

Dementia and Driving: Helping Caregivers Connect Clues and Prepare for Loved Ones' Driving Cessation

Annie C. Harmon, PhD

Assistant Professor, Geriatrics and Nutritional Science
Washington University School of Medicine in St. Louis

SLU Memory Clinic Speakers Series

June 22, 2020

AGENDA

Overview of Driving

Connecting Clues about Driving Safety

Maximizing Driving Safety

Mobility Planning

Strategies for Resistance

Resources

Q & A



The Driving Task: Common, Valued, & Complex

Driving Is Important on Many Levels

Transportation in a vehicle-dependent culture

Independence, autonomy, freedom

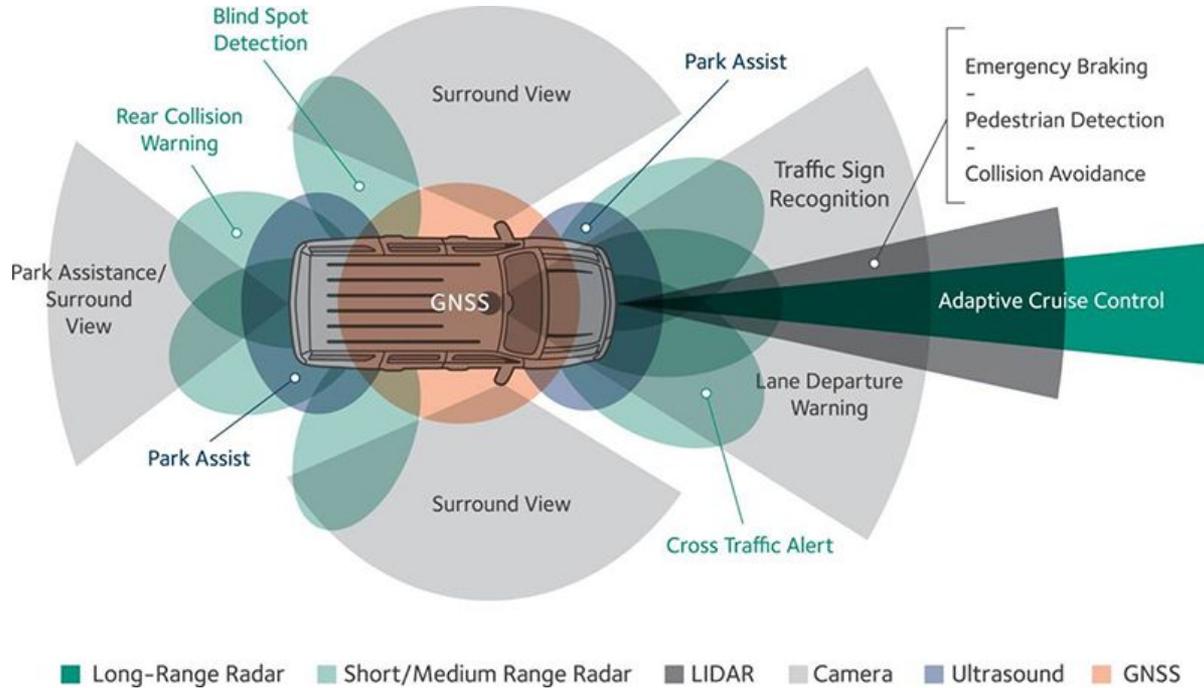
Visible signal of function

Tied to social roles, adulthood, masculinity

(Nearly) Lifelong, daily behavior for many

= threatening to potentially or actually stop

“Ideal” Driver: Autonomous Vehicles



The Complex Cognitive Demands of Driving

A safe driver is one who:

- 1) maintains constant yet shifting attention on the roadway environment
WHILE
- 2) mechanically operating the vehicle to control and adjust speed, lane positioning, and direction
WHILE ALSO
- 3) applying rules of the road (signaling, responding to regulatory signs, situational right of way, speed limit)
BUT ALSO
- 4) remaining aware of route navigation to arrive at desired location.

