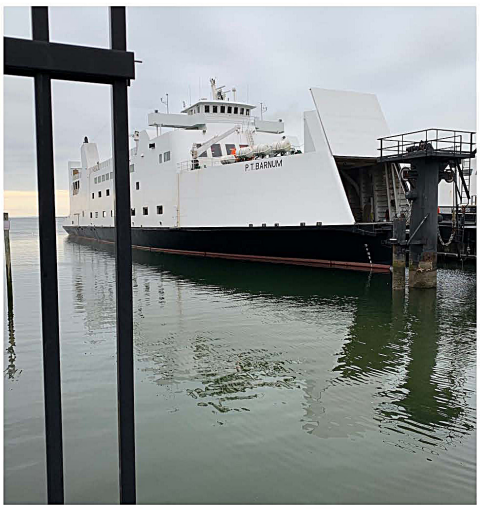
Cruise Line	Booking and Contact Information	Restrictions and Other Notable Information

Royal Caribbean	Tickets by Phone:
	1-866-562-7625
	Online booking:
	https://www.royalcaribbean.com
	Access Department:
	866-592-7225
		• Complete the online Special Needs form which requires advance notice if traveling with disability:
		  • 60 days for sign language interpreting
		  • 30 days for special needs equipment or services
		• Review Accessible Seas brochure for additional accessibility information.
		• Accessible stateroom features: Door width 32"-34" (81-86cm), roll-in shower with fold-down bench, grab bars and hand-held showerheads, lowered sink/vanity, and more.

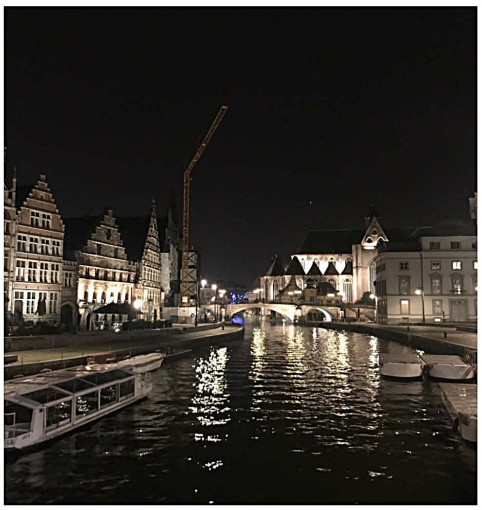
Viking Cruises	Tickets by Phone: 1-855-338-4546 Online booking: https://www.vikingcruises.com	• PwDs must travel with an able-bodied companion as staff is not permitted to lift guests or push wheelchairs. • Guests must provide or rent mobility devices. Motorized scooters are not permitted. • Complete Accessibility Form at least 30 days prior to departure.
Silversea	Tickets by Phone: 1-888-978-4070 Online booking: https://www.silversea.com	• Offers accessibility-enhanced shore excursions.

Table 13: Cruise Lines Information for Accessibility Needs

Carnival Cruise Lines, Caribbean.



Port Jefferson Ferry, Port Jefferson, New York, USA.



Riverboat cruises on the canals of Ghent, Belgium.

GENERAL CRUISE QUESTIONS

General Property Questions	• Are the entrances accessible with ramps? • What are the door dimensions? • Can power wheelchairs / scooters be used aboard the ship? • Is there adequate space for maneuvering a wheelchair? • Are there elevators? Can they accommodate a wheelchair? • Is there wheelchair seating? • Is it possible to get off the ship at stops along the way in a wheelchair? • Is the swimming pool on the ship accessible? • Can medical equipment or mobility aids be rented for use on the cruise?
Cabin	• Will there be an accessible room available? • Are the doors easily operated? What kind of handle? Are there mechanical doors? • What are the dimensions of the room door? • What are the dimensions of the room? • Is there enough space in the room to maneuver a wheelchair? • How much space is between the bed and the wall? • What is the height of the bed from the floor? • Can the bed be raised / lowered?
Cabin Bathroom	• What are the dimensions of the bathroom? • Is there space for a wheelchair to fit under the sink? • What type of shower is there? Is there a roll in shower available? Does the shower have a seat / bench / grab bar? • Is the bathroom equipped with grab bars?

