

# An Older Driver Rehabilitation Primer for Occupational Therapy Professionals

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The roles of occupational therapists are as variable as the settings in which they work. Although each setting is unique, the overall goal is to build “skills for the job of living,” those that are necessary for independent and satisfying lives.

In the United States, driving is the primary mode of transportation. Occupational therapy practitioners need to be knowledgeable about driving and community mobility, as this is a vital link to the community for clients. As instrumental activities of daily living (IADLs), community mobility and driving touch all areas of occupation, including education, work, play, leisure, and social participation. Occupational therapy practitioners’ role is to assist clients in the engagement of meaningful and purposeful activities. Practitioners can choose to specialize or to be a resource for clients and physicians. In either case, a baseline of knowledge in driving and community mobility is necessary.

The purpose of this primer is to

1. Define the roles of occupational therapy and physicians, building on material from the *Physician’s Guide to Assessing and Counseling Older Drivers* (Wang, Kosinski, Schwartzberg, & Shanklin, 2003), with emphasis on screening and evaluation of driving safety and maintaining community mobility
2. Provide baseline of knowledge for screening and assessment for impairments that may be “red flags” for unsafe driving risk in a variety of settings
3. Present a continuum of driver rehabilitation highlighting the roles of occupational therapy generalists and occupational therapy driver rehabilitation specialists
4. Acquaint readers with the vast resources available regarding older driver mobility.

## Physician and Occupational Therapy Roles in Driving and Community Mobility

In 2003, the American Medical Association (AMA), with support from the National Highway Traffic Safety Administration (NHTSA), published the *Physician’s Guide to Assessing and Counseling Older Drivers* (Wang et al., 2003; available free from 312-464-4179 or [www.ama-assn.org/go/olderdrivers](http://www.ama-assn.org/go/olderdrivers) or [www.nhtsa.dot.gov](http://www.nhtsa.dot.gov)). This guide was created to “help physicians address preventable injuries—in particular, those injuries incurred in motor vehicle crashes” (Wang et al., 2003, p. 9). Among other health care professionals, occupational therapists were involved in the creation and review of this extensive publication. This tool is highly recommended as a resource for all Occupational Therapy professionals.



Since 2003, the American Medical Association, with support from the National Highway Traffic Safety Administration, has administered a Train-the-Trainer program based on the *Physician’s Guide to Assessing and Counseling Older Drivers*. The program is designed to educate physicians and other health care professionals on the public health issue of older driver safety and to train them to better assess and counsel patients for medical fitness to drive.

Occupational therapists also have participated in the AMA Older Drivers Project (see [www.ama-assn.org/ama/pub/category/15943.html](http://www.ama-assn.org/ama/pub/category/15943.html)) to disseminate both the written curriculum and provide oral presentations to physicians at educational conferences. Occupational therapists can choose to specialize in this field of driver rehabilitation; however, community mobility is an issue to be addressed regardless of area of practice.

The graying of the baby boomer generation is a frequent topic in the media. Older people are the fastest growing segment of the U.S. population. A 2006 report for the National Institute on Aging by the U.S. Bureau of the Census reported that

1. The U.S. population ages 65 and older is expected to double within the next 25 years.
2. By 2030, almost 1 of every 5 Americans (about 72 million people) will be ages 65 years or older.
3. The group of people ages 85 and older is the fastest growing sector of the U.S. population.

Also, in 2000, approximately 50 million people reported one or more disability. The majority of people with limitations are younger than age 65 (30 million working age, 14 million ages 65 and older, and 5 million school age; Freedman, Martin, & Schoeni, 2004). By 2024, 1 in 4 drivers is estimated to be ages 65 or older. A recent study of older adults comparing life expectancy and maximum driving age indicates that the majority of older drivers (ages 70+ years) in the United States live 7–10 years past their ability to drive (Foley, Heimovitz, Guralnik, & Brock, 2002). However, age alone does not determine when a person should retire from driving. More pertinent to occupational therapy practice is the issue of medical conditions that can impair vision, cognition, or motor function. Nevertheless, increasing age is associated with an increased prevalence of medical illness and disability.

The American Occupational Therapy Association (AOTA) has advocated for involvement of occupational therapists in driving and community mobility because occupational therapy practitioners are experts in addressing basic activities of daily living and IADLs. Practitioners are trained to analyze the demands of an activity, assess performance skills, and identify the appropriate match of demands and skills to achieve optimal outcomes. Therapists are trained to assess cognitive, visual, perceptual, psychosocial, and motor aspects of performance and then tailor intervention plans to the individual. Occupational therapists also have the knowledge needed to recognize the effects of medical conditions and the aging process on driving performance. Following a tradition of taking a holistic view of the individual in his or her environment, occupational therapists offer a continuum of services related to community mobility, from evaluation of driving performance to counseling and support for lifestyle changes. These efforts culminate in the ability to maintain independence and quality of life.

