Safety & Transition
Online Course
June 2018

Occupational Therapy, Driving Rehabilitation, and the Medically at Risk Driver

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Agenda

- *Its about safety & mobility*
  - *Anticipating changes*
  - *Frailty and Fragility vs. Capacity (www.CarFit.org)*
- *Screening and evaluation*
  - *Data driven decisions*
  - *Address problems with solutions*
- *The role of occupational therapy*
  - *Driving as an IADL*
  - *Driving rehabilitation*
- *Interventions*
  - *Drivers*
  - *Caregivers*

Driving: The Primary Mode

- Studies show a relationship between health, sense of autonomy & **driving**.
- **Loss of mobility** can lead to depression, low life satisfaction, health problems, isolation, and loneliness
- *Distinguish Driving from Car Dependence*

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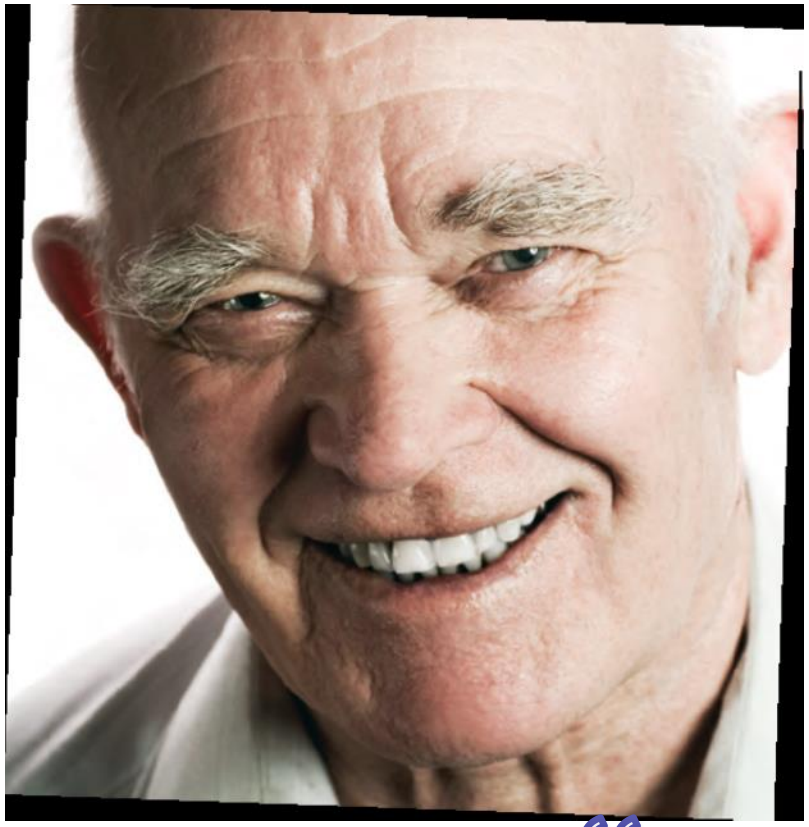
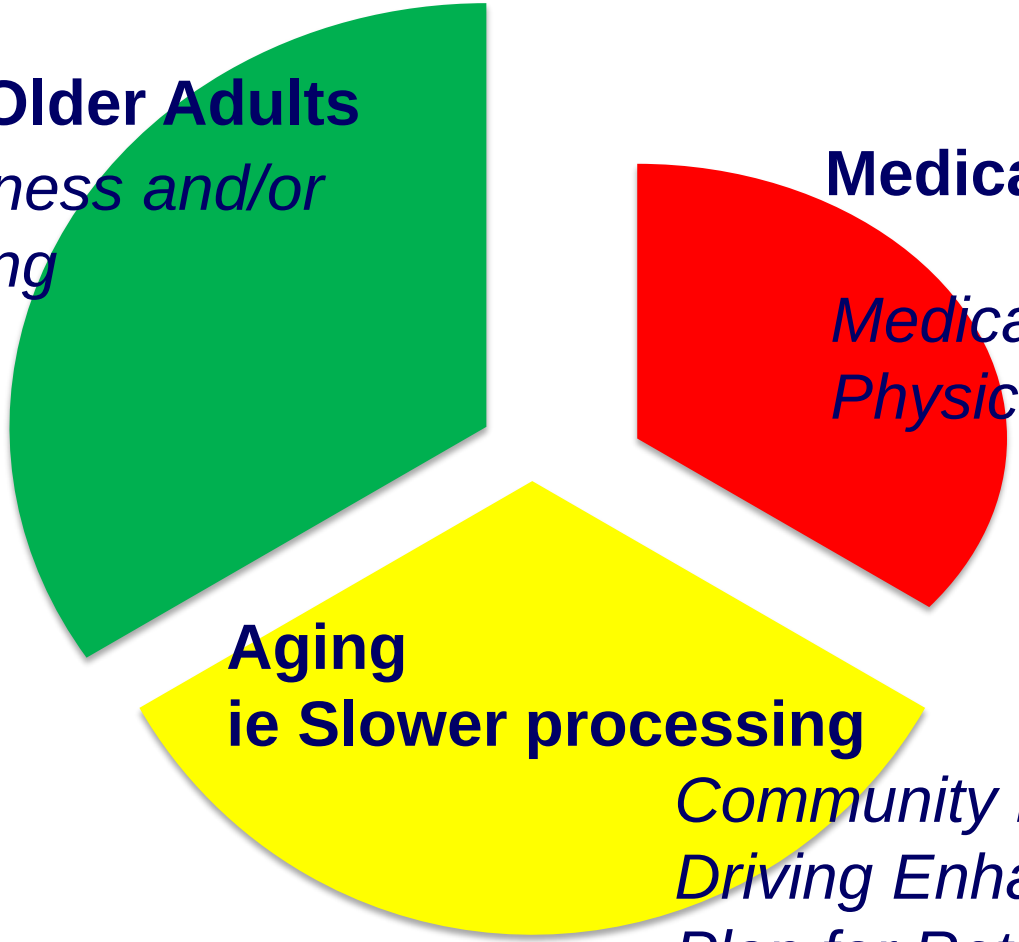


