# Demonstrating Assistive Technology for Mobility

## Knowledge and Skills

1. Understands function(s) of the device type
2. Wheeled mobility – Manual wheelchair, power wheelchair, scooter
3. Mobility aids – Walker, crutches, canes, knee walker/scooter
4. Accessories for mobility aids – Variety of driving mechanisms for manual and power mobility, special tips, grips, baskets, trays, bags, cup holders, etc.
5. Understands who can benefit, “eligibility” requirements or misconceptions
6. Familiar with “prerequisite” model and current thinking regarding the need (or lack thereof) of prerequisite skills
7. Understands the simple and more complex technologies available
8. Understands the variety of devices available
9. Understands and is able to explain to consumers vocabulary related to the device, the features, and the functions.
10. Power mobility: hi/lo; all terrain; tilt in space vs. recline; integrated controls; general types of driving mechanisms; custom seating
11. Manual wheeled mobility: lightweight vs. standard wheelchair; specialty wheelchairs, i.e. sport chairs, one-handed drive, foot propelled, transport chairs; rim variations for improved grip; desk arms/standard arm; custom seating
12. Walker types: standard walker, front wheel walker; roll-a-tor; walker with seat; leg tips
13. Knee Walker/Scooter types and skill requirements
14. Cane types: Quad cane, standard cane, type of handle/grip, various cane tips
15. Crutch types: standard crutch, Loftstrand or forearm crutch, various grips and tips
16. Mobility device accessories: wheelchair mounts for electronics: tablet, phone, computer, communication device; cup holder; various types of driving joysticks, switches/switch arrays; trays or baskets; brake extensions; various tips for canes, crutches, walker
17. Able to compare and contrast product types, according to features, capabilities, typical users; price range
18. Wheeled mobility: manual wheelchair, power wheelchair, scooter
19. Walker types: standard walker, front wheel walker, four-wheel walker, knee
20. Cane types: quad cane, standard cane
21. Crutch types: underarm crutch, forearm crutch
22. Accessories
23. Able to compare and contrast at least three products in each sub category, including multiple/diverse manufacturers
24. Able to discuss related technologies
	1. Custom seating for wheelchairs
	2. Specialized cushions
	3. Specialized drive arrays
	4. Integrated controls (computer access, environmental controls, communication, etc.)
25. Has a basic understanding of potential funding sources for this technology (i.e. sufficient to make referrals)
	1. Recommendations for specific equipment will be made by OT, PT, or a rehabilitation specialist;
	2. A doctor’s order or prescription is necessary for the client to submit for possible insurance coverage;
	3. Understands the definition of ‘durable medical equipment’ and what is included and not included in this category;
	4. What equipment is covered by insurance companies, including Medicare and Medicaid;
	5. Know the community resources that will provide information regarding insurance, state programs, and non-profits that provide mobility equipment
26. Other considerations: Demonstrator does not need to be a mobility specialist (i.e. OT or PT, Rehab Engineer, etc.) but must be able to explain the need for full evaluation vs. this “demonstration”; who (type of specialist) the evaluation should be conducted by and able to make referrals to local evaluator(s).
27. Resources for gaining additional information on this topic:
	1. Organizations, training materials on vendor/manufacturer websites, video channels such as YouTube- examples:
		1. US Spinal Organization: <https://www.unitedspinal.org/resource-center/askus/index.php?pg=kb.printer.friendly&id=19>
		2. The Role of Occupational Therapy in Providing Seating and Wheeled Mobility, <https://www.aota.org/~/media/Corporate/Files/AboutOT/Professionals/WhatIsOT/RDP/Facts/Wheeled-Mobility-fact-sheet.pdf>
		3. Walking Equipment: <http://www.dlf.org.uk/factsheets/walking#two>
		4. Vendor site examples (not exclusive): [www.invacare.com](http://www.invacare.com); [www.permobilius.com](http://www.permobilius.com); [www.sunrisemedical.com](http://www.sunrisemedical.com); [www.roho.com](http://www.roho.com); [www.pridemobility.com](http://www.pridemobility.com); [www.tilite.com](http://www.tilite.com); [www.comfortcompany.com](http://www.comfortcompany.com)
	2. Conferences that typically offer positioning and mobility topics/vendors:
		1. ATIA
		2. CSUN
		3. RESNA
		4. Closing the Gap
		5. MedTrade
		6. National Seating and Mobility Symposium
		7. AOTA and APTA Conferences
	3. Books and articles on seating, positioning and mobility:
		1. Cook, Hussey, Polgar *Assistive Technologies*, *Principles and Practice* Mosby Elsevier 2008.
		2. Neville, Laura  *The Fundamental Principles of Seating and Positioning in Children and Young People with Physical Disabilities* 2005.
		3. Angelo, J. & Lane, S. (eds.). (1997). Assistive Technology for Rehabilitation Therapists. Philadelphia, PA: F.A. Davis Company.
		4. RESNA, ed. (1999) Fundamentals in Assistive Technology, 2nd edition. Arlington, VA: RESNA.
		5. RESNA, ed. (2011) RESNA Wheelchair Service Provision Guide. Arlington, Va: RESNA.
		6. Maddox, S. (2003). Paralysis Resource Guide. Springfield, NJ: Christopher Reeve Paralysis

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