ACCESSIBLE TRAVEL TOURS WITH SPECIALIZED TRAVEL AGENCIES

PwDs who travel with assistive devices can choose to book an accessible travel tour or be adventurous on their own. The advantage of utilizing accessible tour companies or travel agents is that they will already have DME needs in mind. Tour guides are seasoned, and in many cases may be in wheelchairs themselves, so all activities will have accessibility prioritized. Accessible tours may also provide accessible hotel accommodations and transportation, as well as customized accessible itineraries with information on tourist sights / attractions. Remember, if a company truly specializes in accessibility, they will utilize the flattest, smoothest, shortest tour routes or provide transportation to bypass difficult roads.

Check out these accessible tour companies and travel agencies.

Accessible Tours	Website
Travel for all: Customizes vacations around the world, helps meet specific accessible travel needs.	https://www.travel-for-all.com
Sage Traveling: European accessible trip planners help create custom accessible trips for people with mobility issues. Includes hotel accommodations, accessible transportation, and detailed accessibility information on attractions.	https://www.sagetraveling.com
Spin The Globe Travel: Travel blog by a wheelchair traveler who shares information on accessibility of destinations all around the world.	https://www.spintheglobetravel.net
The Relaxed Explorer: Provides European tours for people with mobility issues. Provides accessible hotels, attractions, transportation and restaurants.	https://www.Therelaxedexplorer.com
Disabled Accessable Travel: European travel agent. Custom tours to individual needs. Provide accessible travel services to people of all mobility levels.	https://www.disabledaccessibletravel.com
Wheelchair Escapes: Certified accessible travel specialist offering help planning trips to a variety of destinations.	https://www.wheelchairescapes.com
Curb Free with Cory Lee: Wheelchair travel blog offering tips and advice on wheelchair traveling around the world.	https://www.curbfreewithcorylee.com
Cruise Planners Easy Access Travel: Travel planners dedicated to meeting the needs of disabled and mature travelers	https://www.easyaccesstravel.com
Wheel the World: Accessible experiences and detailed accessibility information about your destination	https://www.gowheeltheworld.com
Disabled Traveler: Comprehensive listing of accessible travel specialists around the world	https://www.executiveclasstravelers.com/1
Ability Trip: Resources for disabled travelers and companions. Including accommodations, activities, restaurants, emergency services	https://www.tribability.net
Disabled Travelers: Guide to the world: help planning, deciding where to travel and travel around the world with disabilities	https://www.disabledtravelersguide.com
Emerging Horizons: An online quarterly newsletter providing a wide range of information for travelers of all mobility levels	https://www.emerginghorizons.com
World on Wheelz: Accessible travel resource for wheelchair users and people with disabilities.	https://www.worldonwheelz.com

Table 14: Accessible tours

There are some fantastic tours in North America provided by Amtrak and Via Rail (Canada) that are wheelchair accessible. Here are two of the most noteworthy:

- The Grand Canyon Railway is a 2.5 hour long trip through the South Rim of the Grand Canyon providing accessible first class and coach cars for wheelchair users.
- The Rocky Mountaineer Railtours offers multiple Canadian rail tours through the Canadian Rockies, with the Vancouver to Calgary Kicking Horse Route touted to be the most accessible.

QUESTIONS FOR TRAVEL COMPANIES

General Questions	• How many people with disabilities have you guided in the past year? • Are there any restrictions for travelers with wheelchairs? • Is accessible transportation to and from the airport and hotel available?
Accommodation Questions	• What accommodations for travelers with wheelchairs are provided? • Is accessible transportation from the hotel to and from sites/ attractions available? • If transportation is not provided, what are the recommended accessible transportation services? • How accessible are the hotels? (How wide are the doors? Do you have ramps? Do you have elevators?) • Is it possible to rent any durable medical equipment from the hotel? And if not, what resources are available to arrange rentals?
Tour Questions	• What makes your tours accessible? • Is it a private tour, or will there be other travelers? • What does an example itinerary for a traveler with a wheelchair look like? • What tourist attractions do you visit? • What kind of assistance will be provided for travelers with wheelchairs during tours? • Is there an expectation to keep up with able-bodied travelers?
Tour Guide Questions	• Is the tour guide trained to consider accessibility for people with disabilities? • Is the tour guide a licensed professional?
Route and Attraction Questions	• What route will the guide use? • Does it involve curbs, steps, cobblestones, or other uneven terrain? • Are there sites/attractions that are not wheelchair accessible/limited accessibility?