In spite of:

Conditions: weather, light, vehicle, road maintenance

Road demands: route familiarity, traffic congestion, construction, unpredictable drivers and pedestrians

Distractions: cell phones, passengers, boredom

Emotional regulation: influenced by stress, sleep, nutrition, blood sugar, pain, meds, previous experiences

Required abilities:

Sufficient *sensory input* (primarily visual) to react to changing environmental demands

Maintaining *attention* on sensory input in order to *process, prioritize, and react appropriately* to dynamic on-road environment

Physical strength and flexibility to operate vehicle, as well as sufficient *reaction speed to respond* appropriately to on-road demands

Functional Requirements for Driving

- Vision
 - Contrast Sensitivity
 - Field of view
- Cognition
 - Memory
 - Judgment
 - Decision making
 - Attention
- Musculoskeletal flexibility and strength
 - Turning neck, torso, arms
 - Turning wheel
 - Using pedals
- Vision + Cognition + Motor Control = Reaction Time

Dementia and Driving

- As a progressive brain deteriorating condition, dementia diagnosis signals that **driving cessation is not an if, but a when.**
- May still be safe in early stages, not later (moderate or severe), so start preparing as soon as possible

Additional challenges

- Driving is overlearned; after decades of a practice, a person with limited higher-level cognitive function may still be able to mechanically operate a vehicle (open door, start engine, turn wheel, press pedals)
- Forgetting or disbelieving diagnosis, recommendations, agreements
- Emotional reactions due to frustration, confusion, and restricted autonomy

Ways to Assess, Maintain, and Improve Driving Safety

Connecting Clues: Minor On-Road Errors



Repeatedly not signaling for turns or lane changes



Drifting within the lane



Noticing stop signs or signal color at the last minute



Following too closely to other vehicles



Driving at speeds that are inconsistent with posted speed limits



Difficulty turning to check over shoulder for blind spots



Difficulty navigating turns



Parking inappropriately

Connecting the Clues: Critical On-Road Errors



Doesn't observe stop signs or signals



Drifting into another lane



Getting lost in familiar places



Misjudging spacing while completing an unprotected left turn



Not yielding right of way to other traffic



Stopping for no reason



Having difficulty moving feet between the gas and the brake or confusing the two pedals



Near collision with another vehicle, requiring evaluator intervention

Connecting the Clues: Day-to-Day Function

- Vision loss
 - Blurry vision (glaucoma, diabetes)
 - Blind spots or reduced peripheral vision (macular degeneration)
 - Difficulty seeing in low-light conditions (age)
 - Visual distortion/Difficulty with depth perception*
- Gait change (abnormal walking pattern)*
- Falls
- Peripheral neuropathy (loss of sensation in hands and/or feet)

Connecting the Clues: Day-to-Day Function (cont.)

Challenges with sustained attention (TV show, conversation)

Needs Assistance with Instrumental Activities of Daily Living (IADLs):

- Preparing hot meals
- Managing medications
- Handling finances
- Shopping
- Using telephone or remotes

Connecting the Clues: Stage of Dementia*

Clinical Measure of Dementia Severity	No Dementia (CDR=0)	Questionable or Very Mild Dementia (CDR=0.5)	Mild Dementia (CDR=1.0)	Moderate to Severe Dementia (CDR=2.0)
For the Dementia Specialist: Clinical Dementia Rating	No memory loss or inconsistent memory loss Fully oriented Judgment intact Function intact Personal care intact	Consistent slight forgetfulness Slight difficulty with orientation or judgment Slight impairment in community activities or home activities Personal care intact	Memory loss interferes with everyday activities Geographic disorientation Moderate impairment in judgment Mild but definite impairment of community or home activities Needs prompting for personal care	Severe memory loss Severe difficulty with time relationships and judgment No longer independent in activities Only simple chores preserved Needs assistance in personal effects
For the Clinician: Short Blessed Test Mini-Mental Status Exam	1.2 (1.9)* 28.9 (1.3)#	4.8 (5.9)## 23.1 (2.5)@	15.4 (5.2)# 20 (3.9)#	18.5 (5.5)# 16.1 (4.7)#
For the Neuropsychologist:				
Logical Memory	8.8 (2.9)*	4.3 (2.7)+	1.9 (1.7)+	1.5 (2.3)**
Block Design	30.1 (8.6)*	22.2 (9.8)	12.0 (9.6)	3.2 (6.6)++
Digit Symbol	45.6 (11.5)*	31.7 (13.6)	17.0 (13.3)+	8.3 (8.7)++
Trailmaking A	40.9 (20.0)*	70.2 (39.2)+	108.3 (50.5)+	XXX
Benton Copy	9.6 (.88)*	9.1 (1.6)+	7.3 (2.7)+	XXX