The *Physician's Guide* provides background information to medical professionals on the complexity of issues related to older drivers, their growing numbers, and the difficulty determining who is safe to drive. After age 70, the crash rate per mile driven rises steadily, as does the fatality rate, probably due to an increase in frailty and a higher rate of crashes involving left turns, which leave drivers more vulnerable to injury.

Self-regulation by older drivers may be helpful in keeping this group at the lowest risk of crashes per year than any other age group. However, it may not be enough for those with medical impairments. Decline may be slow and unnoticeable to an older adult until he or she is involved in a crash. Also, drivers with dementia may lack the insight and cognitive ability to realize that they are unsafe on the road.

## Screening and Assessment

The Physician's Plan for Older Drivers' Safety (PPODS) provides a flow chart that physicians can follow to determine if a person is at risk for medically impaired driving (see Wang et al., 2003, p. 19). Occupational therapists can be instrumental in the evaluation of many of the steps described in PPODS. The initial screening can take

place in the physician's office, in an occupational therapy clinic, or with any member of the health care team. The occupational therapist may be the one who, along with the client, reviews mobility needs. How does the client typically interact with the community? If the client's car is out of service, how would he or she find alternate transportation? The answers to this question provide clues into cognitive functioning: insight, problem-solving, and judgment. Once discharged from therapy, will this method still be reasonable? This is an excellent time to introduce alternative transportation, even if not needed now. Ideally, driving retirement and alternative transportation should be introduced before a client can no longer drive. In this way the frail older adult or caregiver can start the planning process and be better prepared for retirement when the time comes.

### "Red Flags"

The initial screening includes alertness to "red flags," or any medical condition, medication, or symptom that may impair driving skills, either through acute effects or chronic functional deficits (Wang et al., 2003, p. 28). Red flags are divided into six areas:

1. *Acute events.* These include but are not limited to surgery, hospitalization, traumatic brain injury (TBI), stroke, myocardial infarction, or delirium from any cause. Although driving is sometimes discussed pre-discharge, in a survey of 290 stroke survivors who were interviewed 3 to 6 months after their stroke, fewer than 35 percent reported receiving advice about driving from their physicians, and only 13 percent reported receiving any type of driving evaluation (Fisk, Owsley, & Pulley, 1997). Clearly there is a need to discuss driving and have a more involved role from health professionals.
2. *Client or family member concerns.* Often an adult child may broach the issue, inquiring "Is Dad safe to drive?" or stating "I won't let my kids ride with Mother." An individual may say that he or she is no longer comfortable driving or that the activity is overwhelming or tiring. Recent crashes, near-misses, becoming lost, and confusion all deserve further inquiry or investigation. As part of an occupational therapy treatment plan or solely as a resource to the physician, practitioners can address community mobility issues such as limiting risk exposure (e.g., driving non-peak hours) or considering alternative transportation. Many self-assessment forms are available (see "Resources" and Wang et al., 2003, p. 201). Although limitations may exist with such tools, especially for clients with cognitive impairment who lack insight, using a comprehensive approach can help initiate a conversation about driving.
3. *Chronic medical conditions.* The prevalence of visual deficits caused by cataracts, diabetes, glaucoma, and macular degeneration increases with age and may go undiagnosed. Progressive neurological diseases, including dementia, multiple sclerosis, and Parkinson's disease, will eventually affect functional abilities such as driving. People diagnosed with these conditions may be safe to drive initially, but as a disease progresses, they may need assessment or recommendations for alternate transportation. For example, a client with multiple sclerosis who is having difficulty moving his or her foot from the accelerator to the brake should be referred for a driving evaluation, which would include appropriate adaptive devices. The specialized training of the driver rehabilitation specialist is essential when making recommendations for adaptive equipment, such as hand controls for acceleration and brake. The specialists address both the client's current and future needs. Limitations to high-risk conditions, such as mandating daylight-only or low-traffic driving, may be instituted. A transportation plan for the future should be discussed.
4. *Medical conditions with unpredictable or episodic events.* Some states have waiting periods, such as 6–12 months, before a person can

return to driving from events such as seizures, transient ischemic attack, angina, hypoglycemia, dizziness, and syncope. It is important for occupational therapy practitioners to know their state's regulations. Information about driving and seizures can be obtained by contacting the state licensing agency (contact information is listed in the *Physician's Guide* by state (see pp. 79–146) or can be obtained from the American Association of Motor Vehicle Administrators (see [www.aamva.org](http://www.aamva.org); search “medical advisory board” for pdf summary). If a client presents with an issue, the physician should be made aware of the incident and of the client's current driving status. The client should refrain from driving until his or her condition is stabilized and the primary care physician or subspecialist is comfortable with the resumption of driving privileges. In these situations, occupational therapy generalists or specialists may be called on to educate clients and families as to the importance of complying with driving restrictions and to provide resources and education on appropriate transportation alternatives.

