

PARKINSON'S DISEASE & DRIVING

Recommendations for increasing safety & independence with community mobility!



Areas to Consider that Impact Driving Safety

MOTOR

- strength
- balance
- coordination
- range of motion
- endurance
- reaction time

COGNITION

- scanning/searching
- attention
- working memory
- problem solving
- sequencing
- wayfinding/navigation

VISION

- glare recovery
- detecting traffic light colors
- depth perception
- ability to read signs at a distance
- driving at night or in inclement weather

WHAT IS A COMPREHENSIVE DRIVING EVALUATION?



HOME
AND
DRIVING

An evaluation to determine Fitness to Drive

A comprehensive driving evaluation is conducted by an Occupational Therapist Driver Rehab Specialist (OTR DRS) and considers your past medical history and driving performance. *First*, a Clinical Assessment of cognitive, visual, & physical skills needed to remain a safe driver is completed. Provides objective measurements and baselines. *Second*, you participate in an On-Road Assessment of driving performance in driving scenarios to demonstrate abilities with reaction time, judgement, navigation, & visual processing. *Finally*, the OT DRS/CDRS reviews results, recommends driving modifications/limitations, and possibly driving retirement.



WHAT IS THE RESEARCH SHOWING?



Finding a basis in science

According to one study published in the Journal of Neurology, Neurosurgery, & Psychiatry, the "Ability to drive was predicted by the severity of physical disease, age, presence of other associated medical conditions, particularly dementia, duration of disease, brake reaction, time on a test rig and score on a driving test. The level of drug treatment and the length of driving history were not correlated. Discriminant analysis revealed that the most important features in distinguishing safety to drive were severe physical disease (Hoehn and Yahr stage 3), reaction time, moderate disease associated with another medical condition and high score on car testing."

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2077772/>

"7 in 10 Older adult drivers self-regulate their driving behavior."

KNOW WHAT TO LOOK FOR: DRIVING BEHAVIOR WARNING SIGNS

Look for a pattern

- Easily distracted while driving
- Riding the brake
- New dings & dents
- Other drivers often honk horns
- Failure to notice traffic signs
- Minor accidents
- Increased difficulty with left turns
- Family members uncomfortable sharing rides
- Moving into wrong lane
- Confusion at exits
- Getting lost in familiar places
- Near misses
- Confusing gas & brake pedal
- Traffic violations
- Increased difficulty with vehicle maintenance
- Increase falls in the home
- Difficulty with with other daily living tasks (cooking, cleaning, etc.)



WHAT ARE THE LAWS REGARDING DRIVING WITH PD?



- Each individual state has its own set of motor vehicle laws as well that apply to disabled drivers
- Disabled drivers are required to inform the DMV about their disability
- Restricted license may be issued based on limited vision, hearing, or mobility





WHY CHOOSE A COMPREHENSIVE DRIVING EVALUATION?

Choosing a professional opinion

- Completed by medical professional (Occupational Therapist Driver Rehab Specialist)
- Provides objective measurements of driving abilities
- Helps determine if driving limitations are needed
- Helps educate about transportation options in your community
- Helps assess safe & appropriate alternative transportation based off cognitive or physical challenges

WHAT IS AN OT DRIVER REHAB SPECIALIST & COMPREHENSIVE DRIVING EVALUATION?

Understanding the process

A Comprehensive Driving Evaluation is a medical evaluation completed by an Occupational Therapist Driver Rehab Specialist (OT DRS) to determine a person's *Fitness to Drive*. The evaluation includes a clinical evaluation and an on-road evaluation. The clinical evaluation provides an objective measure of cognition, vision, motor function, & perceptual skills. The on-road evaluation gives the client the opportunity to demonstrate their normal driving routines and skills.

According to The American Occupational Therapy Association (AOTA). "Occupational therapy practitioners have the science-based knowledge to understand progressive conditions and life changes that can affect driving. Because occupational therapy practitioners take the time to understand the role that driving plays in your life, they are able to help individuals make a smoother transition from driving to using other forms of transportation."



FUNCTIONAL IMPLICATIONS OF DRIVING

How PD may impact driving skills

- difficulty transferring in/out of the vehicle,
- reaching for and fastening/unfastening the seat belt,
- inserting the key in the ignition and turning,
- steadily rotating the steering wheel,
- accurately reaching for vehicle controls on the steering column and dashboard area,
- turning head to scan environment visually
- smoothly depressing/releasing the foot pedals.



PD, COGNITION, & DRIVING

How our choices impact driving safety

- timely decision making
- judgment
- problem solving
- attending to the driving task and driving environment simultaneously
- memory
- navigating through complex driving environments
- anticipating other drivers & their decisions

WEBSITES & ADDITIONAL RESOURCES

Check out the following websites, blogs, & national organizations for more information on Driving & Parkinson's Disease

- Parkinson's Foundation
 - <https://parkinson.org/Living-with-Parkinsons/Managing-Parkinsons/Activities-of-Daily-Living/Driving>
- Michael J Fox Foundation
 - <http://event.netbriefings.com/event/pdeb/Archives/driving/register.html>
- Davis Finney Foundation
 - <https://www.michaeljfox.org/foundation/news-detail.php?ask-the-md-driving-and-parkinson-disease>
- Driving and Parkinson's Disease: Balancing Independence and Safety
 - <https://www.davisphinneyfoundation.org/blog/how-long-can-i-keep-driving-if-i-have-parkinsons/>