Road Test Failure

CDR 0 = 1.6%

CDR .5 = 13.6%

CDR 1 = 33.3%

What to do? Start Talking Now

Green Light

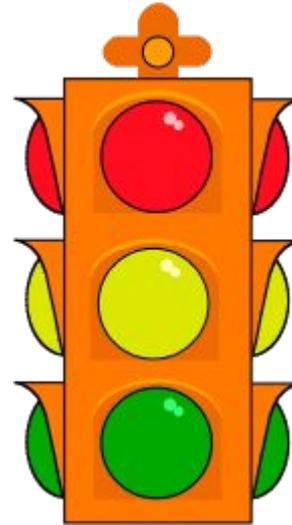
- No red flags
- Monitor at intervals

Yellow Light

- Red flags/co-morbid illnesses
- Decline in traffic skills
- Deficits on IADLs
- Consider referral and caution!

Red Light

- Driving Retirement/Counseling
- Stop!



Maintaining & Improving Driving Safety: Function

Building blocks of function

- Nutrition
- Hydration
- Sleep
- Exercise
- Connection
- Meaningful activities

Barriers to function

- Vision loss (correct if possible with new prescription, surgery, etc.)
- Polypharmacy (reduce unnecessary or impairing medications)
- Depression (recognize and treat)
- Isolation (continue valued interactions)
- Physical pain/stiffness

Maintaining & Improving Driving Safety: Education

Refresher courses

- AAA
- AARP
- National Safety Council (under Defensive Driving)

Practice

- Drive Focus (iPhone & iPad app)

Professional Training and/or Adaptations

- Certified Driving Rehabilitation Specialist (CDRS) \$\$

Preparing for a Nondriving Future

Mobility Planning

Start preparing before transition to nondriver, include driver when possible

- Acknowledge emotional transition from driver to nondriver; others will be asked to support continued mobility
- Priorities: household, medical, social, nature, spiritual, etc.
- Communication: discussing expectations with family or others expected to provide rides and/or other support
- Preparation: Identify and practice nondriving options available in community (search for local transportation options at www.ridesinsight.org)
- Context: Consider how physical environment affects transportation mobility (function/demand fit)

Nondriving Transportation Alternatives

Personal

- Rides from Friends/Family
- Walking

Search for available options
by ZIP code at ridesinsight.org

Public

- Buses
- Light rail/trains
- Specialized transport (e.g., for seniors or people with disabilities)

Private

- Taxis
- Volunteer Programs
- Rideshare (e.g., Uber, Lyft)

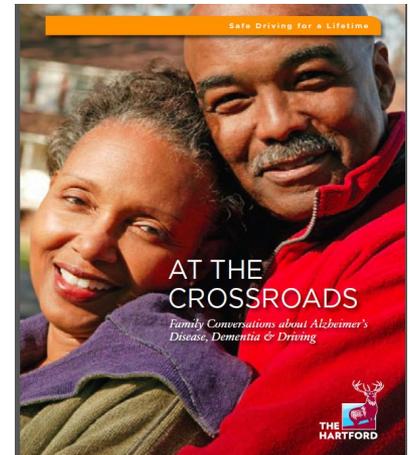
Consider Individual Resources

Personal transportation mobility can be enhanced or inhibited by:

- Functional abilities: physical & cognitive
- Community: walkability, safety, transportation options, services
- Social connections: relationships that provide meaning, emotional support, information, tangible support
- Finances: increases options for paid transportation, delivery, home-based services
- Knowledge/Experience: know/have used local alternative transportation options, have adapting to other limitations (especially mobility)
- Personality: willing to try new things, adaptability to change, outlook
- Choice: Consider voluntary surrender of license at DMV & replace with state ID

Strategies for Resistance

- Focus on medical conditions as the reason to stop driving (e.g. vision too impaired, slowed reaction time)
- Make a contract of when or why person will stop driving (see Hartford “At the Crossroads” guide or Alzheimer’s Association for examples)
- Physician “prescription” for driving retirement
- Discuss financial implications of crash or injury
- Report to state/revoke license



Missouri Reporting Process

The screenshot shows the Missouri Department of Revenue website. The header includes the logo, navigation links (MO.gov, Governor Parson, Find an Agency, Online Services, Search), social media icons, a language selector, and a 'Find a Form' search box. Below the header is a navigation bar with categories: Forms & Manuals, Online Services, Individual Tax, Business Tax, Motor Vehicle, and Driver License. The main content area is titled 'How to Report an Unsafe Driver in Missouri FAQs' and contains a list of frequently asked questions. A sidebar on the right lists various services under the 'Driver License' category.