5. *Medications.* Many medications have side effects that impair driving. In addition, interactions among prescription medications, over-the-counter (OTC) medications, alcohol, and even herbal remedies can influence driving safety. Conversely, not taking medications as prescribed can negatively affect driving (e.g., insulin for diabetes). Education and accurate information about the client's medications is key (see Wang et al., 2003, pp. 165–169). Occupational therapists can educate clients about the importance of carrying an updated list of all medications (including OTC drugs, vitamins, and herbal remedies) for interpretation by a physician or pharmacist. Occupational therapists should educate clients about the effects that medications may have on driving. It may be appropriate for therapists to help establish compensatory strategies for medication management such as written checklists or a checks-and-balances system if the client is not reliably self-medicating.

6. *Review of body systems.* Driving is a complex task that requires the integration of vision, cognition, and motor function. Any impairment in these areas such as dizziness, blackouts, restricted joint range of motion, or muscle weakness can affect safe mobility and requires further investigation.

In the world of driving and community mobility, there is a search for an off-the-road screening test that is accurate, simple, and provides a quick clinical assessment that will determine if a person is safe to continue driving. **Unfortunately, this tool does not yet exist.** However, screening can assist the physician and rehabilitation team in deciding who may benefit from remediation or training about driving risks and those who should be referred for an in-depth driver evaluation. Identification and treatment of reversible causes of functional decline (e.g., cataracts, sedating medications, muscle weakness) are another important outcome of driver screening and evaluation.

## ADReS

Screening is aimed at the three key functions for safe driving: (1) vision, (2) cognition, and (3) motor function. (However, screening is never a substitute for a more formal driving evaluation performed by a driver rehabilitation specialist.) The AMA's Assessment of Driving-Related Skills (ADReS) consists of tests, portions of which are already used in many occupational therapy settings, that indirectly assess the key areas of function that are necessary for safe driving (see Wang et al., 2003, pp. 34–41). However, ADReS does not predict crash risk, although preliminary research has documented associations with important driving outcomes such as at-fault crashes and some components of the instrument (e.g., trailmaking, rapid pace walk, head/neck flexibility). Also, computer-based versions of

## Interview Checklist

### Community Mobility

- How much do you drive?
- Do you usually have passengers?
- Do you have any problems when you drive? (e.g., day and night vision, ease of operating steering wheel and foot pedals, confusion, and delayed reaction to traffic signs and situation).
- Do you ever get lost while driving?
- Have you gotten any tickets in the past 2 years?
- Have you had any near-misses or crashes in the past 2 years?
- Has anyone (family or friends) expressed concern about your driving ability?

### Getting There

- Are people available to provide rides at the times required?
- To what extent are family or friends able or willing to provide rides?
- Do people provide the rides willingly, or do they resent having to adjust their schedules?
- Is there something the older adult can “trade” for a ride (making dinner, taking the driver to lunch, paying for gas)?

### Maintaining Driving

- Get regular eye exams with a vision specialist.
- Check with doctor or pharmacist about the effects of my medications on driving ability (watch for interaction with alcohol).
- Stay informed about changes in driving and highway regulations.

### In-vehicle

- Able to enter and exit vehicle safely; storing mobility aid as needed.
  - o “Handy bar” or equivalent to provide added leverage entering and exiting vehicle
  - o Leg lifter to assist with positioning of lower extremity
  - o Key holder to unlock vehicle and start ignition
- Sitting position
  - o Distance between chest and steering wheel 10–12"
  - o Line of sight above steering wheel minimum of 3" (firm cushion may be needed under or behind driver)
- Able to access and use safety belt at all times (across body, not under driver's arm or behind driver's back)
  - o Safety belt extension for easier access (available from car dealers)
  - o Loop on safety belt so easier to reach with right hand and pull across body
  - o Shoulder cushion so safety belt is more comfortable and used more frequently
- Adequate neck mobility for checking blindspots over right and left shoulder
  - o Additional mirrors either inside mirror (panoramic or lane changer mirrors)
  - o Blindspot mirrors attached to outside mirrors (driver and passenger sides)

several of these tests have been validated, which will promote standardization and operational feasibility.

### *Vision*

Ninety to 95 percent of driving-related inputs are obtained through the visual system. Although many aspects of vision are involved in safe driving, visual acuity and visual fields are easily assessed and frequently tested by state departments of motor vehicle services. Each state has visual acuity requirements for driving, generally requiring a minimum acuity of 20/40 in one eye before referral to an ophthalmologist (see Wang et al., 2003, pp. 79–146).