- The dominance of the passenger automobile is changing
- Participation and engagement are critical to health

"aging in place"

Older Adults - Heterogeneous



Healthy Older Adults

Awareness and/or
Planning

Medically at Risk

Medical Providers:
Physician OT-DRS

Aging
ie Slower processing

Community based
Driving Enhancement
Plan for Retirement

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Changes Associated with Aging

- Aging
  - Changes in **V**ision, **C**ognition, & **P**hysical
  - Resilient survivors - experts at change
- Medical Conditions
  - **Medically related changes are not to be confused with "normal aging"**
  - Certain medical conditions impact **DRIVING FITNESS**

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Risk due to Frailty and Fragility

"sustain injuries more easily & are more frail which reduces their odds at recovering from injuries."

"At crash speeds of 31 mph, the risk of sustaining a serious injury increases dramatically.

- A 50-year-old female has about a 10% risk of serious injury in a frontal crash, but
- An 80 year old female has about a 40% risk.

2013 DOT HS 811 864 www.NHTSA.gov

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CarFit

Helping Mature Drivers Find Their Safest Fit

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AAA

AARP DRIVER SAFETY

- Adjust safety features
- Aftermarket solutions
- Awareness:
  - Now
  - Future

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Implications for Aging in Place

- Men and women will outlive their driving life by 7-10 years.
- Implications:
  - A DECISION to stop
  - Safety requires stopping BEFORE the crash
  - When? There is no one universal test
  - Its about mobility … embrace alternatives

Aging with Medical Conditions

- Living longer … transportation mode will change
- Financial Planning, Living Wills ….
  Transportation Planning
  - When choosing housing & communities
  - Walkability
  - Car Dependence
- Be part of the decision to stop

Support Cessation

Strategies:

- ❑ Alter the keys
- ❑ Move the hook
- ❑ Disable car
- ❑ Loan/ give/ sell
- ❑ Physician note

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DRIVER PLANNING AGREEMENT

Helping families plan *together* for continued, safe mobility

I realize that the natural aging process may, at some point in the future, affect my ability to drive safely. By taking the time now to work closely with my family, I can develop a plan to ensure my safety and the safety of others while also maintaining my mobility and independence.