COMMUNITY OUTINGS AND STAYCATIONS

We initially started this manual to help novice SCI individuals plan for new travel excursions domestically and internationally. However, as the world changed, travel was redefined as a means to reintegrate back into the community. This guide evolved to include community outings and staycations. In fact, we recommend that novice travelers use this manual to test the waters in their own communities! Use the above information to create a question worksheet and plan a trip to a restaurant, museum, recreational park, or concert venue. If planning a major outing still feels overwhelming, start small and go slow. Consider running simple errands just to practice preparing, packing, and leaving home for incrementally longer periods of time.

Before going out into the community, travelers should consider the "Four P's." These include *planning* what needs to be done, *prioritizing* errands based on importance, *pacing* to give enough time for each activity, and *positioning* oneself for success in the built environment.

Plan	Prioritize
• Identify where to go. • Determine transportation to get there (see below). • Make appointments ahead of time. • Determine times when stores are the least busy to decrease obstacles. • Write a list of items needed to buy at a store or a list of questions for a medical professional. • Complete all self care tasks, particularly bowel and bladder routines, to help prevent accidents and limit trips to the bathroom while in the community. • Bring necessary items to make the trip successful.	• Pick a day of the week when one can prioritize the community outing over other responsibilities. • Do not try to complete a shower, all household management tasks, bill management, etc. on the same day of the trip to save energy for the outing. • If running multiple errands, prioritize the most important ones first.
Pace	**Position**
• Ensure enough time is left between errands, particularly for appointments that are time sensitive or if public transportation is being used. • While at different locations, ensure plenty of time to take rest breaks as needed to avoid feeling rushed.	• Picture the built environment to increase preparedness for potential barriers that may arise. • Call the location for additional information if needed. Below is a list of questions to use for guidance.

Table 15: The four P's of community travel

Community Outing Packing Checklist

Shorter community outings require less mobility and ADL needs compared to longer trips. Below is a list of various items and accessories that can increase independence during a community outing. This list is not meant to be an exhaustive one but is designed to help the SCI traveler to troubleshoot while out in the community. We recommend having an "errand" or "emergency" backpack / knapsack on one's person or in one's vehicle with the most essential items. Similar to a "carry-on" luggage, it should, at the very least, contain one's personal information / medication list, first aid kit, hygiene kit, bowel and bladder supplies, and a change of clothes. If planning a staycation at a local hotel, build a checklist based on day-to-day needs as a starting point and edit the list to include only what will be needed.

Items	Potential Uses
Various Carrying Options • Backpack • Armrest Tote • Under seat bag • Drainage bag holder • Cup holder	These carrying options are useful to: • Hold newly bought items. • Keep a cell phone within reach. • Keep bladder equipment out of sight. • Stay hydrated during the outing. • Keep hands free for easier wheelchair mobility.
Adaptive Equipment • Grabber • Long handled mirror • Upper extremity splints/braces • Wheelchair gloves • Wheelchair power assist	• Grabbers are helpful to obtain items dropped on the floor or out of reach at a store. • Long handled mirrors can be used for bathroom needs or to see inside containers on high shelves. • Splints and braces can help with eating a snack or with performing wheelchair mobility. • Power assist devices can help save energy.
Personal Items • Cell phone • Daily medications • Bowel and bladder equipment • Medical information (autonomic dysreflexia card or medication list) • Disability parking permit	These personal items are useful to: • Contact family or friends in case of emergency. • Care for bowel and bladder needs. • Share information in case of an emergency.