Acuity declines as part of the aging process. However, there is no consensus as to the rate of decline. Acuity impairment also can result from disease states that are more common with aging, such as cataracts, macular degeneration, and glaucoma. The ADReS screens for visual acuity (see Wang et al., 2003, p. 34), using the Snellen chart (available from Prevent Blindness America, 1-800-331-2020) mounted on a wall 20 feet from the client.

Some states also have peripheral-vision requirements. Following stroke or TBI, a client may have a loss of peripheral vision or field cut, either a complete homonymous hemianopsia or a partial cut. A loss of peripheral vision may cause an individual to miss important information in the driving environment, such as traffic signs, pedestrians, or other vehicles. Visual field deficits are measured in the ADReS battery by confrontation (Wang et al., 2003, p. 35). More specific fields can be obtained by some sophisticated computer assessment systems.

### *Cognition*

Age is often associated with certain types of cognitive decline such as dementia or delirium. Medications also can have a large impact on cognition. Skills needed for the driving task include memory (working and crystallized), visual perception, selected and divided attention, and executive skills.

- Using *memory*, drivers must remember how to operate a vehicle, what their destination is, how to get there, and what traffic signs or signals mean. Also, drivers must remember certain information as they are driving and process other information simultaneously.
- *Visual perception*, visual processing, and visuospatial skills are needed for the driver to perceive and organize the visual input from the driving environment (e.g., recognizing that a stop sign, although partially covered by a tree branch, is still a stop sign).
- Many crashes are caused by a lack of *attention* by the driver (e.g., talking on a cell phone, reading a map, drinking coffee). *Selective attention* is the ability to decide what is the most important information in the driving environment (e.g., attending to construction workers on the road and not a superfluous detail such as the progress of their project). *Divided attention* is needed to focus on multiple driving stimuli at the same time (e.g., the color of the traffic light, the pedestrian stepping off the curb, and the car behind who is tailgating). Divided attention, more than selective, may decline with age. Processing of information may slow with age.
- *Executive skills* allow the driver to analyze the stimuli and devise the appropriate driving decision (e.g., the driver must recall that a tractor trailer is following, knowing that the truck cannot stop as quickly as a car; the traffic light is turning yellow, and the driver needs to decide whether to stop or go through the intersection). In addition, attention, sequencing (e.g., following directions or a map), and psychomotor speed often fall under the rubric of executive function. These skills have been noted to decline with aging and especially dementia. Older driver crashes most commonly occur in complex situations, such as left turns or who has right of way (AARP, 2005, p. 11). The ADReS screens

cognition through the use of Trail-Making Test (Part B) and the Freund Clock Drawing Test (see Wang et al., 2003, p. 36).

### *Motor Function*

Aging may involve a decline in muscle strength, endurance, flexibility, and joint stability. Arthritis and other musculoskeletal problems that are common in elderly people can affect safe driving. Decreased sensation and neuropathies can affect independent driving. The ADReS screens motor function using the rapid pace walk and the assessments of active range of motion and strength (see Wang et al., 2003, p. 37). A wide range of adaptive driving equipment is available and most successful if vision and cognition are intact.

## **Occupational Therapy Generalist and Driver Rehabilitation Specialist Roles**

Just as driving is a continuum of skills, abilities, and actions, so is driver rehabilitation. As such, neither occupational therapy generalists nor specialists should work in isolation from one another. Occupational therapy generalists are knowledgeable about driving as an IADL and understand that community mobility and driving touch all areas of occupation, including education, work, play, leisure, and social participation. Occupational therapy driver rehabilitation specialists are knowledgeable about how impairment of vision, cognition, and motor function can affect driving. Specialists are educated in the wide array of adaptive equipment from steering devices to advanced driving systems and may have programs that address the needs of individuals with low vision as well as those of new or teenage drivers. Specialists not only evaluate for safe and independent driving but also can assist clients through training. In addition, specialists must work closely with physicians and subspecialists, as they may identify previously undetected disease states (e.g., visual impairment that leads to the diagnosis of cataracts).

Generalists need to be knowledgeable about area driver rehabilitation programs, as these can vary in professional training and scope of service, to be in a better position to judge when local services are appropriate or when it is necessary that a person travel for specific services that would better meet his or her needs. Some programs are staffed solely with occupational therapy driver rehabilitation specialists, commonly through a rehabilitation hospital or private business. Others operate in conjunction with a driving school that also educates novice drivers without impairments. Some programs are a combination, in which the occupational therapist performs the clinical portion and a driving instructor (with or without an occupational therapist in the vehicle) evaluates the client behind the wheel.

Some questions to ask about programs include

1. What is the program's background, and who are its primary customers?
2. What is the program's experience working with clients with cognitive or visual-perceptual deficits?
3. What is the extent of adaptive equipment available, and does that include an accessible van?
4. Does the program offer refresher skills for elderly people in preparation for state road tests?
5. Does the program offer information or training in the use of transportation alternatives?