How to Report an Unsafe Driver in Missouri FAQs

Home » FAQs » Driver License » unsafe

- If I know someone who I believe is no longer able to drive safely, what do I need to do to get the driver retested or evaluated?
- Are there only certain persons who may ask to have a driver retested to see if they are safe to drive?
- What type of information is needed?
- Must I identify myself in order to report an unsafe driver?
- Could I have any liability if I report a driver I think may be unsafe?
- May I report an unsafe driver by telephone rather than filling out the form?

Driver License

- Forms & Manuals
- Frequently Asked Questions
- About Driver License
- Commercial Drivers
- Driver Licensing Checklist
- Driver Guide
- Driver License Fee Chart
- Driver Records
- DWI Information

dor.mo.gov/faq/drivers/unsafe.php

-Submit written and signed form detailing concerns with signature (Form 4319 for general reporting).

-Driver informed their license is suspended until decision is reached, usually required to complete additional testing (clinical and/or on-road) within 30 days

-Good faith reporters are protected by law

Driver Condition Report (Form 4319)

Reset Form Print Form



Please complete the Driver Condition Report if you have personal knowledge about a driver you believe is no longer able to safely operate a motor vehicle.

- You should report only your firsthand knowledge of the driver.
- You should complete the entire form and sign your name on the reverse side.
- After reviewing this report, the Director of Revenue may require the driver to take certain tests such as a medical, vision, or driving test.
- All information contained in this report shall be kept confidential, unless released by a court order.
- A driver condition report must be completed by one of the following: a physician, chiropractor, registered nurse, psychologist, law enforcement personnel, social worker, professional counselor, optometrist, physical or occupational therapist, emergency medical technician, or immediate family of the driver. (Immediate family members consist of spouse, parent, child, grandparent, sibling, grandchild, great grandparent, aunt, uncle, niece, nephew, or great grandchild. In-laws are excluded as immediate family members).

Driver's Personal Information

Please provide all information available for the person being reported.

Name (Last, First, Middle)			Social Security or Driver License Number	
License Plate Number	State of Issuance	Date of Birth (MM/DD/YYYY)	Telephone Number (____) _____	
Address		City	State	Zip Code

Detail Incidents and Conditions

Describe in detail incidents or conditions about this driver. Give specific information such as dates, places, accident reports and all other available information to support the need for re-examination. You should report only information of which you have personal knowledge or physical evidence. Do not report what you have been told or heard.

Driver Behavior

Please select appropriate boxes based on personal knowledge of incident, if applicable. Please give a detailed description of incident. Age alone is not a sufficient reason for retesting.

<input type="checkbox"/> Traffic Violation <input type="checkbox"/> Lack of Attention <input type="checkbox"/> Dangerous Actions <input type="checkbox"/> Poor Driving Skills <input type="checkbox"/> Caused Traffic Accident or Incident	Location
	Date (MM/DD/YYYY) _____ / _____ / _____
	Time _____
	<input type="checkbox"/> Lack of Knowledge of Traffic Laws <input type="checkbox"/> Obstructing Traffic <input type="checkbox"/> Other _____

Medical Conditions

Please select appropriate boxes if the driver being reported has any of the following conditions that would impair his or her ability to safely operate a motor vehicle. Physicians, please complete Form 1528 and attach to this report.

Cognitive Impairments or Psychiatric Disorder (i.e., sees or hears things that are not there, gets lost easily, has problems remembering words for common things, confusion in thought process or judgment) Please explain: _____

Visual Impairment (i.e., frequently runs into objects, cannot see road signs, cannot see objects on the side without turning head). Please explain: _____

Alcohol or Drug Abuse Please explain: _____

Disorders That Impair Consciousness (i.e., seizures, blackouts, sleep disorders) When was the last loss of consciousness? ____/____/____
Please explain: _____

Limited Mobility (i.e., paralysis, problems moving freely) Please explain: _____

Other Conditions or Additional Comments Please explain: _____

Reporter's Personal Information and Signature

Under penalties of perjury, I declare that the above information and any attached supplement is true, complete, and correct. Based on my observation(s) of the above named person and information relayed to me by the individual, I reasonably and in good faith, believe that he or she cannot safely operate a motor vehicle. I understand that any person who intentionally files a false report shall be guilty of a Class A Misdemeanor, and shall be liable for the damages which result.