Table 16: Community outing packing checklist and potential uses

Local Transportation

Traveling within the local community is largely dependent on proximity to desired locations and access to transportation, whether that be with a personalized vehicle, public transportation, or utilizing a pick up service. Access to transportation for PwDs still pose some limitations despite the passing of the ADA, however there have been major improvements and increased options.

Owning a personal vehicle with specific modifications based on an individual's injury (see Figure 3) is now more available. We recommend scheduling an appointment at a driving clinic with an occupational therapist or driving evaluator to determine appropriate modifications and dealerships if interested in purchasing one. While owning a personal vehicle allows for increased flexibility, cost may be a deterrent. We still, however, recommend speaking to a specialist to educate PwDs on options and possibilities for increasing mobility independence in the community.

Public transportation including bus and rail systems have become more accessible, and provides a more cost-effective option for travel for SCI individuals. We recommend researching one's local public transportation system and utilize the questions in previous transportation sections to plan a trip. Make sure to consider the following information:

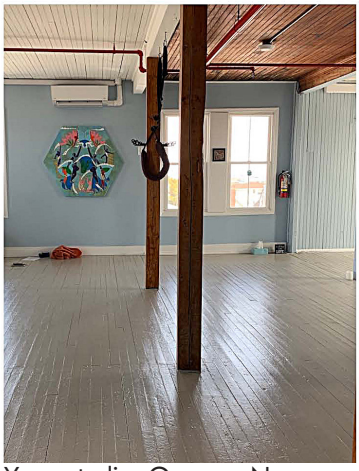
- Wheelchair / Assistive device measurements.
- Weight regulations.
- Accessibility of bus/train.
- Accessibility of stations.
- Priority seating.
- Discounts and perks.

If a person is functionally unable to use the fixed bus route system due to disability, one can apply to become eligible for ADA paratransit. Paratransit allows individuals to call and book transportation for door-to-door service as long as it is within ¾ of a mile to a defined bus route. The American Disabilities Act, title 49, subpart F clarifies the standards and process to become eligible for this service. Below are resources to assist with this process.

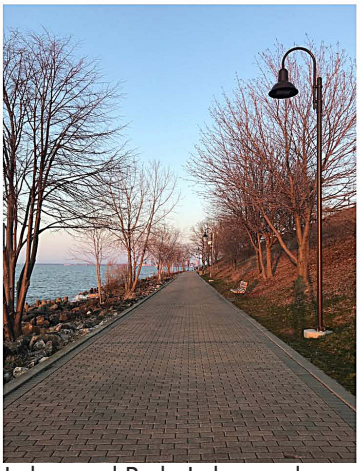
- Disability Rights Education and Defense Fund
  - https://dredf.org/ADAtg/elig.shtml
  - https://dredf.org/news/publications/ada-paratransit-eligibility/

Community Destinations

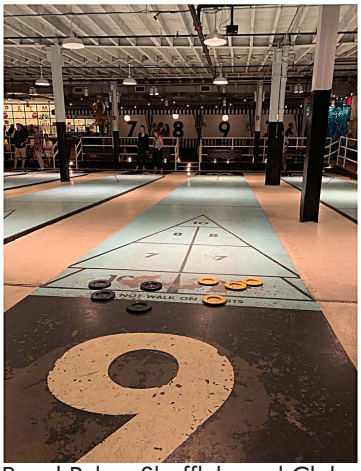
The following is a modified list of questions for community outings. We have also put together location specific questions to places that are most commonly visited on a day to day basis.



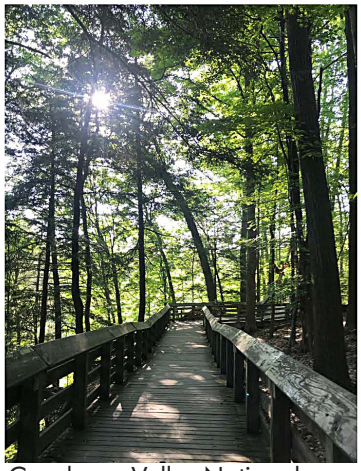
Yoga studio, Queens, New York, USA.



Lakewood Park, Lakewood, Ohio, USA.



Royal Palms Shuffleboard Club, Brooklyn, New York, USA.