Occupational therapists focus on driving and community mobility along a broad continuum when addressing clients with medical conditions. Clients need to be "triaged" as to what is appropriate for their needs and level of function. In addition, occupational therapists should optimize mobility and reduce the risk that some drivers may cease driving too soon.

In the acute phase, families and clients may require clear recommendations for temporary cessation as well as resources for transportation alternatives. Other clients are faced with the question of whether they can or should drive. It may be apparent that a client with paraplegia needs adaptive equipment to drive and should be referred to an occupational therapy driver rehabilitation specialist, whereas in situations with other clients, the needs may be less clear. Driving and community mobility needs be addressed consistently as an IADL when working with clients with medical conditions.

The role of occupational therapy generalists is to work with physicians in the provision of education and referral information about individualized driving risk related to vision, cognition, and motor function. Red flags should be noted, and the potential risk for driving should be clearly communicated. Physicians also should be made aware of the options regarding (1) approval for the person to drive, (2) recommendation for an in-depth driver evaluation, or (3) recommendation for driving retirement.

Therapists may offer education regarding risk, access to alternative transportation, and the use of readily available devices to assist with positioning or ingress–egress from the vehicle. A plethora of information is available on older driver risks as well as how to prolong safe driving (see AAA, AARP, and NHTSA in the “Resources”). Handouts about specific diagnoses and potential effects on driving can be given to clients. Designing with a client a plan for meeting his or her specific transportation needs (necessary and leisure activities) now and in the future will be important. Working with the client to access alternative transportation, including “trial runs” to get to a desired location, will be helpful. Are family or friends able or willing to provide rides? Is there something the older adult can “trade” for a ride (e.g., making dinner, taking the driver to lunch, paying for gas) to make him or her feel like less of a burden? Referral to a social worker or gerontological care manager also may be an important step in the counseling process for driving cessation and mobilizing alternate transportation options. An increase in depression and isolation is often a consequence connected with driving reduction or cessation (Ragland, Satariano, & MacLeod, 2005, pp. 399–403). Easter Seals (see “Resources”) has a Caregiver Transportation Toolkit and Senior Transportation Options Template, both which are useful for family and client education.

It is important to know commonly available equipment to assist clients with entering and exiting a vehicle as well as storing a wheelchair or ambulation device (provide a list of resources where clients can obtain these aids). CarFit, a collaborative project among AOTA, AAA, AARP and the American Society on Aging (see [www.senior-drivers.org/pdf/carfit.pdf](http://www.senior-drivers.org/pdf/carfit.pdf)), provides a good starting point for simple adaptive devices. It is proper for the occupational therapy generalist with knowledge of commercially available “automotive aids” to help a client choose applicable aids. Some devices the client may use either as a driver or passenger. For a wide variety of clients, a “handy bar,” which is placed in the door latch so a person can push down while moving from sit to stand, may be the extra leverage needed to get in and out of a vehicle safely. A leg lifter can assist the driver or passenger to safely bring an immobile or weak leg into the vehicle. Straps are available or can be fabricated that assist in closing the door. Firm cushions under or behind the client will allow better visibility over the steering wheel (goal of 3 inches; per CarFit) for those of short stature. For starting the vehicle, a variety of key holder configurations exist. Clients with limited neck or trunk rotation may require extra mirrors to be mounted either in the vehicle or on the side mirrors to compensate for their decreased range of motion.

Note that adaptive equipment always requires a thorough evaluation and prescription by a driving rehabilitation specialist. Training is necessary for equipment that directly affects vehicle control. This includes but is not limited to steering devices, hand-controlled gas

or brake, left accelerator pedals, and modification to the gas or brake pedals with extensions or blocks.

### *Behind the Wheel*

Special training is necessary for occupational therapists to independently perform behind-the-wheel evaluations. However, teaming with a driving school can separate the tasks of controlling the vehicle and simultaneously assessing the client. Many driver rehabilitation programs work with a commercial driving instructor in the front seat and the occupational therapist in the back seat. The occupational therapist assesses not only the physical ability to maneuver the vehicle but also higher level executive skills such as divided attention, problem-solving, and judgment. Is the client able to integrate with traffic? Is he or she aware of other vehicles and the impact that his or her driving has on others? Cost may be a barrier to driving evaluations. Some insurance carriers will provide reimbursement, but many programs require out-of-pocket payment, which may vary from less than \$100 to \$450.

A comprehensive occupational therapy driver evaluation assesses all aspects of the driving task. Due to the nature of the evaluation, it is generally 2–3 hours of one-on-one time with the occupational therapy professional. Although variations exist among programs, all quality evaluations include assessments of vision, cognition, and motor function. In addition, a medical, driving, and social history are included. It is important for the evaluator to understand the type of driving the client plans. Does he or she already self-limit to driving during daylight or local roads, or does he or she drive to reach a job or volunteer work? Is he or she the primary or only driver in the home? What alternative transportation if any has been used in the past?