The most important thing my family can do is to help me **explore all of my options** to keep me driving or mobile. If concerned about my driving abilities, help me access the appropriate resources or services that can potentially mitigate these concerns so that I may safely drive. Examples include, but are not limited to:

- Help me find an occupational therapist who is trained to address the problems that put me at risk behind the wheel and equipped to develop an individualized plan to use moving forward;
- Ensure that I am able to visit my primary care physician or local pharmacist to review how medications I take may affect my driving;
- Assist me in accessing an eye doctor or vision care specialist who can address my needs;
- Help me determine how I can appropriately self-regulate when and where I drive so that I maintain maximum comfort and safety behind the wheel; and
- Encourage me to take a driver-improvement course to refresh my skills and learn new techniques for adapting to my changing needs as an aging driver.

Additionally, I want my family help me **explore other forms of transportation**, showing me all of my choices, and recognizing that these options may complement my driving or be used as a substitute to extend my mobility should driving become unsafe. Examples include, but are not limited to:

- Discuss the places I enjoy going and the destinations I need to reach to ensure I maintain a high quality of life;
- Identify local public and private transportation options available in my community (e.g., carpooling, public transportation, local organizations with a volunteer driver program, or other services) so that I am aware of my options;
- Introduce me to these transportation options before I must rely on them so that I become familiar with them when I do choose to use them; and
- Recognize that I may need support and practice to feel safe using these other transportation options. It may take a few rides or the companionship of a friend to accompany me until I am comfortable. If necessary, we will make certain I have the necessary support services to ensure I can get home safely.

I trust my family to prioritize my safety and mobility and to not ask me to stop driving until all options have been explored.

Should it become necessary to discuss if it is safe or reasonable for me to continue driving,

I designate _____ to address this issue with me.
(name of family member or trusted friend)

Signed: _____ Date: _____
(Your signature)

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Understand Driving Capacity

- Screen
  - To build awareness +/or justify more testing
  - Cut point tolerates false positives or negatives
- Test (such as BMV test)
  - Measures specific criteria with a Pass/Fail
- Evaluation – integrates and interprets tests
- Comprehensive Driving Evaluation
  - integrates and interprets clinical plus on-road

Multiple services for “testing”

- Distinguish purpose and scope
  - Driving School road test
  - Test at state licensing agency
  - The occupational therapy comprehensive driving evaluation

Driving Skills & Behaviors

1. **Operational** – Human/machine interaction
   - Steering, pushing brake pedal, turn signal,
   - Physical skills to carry out the tactical maneuvers.
   - Overlearned skills of driving
2. **Tactical** – Decisions/maneuvers made during driving maneuvers
   - Slowing due to weather
   - When to make the left turn or whether/where to pass.
3. **Strategic** – Decision making process
   - Determining trip goals and mode or transport (e.g., bike or car?)
   - Navigating/Way finding
     - How to get there
     - Change in “plans” while on the road.

*Circular of the Transportation Research Board (2016), Based on Michon, 1985

OT- DRIVE

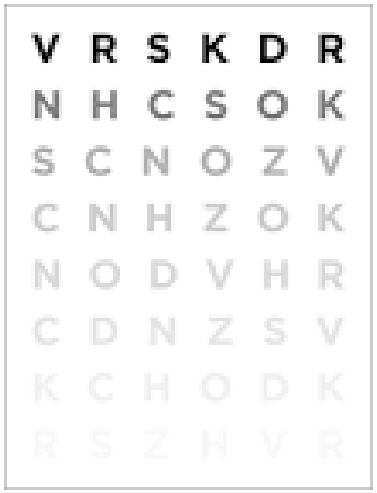
- Understand the importance of driving & mobility
- Routine IADL
- Readiness & intervention
- Address risk in clinic or via CDE
- Data driven actions

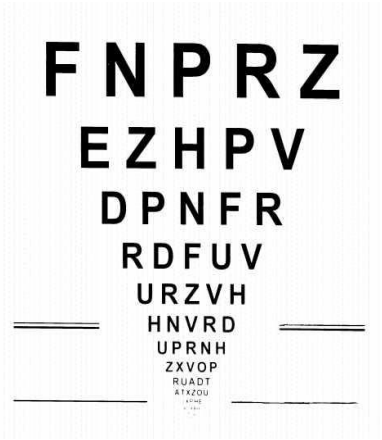
OT- Comprehensive Driving Evaluation

- Involves 3 primary components:
  - Occupational Profile
    - History, current situation, the individual's goals
    - The importance of **driving** to the individual
  - Administration, scoring and interpretation of clinical tests, evidence-based measures of driving capacity
  - Functional on-road test where skills are observed in context