Cuyahoga Valley National Park, Northfield, Ohio, USA

GENERAL QUESTIONS FOR COMMUNITY LOCATIONS

- How many handicap parking spots are available?
- How much space is in between the handicap parking spots?
- What day of the week and times are typically most busy?
- Are there accessible entrances / ramps? Are there automated doors? Elevators?
- How wide are the doorways?
- Is there an accessible bathroom?

LOCATION SPECIFIC QUESTIONS

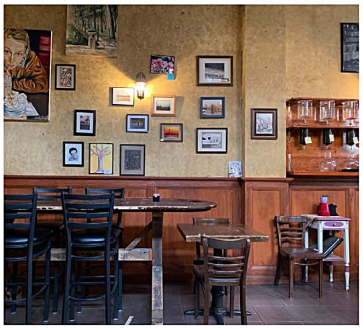
Physician Office/Dentist	• Is it possible to complete the exam in a personal wheelchair?
	  • If not, is the exam table at a lower height to accommodate transferring from my wheelchair?
	  • Are personnel skilled to assist me to transfer if needed?
	• Will the exam equipment and imaging devices accommodate someone in a wheelchair?
	• Is any equipment to assist with tilting my manual wheelchair during the exam offered (for example the Versatilt device)? If not, can accommodations be made?

Places of Worship	• Is there a dedicated wheelchair seating section available for me and my companion? • Are rows and isles wide enough for a wheelchair?
Barber Shop / Beauty Salon / Spa	• Is it possible to receive a haircut in a personal wheelchair? • How tall is the sink? Is it possible to wash hair using a washing tray or inflatable shampoo bowl if brought? • Is it possible to allow extra time for appointments? • Is there staff willing to assist with positioning in a wheelchair as needed if I can direct what to do?
Nail Salon	• How tall are the nail tables? • Is there space underneath to fit a wheelchair?

continued on next page

LOCATION SPECIFIC QUESTIONS, continued

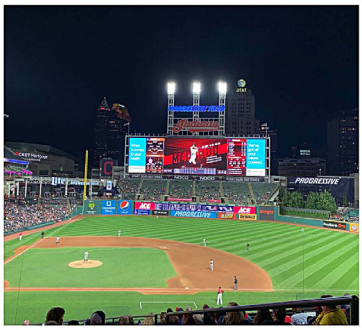
Gym / Health Club	• Do you have weight machines that are accessible for me in a wheelchair? • Are your locker rooms wheelchair accessible? • Are there staff members with experience helping individuals in a wheelchair? Can they help develop a workout plan? • Can a caregiver accompany me, for no additional cost, to help with equipment set up and transfers? • Are adaptive equipment / sports offered?
Stores Grocery Local Businesses Shopping Malls	• Are there scooters or other wheelchair friendly carts? • How wide are the isles and check out lanes? • When is the store typically the least busy? • What day of the week are shipments received? • Are staff members available to assist individuals in a wheelchair to push their cart or obtain items out of reach?
Entertainment	• See Attractions section
Local Parks and Recreation	• See Local Parks and Recreation section



Babylon Bean Coffee House, Babylon, New York, USA.

Belmont Stakes, Queens, New York, USA.

Peace, Love, & Little Donuts, Fairview Park, Ohio, USA.



Progressive Field, Cleveland, Ohio, USA.

INTERNATIONAL TRAVEL

International travel is absolutely possible, and advancements in technology and tourism have opened many opportunities for travel to countries for people with disabilities. Traveling abroad brings its own challenges, including language barriers, visiting historic sites, and developing countries.

While the ADA exists in the USA, accessibility laws do change and travelers should become familiar with accessibility laws of the destination country. Remember, accessibility may be defined differently in other countries. What may be covered in the U.S. may not be covered in other destinations.

If traveling outside of the US for the first time, we recommend starting things slow and building up experiences!

