

Driving and Parkinson’s Disease-General Considerations

ADED – The Association for Driver Rehabilitation Specialists

Parkinson’s disease (PD) can present with a variety of symptoms which may include changes in motor, vision, cognition, as well as changes in other daily functions and activities, including participation in driving.

Motor changes are a predominant symptom for PD. Muscle rigidity can affect visual awareness of the driving environment if the driver is having trouble with turning his head to scan while driving (i.e. merging, backing, etc.). **Muscle rigidity and tremors of the legs** may impact leg movement between the gas and brake pedals, braking response, and holding pressure on the brake, such as at a stop light.

Dystonic posturing, which can occur in the neck, trunk, or extremities, can further impact reaction time and ability to operate foot pedals, steer or check for oncoming traffic. **Motor changes** in the arms may impact turning the steering wheel, use of the turn signal, and operation of controls such as the wipers, lights, and temperature control. **Decreased reaction times and lower extremity rigidity or tremor** may impair one’s ability to transition smoothly and quickly from gas to brake.

Vision changes, while often overlooked, may be experienced by persons with Parkinson’s disease and may include dry eye, double vision, difficulty reading, and changes in muscles used to move the eye. These changes may be a result of the disease and/or the medications used to treat the disease.

Cognitive changes with concentration, memory, and multitasking may also be experienced by some persons with Parkinson’s disease. These changes may result in difficulty managing intersections, deciding when it is safe to make a left-hand turn, and remembering a familiar driving route.

Daytime sleepiness and fluctuations in level of arousal due to on/off times of medications is common. The timing of **medications** is especially important for balancing dopamine levels as they can positively or negatively affect driving performance. **Dyskinesia**, which is involuntary movements, is often seen as a side effect of medication.

Warning signs to look for:

- Forward head posture causing decreased neck and trunk flexibility
- Getting physically “stuck” during walking or other activities
- Fluctuation in level of arousal
- Inappropriate or inconsistent driving speeds
- Hitting both pedals with one foot by accident
- Slow to identify and avoid potentially hazardous situations
- Slow motor performance
- Accidents or near misses
- Pattern of getting lost, even in familiar areas

If you or someone you know is having any of the above warning signs, a driver evaluation may be indicated. A driver rehabilitation specialist with knowledge about medical conditions can provide a comprehensive evaluation to determine one’s ability to drive.

continued



Comprehensive Driver Evaluation

A baseline comprehensive driving evaluation is recommended* when a person experiences mild motor disability. The baseline assessment should be followed by annual comprehensive driving evaluations. The goal is to maintain safe and independent driving for as long as possible, while realistically planning for eventual driver retirement.



The driver evaluation should include assessments of:

- Vision and perception
- Cognition including cognitive processing speed
- Range of motion
- Reaction time
- Trunk strength
- Ability to transfer into the vehicle
- Ability to don/doff seatbelt and adequately set up the vehicle for driving
- Use of mobility devices such as walker, wheelchair, scooter.

Certified Driver Rehabilitation Specialist

CDRS (Certified Driver Rehabilitation Specialist) is a credential offered by ADED: The Association of Driver Rehabilitation Specialists representing advanced experience and expertise in diverse areas within the field. A CDRS is an experienced practitioner in the field of driver rehabilitation who, through successful completion of a formal certification examination, has proven their capacity to provide services within the full spectrum of driver rehabilitation services. The CDRS is considered by ADED to be the gold-standard in terms of driver rehabilitation service provision. A CDRS is obligated to follow ADED's Best Practice Guidelines to keep driver evaluations standardized, formalized and objective, and attests they will adhere to ADED's Code of Ethics. To find a CDRS in your area, search the membership directory at www.aded.net.

* Cooperative agreement with the National Highway Transportation Safety Administration (NHTSA) and the American Occupational Therapy Association (AOTA): The Pathways Project to Foster Occupational Therapist Engagement in Older Driver Rehabilitation, 2010-2015. NHTSA Cooperative Agreement Number: DTNH22-11-H-00340. Expert Consensus Statements, page 7.