After the clinical portion, the behind-the-wheel evaluation takes place and varies by setting. Some programs contract with a driving school, using a behind-the-wheel instructor to handle the vehicle while an occupational therapist sits in the back performing the observation along a specific evaluation route. Other programs have occupational therapy professionals who also are state-certified driving instructors who perform the behind-the-wheel component. In either case, specialized training is required. The evaluation needs to address not only the motoring part of driving but also problem-solving, judgment, and an ability to integrate with traffic. State regulations vary on the requirements for the person performing behind-the-wheel evaluation and subsequent training.

The final portion of the evaluation is the post-evaluation discussion. Ideally, family or caregivers should be present for support as well as confirmation of what was discussed. Strengths, weaknesses, and recommendations are reviewed. Assisting the client with a plan for transportation is important whether it is with the family or community alternatives. A referral to an occupational therapy generalist often is appropriate for follow-up education, identification of appropriate transportation alternatives, and strategies for accessing the community.

### *Counseling and Education*

Regardless of the outcome of a driver evaluation, counseling for community mobility in the future is appropriate. For some clients, driving retirement may be years away. However, by learning how to access the community resources, a gradual transition can be made. Initially, the client may seldom use alternative transportation. However, the more a client uses a new form of transportation and becomes familiar with community mobility options while still driving, the easier the transition will be. By increasing older drivers’ awareness of risk factors and strengthening their skills, occupational therapists can help prolong their ability to drive safely as well as improve or maintain their quality of life.

## Driving Cessation

Those clients who are facing recommendations for driving retirement or immediate driving cessation following an evaluation need support and understanding. It is very difficult to “hang up the keys.” Reactions can range from anger and denial to complete compliance. Whatever the situation, the client needs support. Depression and social isolation increases significantly following driving cessation. Resources for in-home services as well as services to meet community mobility requirements need to be included in the occupational therapy recommendations.

The client may not be ready to assimilate this information immediately following an evaluation. Driving evaluation programs may refer clients to other occupational therapy programs where intervention begins with follow-up to the driving evaluation and transitioning to other forms of community mobility. Clients with dementia may require occupational therapy services to assist family and client with strategies to ensure that they not drive, to provide support for the stress that not driving may cause, and to refer to community resources such as the local Alzheimer’s Association chapter ([www.alz.org/apps/findus.asp](http://www.alz.org/apps/findus.asp)) or services through local agencies on aging. Occupational therapy services may include community outings to work with clients on how to access transportation in their local area.

Occupational therapy generalists need to know the state laws and regulations for driving. States vary widely regarding who is required to report an unsafe driver as well as who is permitted to report. The availability of anonymity and immunity for reporting also varies. State medical requirements differ widely (e.g., how long a person must remain seizure-free to resume driving). Although many states do not directly address who can perform a “driver evaluation” (in the vehicle), generally regulations exist for who is able to provide “driver instruction.” All health professionals should be aware of their specific reporting requirements. It is viewed as ethical to report unsafe drivers that are recalcitrant to driving cessation when they lack insight or do not follow recommendations. However, discussion with legal counsel and other members of the medical community to develop a policy on how to respond in these difficult situations is recommended.

## Advocacy

Few communities have what is considered to be ideal public transportation for those who do not drive, for older adults or those with disabilities. For programs or therapists interested in opportunities for advocacy, driving and community mobility offer a wealth of opportunity. Occupational therapists need to advocate for their clients for further improvements as well as help clients access what is available. If driving alternatives are not being used, they will not be funded.

A checklist for occupational therapy generalists is included on page 8. The occupational therapist should be familiar with individual state driving and reporting requirements. Also, the therapist should be aware of the offerings of area specialized driver rehabilitation programs and establish a referral pathway for clients. As educational resources are readily available through organizations such as AOTA, NHTSA, ADED (Association for Driver Rehabilitation Specialists), AAA, and AARP know what is available to your specific area of occupational therapy practice. Finally, organizational policy and procedures for addressing driver issues should be established and implemented on a continuing basis. Ignoring driving risk or mobility needs does a disservice to occupational therapy clients. ■

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## Driving and Community Mobility Resources

