

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

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# AGENDA

Overview of Driving

Connecting Clues about Driving Safety

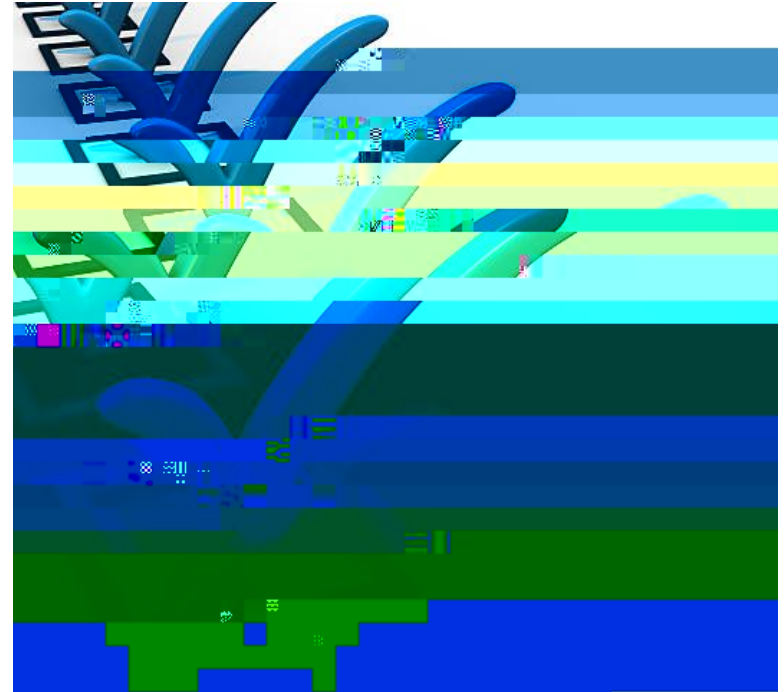
Maximizing Driving Safety

Mobility Planning

Strategies for Resistance

Resources

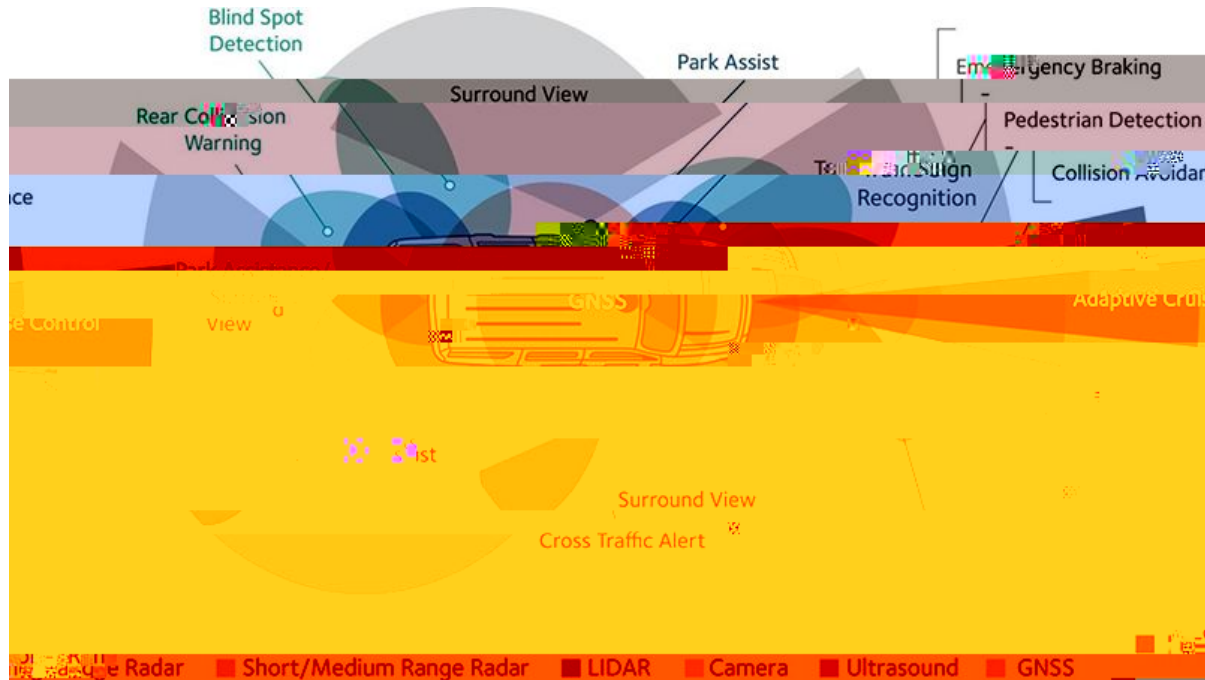
Q & A



# The Driving Task: Common, Valued, & Complex

Driving Is Important on Many Levels

# “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

## **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

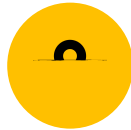


# Ways to Assess, Maintain, and Improve Driving Safety

# Connecting Clues: Minor On-Road Errors



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# Connecting the Clues:



# Critical



# On-Road Errors



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# 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\*

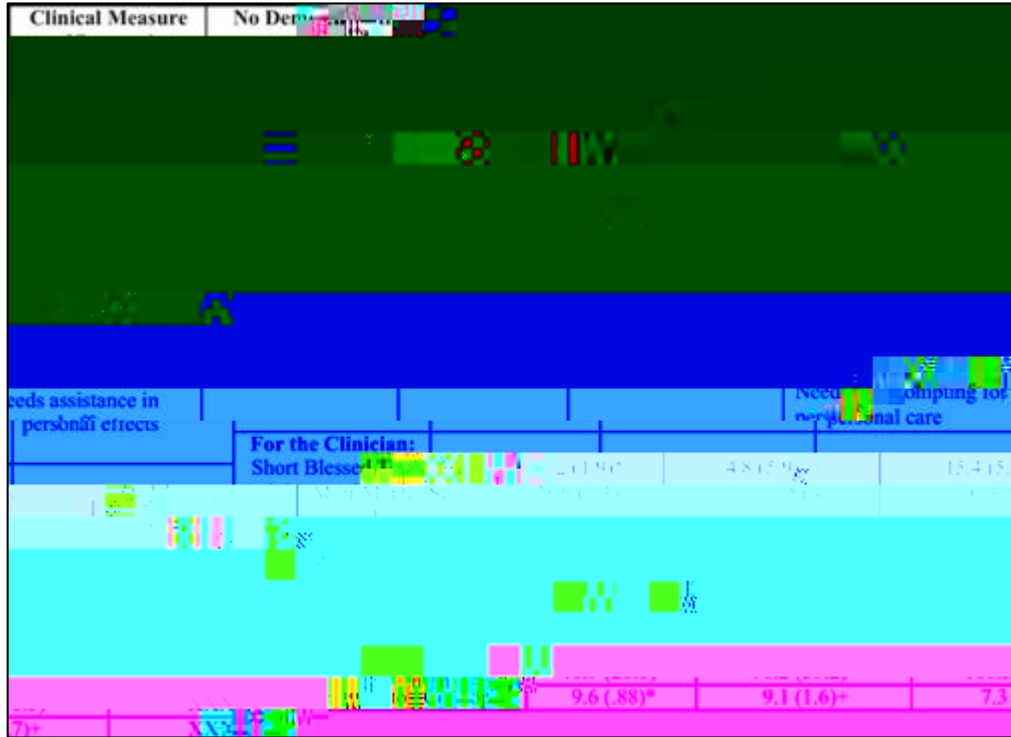
## Gait change (abnormal walking pattern)\*

## Falls

Peripheral neuropathy (loss of sensation in hands and/or feet)

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

# Connecting the Clues: Stage of Dementia\*



## 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: Education

**Refresher courses**

# Preparing for a Nondriving Future

# *Mobility Planning*

# Nondriving Transportation Alternatives

## Personal

Rides from Friends/Family

Walking

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## 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)

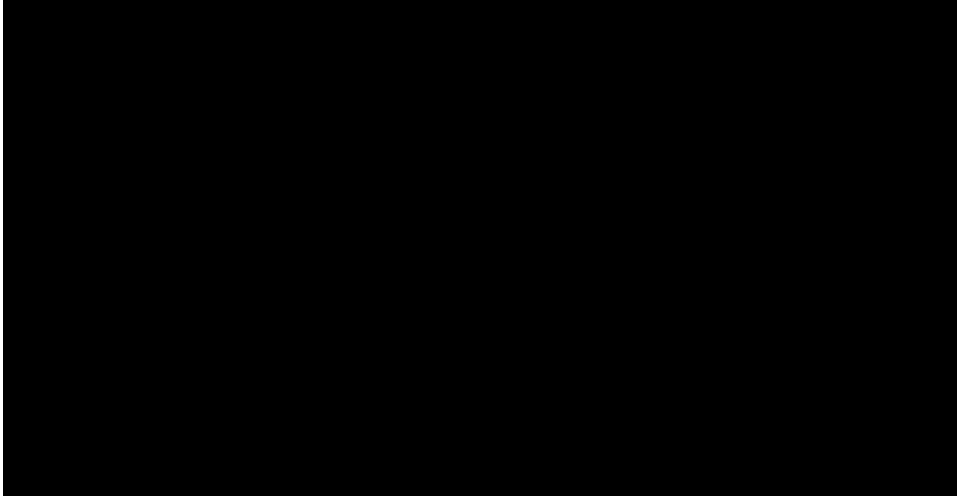
Personality: willing to try new things, adaptability to change, outlook

Choice:

# Strategies for Resistance

Focus on medical conditions as the reason to stop driving (e.g. vision too impaired, slowed reaction time)

# Missouri Reporting Process



- 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





# Additional Resources



# In Summary

Driving is not just about transportation  
intertwines with social connections  
one's sense of self  
visible sign of independence

Questions

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