Vision Screening

Tests for:
Visual Acuity
Visual Fields and Neglects
Depth Perception
Night Vision
Glare Recovery
Contrast Sensitivity





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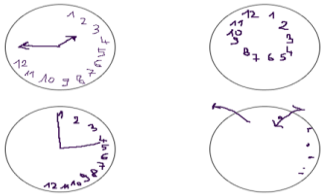
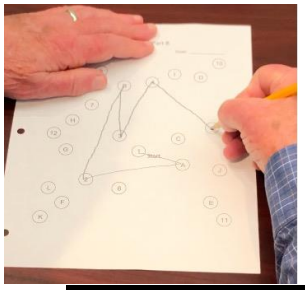
Evidence Based Tools

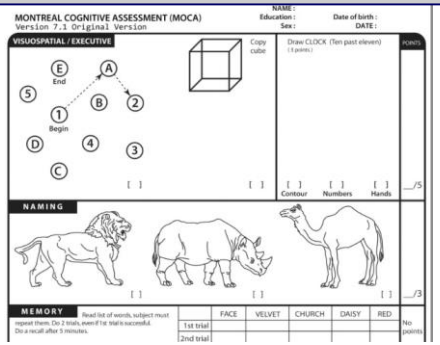
Visual Spatial, Executive Function, Semantic Memory

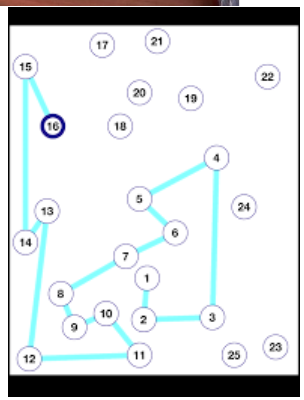




Attention
Executive Function

Memory, Orientation, Concentration





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Physical Assessment

Underlying Physical Capacity:

ROM and Strength Testing for UE's and LE's
Neck ROM
Trunk Control and Sitting Balance
General Coordination Testing
Sensation and Proprioception
Reaction time

Potential Solutions:

Adaptive Equipment
Spinner Knob
Turn Signal Extension
Left Foot Accelerator
Hand Controls
Supplementary Mirrors
Transfer Aides
(straps, grab bars)
Reduced effort steering devices
Van Modifications
& highly technical equipment
Wheelchair lifts, Scooter Lifts and related systems

Caregiver: Swing out passenger seat, WC equipped transport van

IADL Functional Performance Based Assessment (on-road assessment)

All relate to vision, motor, and cognitive functioning

Operational:
Using Controls
Lane Positioning
Visual Scanning
Lane Changes

Tactical:
Attending to signs
Speed/Reaction Time
Complex Intersections
Rules of the Road

Strategic:
Self Directed Driving
Problem solving (return to…)
Road construction?

OT- Comprehensive Driving Evaluation

- Clinical & on-road data consolidated into report
- Strengths and limitations identified
- Solutions and recommendations:
  - Remediation
  - Adaptations and vehicle modifications
  - Training
  - Cessation (soon or now)
  - Transportation Plan (preserve mobility as driver or passenger)
- Therapy recommendations including cessation support

Certified Specialists

SCDCM AOTA

Professional Portfolio of Education and Experience

2000 hours of experience as an occupational therapist

Additional 600+ hours providing Driving and Community Mobility services

https://www.aota.org/education-careers/advance-career/board-specialty-certifications/driving-community-mobility.aspx

CDRS

ADED (Association of Driving Rehabilitation Specialists)

Pass Exam

Does not need to be an OT

a. 4 year health related degree + 1700 hours experience in driving rehab
b. 2yr degree + 3400 hrs experience in driving rehab
c. No degree + 5000 hrs experience in driving rehab (role not defined)

http://www.aded.net/?page=215

Certification is not required – but recommended once experienced

“Personal Paratransit”

- Mobility equipment to support caregiver
- Spontaneity and participation

Older Driver Safety Awareness Week

The first full week in *December*, aims to widely promote awareness & understanding through media stories, social media, local evants

- Monday: Family Conversations
- Tuesday: Screening/Evaluations
- Wednesday: Driving Equip/Adaptations
- Thursday: Taking Changes in Stride
- Friday: Mobility beyond the car

- Get Involved!!

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Thank you!

For more information please contact

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