- Consider going to an English speaking country first before venturing to countries where the language can pose a barrier to communicating needs.
- Limit the number of countries to be visited, as coordinating multiple hotels, and multiple ways of transportation can be complex in a foreign country.
- Remember that many hotels are in older or historic areas and may not be able to accommodate a wheelchair. We recommend choosing hotel chains that have known accessible features. We also recommend staying in larger cities where accessibility may be more available compared to more remote areas.
- Consider taking an accessible tour or booking a tour with an agent who specializes in accessible travel. This can help ease the stress of travel as these agents / companies will already consider the barriers to travel and provide solutions.
- Be aware that some developing countries may not have accessible public transportation available and will solely rely on private transportation services for wheelchair travelers. This may increase the budget of the trip, so make sure to account for the extra cost.
- Prepare for medical emergencies abroad! Keep medical information, medication list, allergies, and primary physician's contact information on hand at all times. Pack an extra week's worth of supplies and ensure that vendors can send supplies to the destination in case of a prolonged stay.
- We also recommend enrolling in the Smart Traveler Enrollment Program (STEP) https://step.state.gov/step/, which is a free service allowing US citizens and nationals to receive security messages while traveling or living abroad for the US Embassy or consulate to help in an emergency.

As more PwDs seek travel across the globe, identifying the most accessible travel destinations is becoming more important than ever. While surveys do exist, there is a lack of standardization or more rigorous data out there to judge all cities uniformly. The European Commission, for example, has been awarding the Access City Award since 2011 to the most accessible city in Europe based on:

- Accessibility to the built environment and public spaces
- Accessibility to transportation and related infrastructures
- Accessibility to information and communication, including information and communication technologies
- Accessibility to public facilities and services
- Plans for equal access for and improvement of quality of life for PwDs
- Sustainability of accessibility measures
- Involvement of PwDs and relevant partners in policies and accessibility measures

The following cities from 2011 to 2020 have been recipients of the award:

- Avila, Spain
- Salzburg, Austria
- Berlin, Germany
- Gothenburg, Sweden
- Boras, Sweden
- Milan, Italy
- Chester, UK
- Lyon, France
- Breda, Netherlands
- Warsaw, Poland

Other surveys done by 101 Mobility, New Mobility, Access2Mobility, Christopher and Dana Reeve Foundation, Sunrise Medical, and Booking.com identified accessible destinations but all had different criteria to determine a city's "accessibility" including the number of physicians, climate, and accessibility of public transportation and buildings. The following have been consistently listed as some of the most accessible cities in the world outside of the United States and have been endorsed by the European Network for Accessible Tourism (ENAT) for European countries:

- Bridgetown, Barbados
- Berlin / Frankfurt, Germany
- Rome / Milan, Italy
- Vienna, Austria
- Barcelona, Spain
- London, United Kingdom
- Oslo, Norway
- The Republic of Singapore
- Jerusalem, Israel
- Dubai, United Arab Emirates
- Sydney / Melbourne, Australia

All the above cities have accessible tourism websites that provide a wealth of information to help plan an international adventure.

Vizcaya Museum and Gardens, Miami, Florida, USA.

CONCLUSION

Travel for those with spinal cord injury poses many unique challenges, but the rewards of seeing the world are boundless. Here are some key takeaway points from this travel guide:

- Know both domestic and international disability rights!
- Consider day-to-day needs when building the packing checklist and the ADL and mobility needs checklist.
  - Include any medical information that is necessary (e.g. autonomic dysreflexia card, medications, doctor's note describing needs / illness, physician information).
- Prepare DME equipment appropriately, and troubleshoot before leaving.
  - Take pictures before traveling. Laminate pictures and keep them on one's person in case of any damage.
  - Research insurance to determine what will be covered if equipment gets damaged. Check equipment warranty and see what is covered for travel damage.
  - Have a kit with spare parts for the assistive device of choice (lubricant, bolts, wrenches, allen keys, duct tape, patch kits, extra tubes).
- Start with small outings in the community and work up to longer trips.
- Advocate for individual needs when booking trips! Ask questions to ensure needs are met!
- Build in extra time, have back up plans, and remain flexible to be able to deal with unforeseen challenges.
- Ask for help! Talk to other PwDs, therapists, vendors for any tips regarding travel!

The most important thing to do is to ENJOY the trip!

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