### Tools of Interest

- At the Crossroads: A Guide to Alzheimers, Dementia and Driving  
[www.thehartford.com/alzheimers](http://www.thehartford.com/alzheimers)  
Developed by the Hartford Financial Services Group, the MIT Age Lab, and Connecticut Community Care to help individuals and caregivers determine when to stop driving.
- Braille Institute  
[www.brailleinstitute.org/Services/PacketsbyMail.htm](http://www.brailleinstitute.org/Services/PacketsbyMail.htm)  
Offering vision simulator cards free-of-charge.
- Compendium of Law Enforcement Older Driver Programs  
[www.aamva.org/drivers/drv\\_AgingDrivers.asp](http://www.aamva.org/drivers/drv_AgingDrivers.asp)  
Compiled by the National Highway and Traffic Administration compiled in 2004, a listing by state of each older driver safety program sponsored by law enforcement.
- RoadWise Review  
[www.aaapublicaffairs.com](http://www.aaapublicaffairs.com)  
A computer-based screening tool developed by AAA and notable transportation researchers to allows seniors to measure in the privacy of their own home the 8 functional abilities most correlated to safe driving.
- Driving Decisions Workbook  
[www.aota.org/olderdriver/docs/AssessUMI.pdf](http://www.aota.org/olderdriver/docs/AssessUMI.pdf)  
A tested, self-administered driving assessment tool developed by the University of Michigan.
- We Need to Talk  
[www.thehartford.com/talkwitholderdrivers](http://www.thehartford.com/talkwitholderdrivers)  
Developed by the Hartford Financial Services Group and the MIT AgeLab to help families initiate productive and caring conversations with older adults about driving safety. Based on research with drivers older than age 50; a great tool in driving discussion sessions or to present to families and loved ones.

## Related Internet Sites

### National Highway Traffic Safety Administration (NHTSA)

[www.nhtsa.gov](http://www.nhtsa.gov)

Information for consumers and professionals on older driver safety, including educational materials about driving with particular medical conditions or diseases; health professionals working with older adult drivers; and an online library of research studies, references, and policy statements relating to NHTSA's older-driver safety initiative.

### National Association of Area Agencies on Aging

[www.n4a.org/older\\_driver\\_safety.cfm](http://www.n4a.org/older_driver_safety.cfm)

Information for professionals about n4a's Older Driver Safety Project, which is funded by the National Highway Traffic Safety Administration and includes a brochure about community-based approaches to promoting older driver safety.

### AAA Foundation for Traffic Safety

[www.seniordrivers.org](http://www.seniordrivers.org)

Tips to keep an older driver's driving skills sharp, including video clips covering some of the trickiest situations drivers might encounter and also information on supplemental transportation programs for seniors as well as current research on older driver safety.

### AAA (Motor Clubs)

[www.aaapublicaffairs.com](http://www.aaapublicaffairs.com)

Provides an overview of the AAA priority issue, Lifelong Safe Mobility, and includes educational programs and resources for senior drivers, as well as state legislation and AAA Roadwise Review (see above).

### AARP

[www.aarp.org/life/drive](http://www.aarp.org/life/drive)

Consumer information about the nation's largest driver refresher course for older adults, as well as quick, informal tests that individuals can take to begin assessing their fitness to drive safely.

### Administration on Aging

[www.aoa.gov/prof/notes/notes\\_older\\_drivers.asp](http://www.aoa.gov/prof/notes/notes_older_drivers.asp)

Links to articles for professionals regarding older driver health and safety, including information on disability, low-vision, transportation and mobility, and Alzheimer's disease and related dementia.

### American Occupational Therapy Association

[www.aota.org/olderdriver](http://www.aota.org/olderdriver)

Materials for professionals and consumers about driver evaluation and retraining and the role of occupational therapy driver rehabilitation specialists in keeping individuals connected to their communities; also has the nation's most comprehensive and searchable national database of driver rehabilitation specialists.

### American Medical Association (AMA)

[www.ama-assn.org/ama/pub/category/10791.html](http://www.ama-assn.org/ama/pub/category/10791.html)

Electronic access to the Physician's Guide to Assessing and Counseling Older Drivers, a publication developed by the AMA in cooperation with NHTSA.

### Beverly Foundation

[www.beverlyfoundation.org](http://www.beverlyfoundation.org)

Resource STORe highlights reports, articles, brochures, and pamphlets for public, private, and nonprofit organizations as well as professionals in health, aging and transportation, and communities across the nation. Covers mobility and senior mobility, traditional transportation, supplemental transportation, and off-the-road care and services.

### Community Transportation Association of America (CTAA)

[www.ctaa.org](http://www.ctaa.org)

Provides an overview of technical assistance programs in transit design and solutions and Transportation Lending service; Information Station connects viewers with community transportation news, resources, and ideas, including transportation options; provides categorical guides, a glossary of terms, online publications, links to related sites, and a powerful search engine.

### Easter Seals Project ACTION

[www.projectaction.easterseals.com](http://www.projectaction.easterseals.com)

Addresses national transit accessibility issues through technical assistance, resource development, and training; bus familiarization training funded by the Federal Transit Administration consists of 2 days of instruction for travel trainers, teachers, job coaches, and bus operators; Project ACTION Clearinghouse offers more than 70 print, video, audio, and multimedia products, free of charge, containing information on accessible transportation.