Full Name (Last, First, Middle)		Relationship to Driver
Address		City
State	Zip Code	Telephone Number (____) _____
Signature		Date (MM/DD/YYYY) ____/____/____



Additional Resources

Alzheimer's Association
(www.alz.org)

alzheimer's association

ABOUT NEWS EVENTS PROFESSIONALS E-NEWS 24/7 HELPLINE 800.272.3900 DONATE

Alzheimer's & Dementia Help & Support Research Get Involved Local Resources Search Q

SAFETY

Dementia and Driving

En Español

Driving requires the ability to react quickly to a variety of circumstances. Because of this, a person living with Alzheimer's will, at some point, be unable to drive. Planning ahead can help ease the transition.

Live Chat

- Having the conversation
- Signs of unsafe driving
- Planning ahead

Watch how four families deal with different issues related to dementia and driving.

1 in 4 adults now 65 will live to 90+

MyMobility Plan

What can you do to stay independent?

Many people make financial plans for retirement, but not everyone plans for other changes that may come with age. This includes changes in your mobility—your ability to get around.

It's not easy to talk about, but as we get older, physical changes can make it harder to get around and do things we want or need to do—like driving, shopping, or doing household chores.

There may be a time when you still need to get around, but can no longer drive.

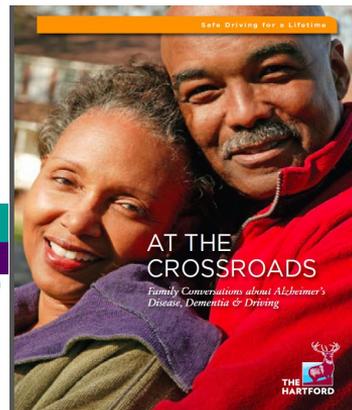
You might not have mobility problems now, but you could in the future. You may even know others who already do—perhaps a parent, relative, friend, or neighbor. While it may not be possible to prevent all of these changes, there are actions you and your loved ones can take today, and as you age, to help keep you safe and independent tomorrow.

- MySelf**
A plan to stay independent
- MyHome**
A plan to stay safe at home
- MyNeighborhood**
A plan to stay mobile in my community

Make a plan today. Stay independent tomorrow.

CDC Centers for Disease Control and Prevention National Center for Injury Prevention and Control

My Mobility Plan
(www.cdc.gov/motorvehiclesafety/older_adult_drivers/mymobility/)



The Hartford
At the Crossroads
Dementia & Driving Toolkit
www.hartford.com

FCA FAMILY CAREGIVER ALLIANCE®
National Center on Caregiving

ABOUT FCA CAREGIVER EDUCATION POLICY & ADVOCACY CAREGIVER CONNECT PRESS CONTACT US

Home

Dementia and Driving

Order this publication
Printer-friendly version

By Family Caregiver Alliance and reviewed by Vicki L. Schmall, Ph.D.

When an individual is diagnosed with dementia, one of the first concerns that families and caregivers face is whether or not that person should drive. A diagnosis of dementia may not mean that a person can no longer drive safely. In the early stages of dementia, some—though not all—individuals may still possess skills necessary for safe driving. Most dementia, however, is progressive, meaning that symptoms such as memory loss, visual-spatial disorientation, and decreased cognitive function will worsen over time. This also means that a person's driving skills will decrease and, eventually, he or she will have to give up driving. Many people associate driving with self-reliance and freedom; the loss of driving privileges is likely to be upsetting. Some individuals, recognizing the risks, will limit or stop driving on their own. Others may be unable to assess their own driving skills and may insist on driving even when it is no longer safe. Families and caregivers may have to intervene when an individual's symptoms pose too great a traffic risk.

Because the progression of dementia varies from person to person, it is difficult to know at what point an individual can no longer drive safely. This fact sheet provides guidelines to help caregivers and persons with dementia decide when and how to limit or stop driving.

Get Involved

- Subscribe to FCA newsletters
- Join an online support group
- Share your caregiver story

Education and Events Calendar

March 2020

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Smart Patients Caregivers Community
In partnership with Family Caregiver Alliance

Family Caregiver Alliance
www.caregiver.com

In Summary

- Driving is not just about transportation
 - intertwines with social connections
 - one's sense of self
 - visible sign of independence
- Driving is a very complex behavior, requiring coordination of vision, cognition, and motor control to react in ever-changing roadway environments
- There are ways to help drivers and their caregivers prepare and plan for nondriving future in order to help mitigate negative experiences and outcomes
 - Start talking early
 - Engage driver in prioritizing
 - Communicate with other stakeholders involved

Questions

Annie C. Harmon

annieharmon@wustl.edu