### ITNAmerica™

[www.itnamerica.org](http://www.itnamerica.org)

Describes a model transportation program using automobiles and both paid and volunteer drivers to provide dignified service 24 hours a day, 7 days a week; describes how ITN is sustained entirely by fares from the people who use the service and voluntary local community support with no public subsidy for capital or operating expense; program participants become members of the organization and pay for their rides from personal transportation accounts.

## Overview of Core Older Driver and Community Mobility Programs

**DriveWell Toolkit**—The toolkit provides comprehensive information for planning, promoting, and presenting public information events on older driver safety and community mobility. Included is up-to-date background information on the issue and a 20-minute video and presenter's guide designed to trigger conversation about the topics. The materials are designed for maximum flexibility so that they can be incorporated into existing community information programs of varying lengths of time. Audiences for the information include older drivers, family members, and social services and aging services providers. Training lasts about 5 hours, and participants receive a free copy of the toolkit. Those trained are expected to do educational programs in their community using toolkit materials. Visit [www.asaging.org/drivewell](http://www.asaging.org/drivewell).

**CarFit**—The program is designed to give older drivers a quick but comprehensive check of how well they fit in their vehicle. A trained professional or volunteer goes over a 12-point checklist with the older driver. The training is 2 days—the first day is classroom training, and the second day includes staging a "live" CarFit event with older drivers. Visit [www.asaging.org/carfit](http://www.asaging.org/carfit).

**NHTSA Law Enforcement Module**—The 37-hour course, which should be taught by law enforcement professionals to law enforcement professionals, includes video, handouts, a simulated traffic stop, and a group exercise to engage participants in this important topic. [Q: link?]

**Roadwise Review**—The CD-ROM-based program, which takes 45 minutes to 1 hour to complete, allows older drivers to check their driving abilities conveniently and confidentially, enabling them to check visual, mental, and physical responses that may affect their driving. The program also identifies steps to reduce their risk behind the wheel and to speak with their doctor about how to maintain their fitness to drive. Visit [www.aaapublicaffairs.com](http://www.aaapublicaffairs.com).

**AMA Physician Guidelines on Older Drivers**—A 3-hour presentation by Thomas Meuser, PhD, and David Carr, MD, Washington University School of Medicine, provides physicians and other health care professionals with the tools they need to assess and counsel older patients on medical fitness-to-drive. Attendees receive continuing medical education credits for attending this training. [Q: link?]



# Considerations for Generalist Occupational Therapists in Driving

## ■ Know your individual state driving and reporting requirements (e.g., AMA guide).

- Are there visual-acuity and peripheral-vision minimums?
- Is there mandatory reporting following a medical incident such as stroke?
- Who is permitted or required to report potentially unsafe drivers in your state?
  - Can a family member or health care provider report, or only a physician?
  - What is the procedure for reporting?
  - Is reporting anonymous?
  - Is there immunity?

## ■ Know area driver rehabilitation programs and what they offer.

- What are the staff's background and training?
  - Occupational therapist?
  - Driving instructor?
  - Combination or other?
- Who is the clientele served?
  - New drivers?
  - People with low vision?
  - Elderly people?
  - Wheelchair users?
- Does the staff have experience working with those with cognitive deficits?
- What is the extent of adaptive equipment available (accessible van)?
- Does the program offer refresher skills for preparation of state road tests?

## ■ Establish referral pathway.

- Contact and visit area driver rehabilitation programs.
- Request inservice for your staff from a driver rehabilitation specialist (AOTA presentation is available).
- Define occupational therapy generalist role in screening and referring (triaging of population).
  - Who is appropriate to refer?
  - When should you refer (i.e., how soon after CVA or injury)?
  - Use the AMA's ADReS to establish red flags.

## ■ Develop educational resources for your clients

- Advise clients on older driver issues (use resources from, e.g., AARP, AMA).
- Put together handouts based on specific diagnoses (see, e.g., ADED, NHTSA).
- Occupational therapy intervention
  - Know what alternative transportation is available in client's area.
  - Design with the client a plan for meeting his or her specific transportation needs now and in the future (necessary and leisure activities).
    - To what extent are family or friends able or willing to provide rides?
    - Is there something the older adult can "trade" for a ride (e.g., making dinner, taking the driver to lunch, paying for gas)?
  - Work with client on community mobility, including "trial runs."
  - Know commonly available equipment to assist client with entering and exiting vehicle as well as storage of wheelchair or ambulation device (have resource list of where client can obtain these aids).

## ■ Determine with physicians and other staff the policy and procedures for addressing driver issues at your individual institution.

- Have a plan in place to include community mobility with all clients.
- Delineate the role of the occupational therapy practitioner.



For more information on driving and community mobility, visit [www.aota.org/olderdriver](http://www.aota.org/olderdriver), or email [driverhelp@aota.org](mailto:driverhelp@aota.org).

