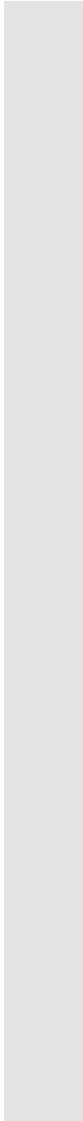


# Driving

Julie Muccini, MS, OTR/L

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October 12, 2022



No relevant financial or nonfinancial  
relationships to disclose.

## Goals of talk:

1. Review issues that may compromise driving ability for individuals with Parkinson's Disease, PD.
2. Increase understanding of Clinic Based Occupational Therapy, OT, Driving Evaluation.
3. Review CA State Law about PD and driving
4. Describe the DMV Driver Medical Evaluation
5. Increase awareness to local and national level resources

# Issues that may compromise driving ability

- Cognitive skills

Refers to one's ability to receive and process incoming information by using:

- Perception
- Reasoning
- Judgement
- Memory



- Visual Skills

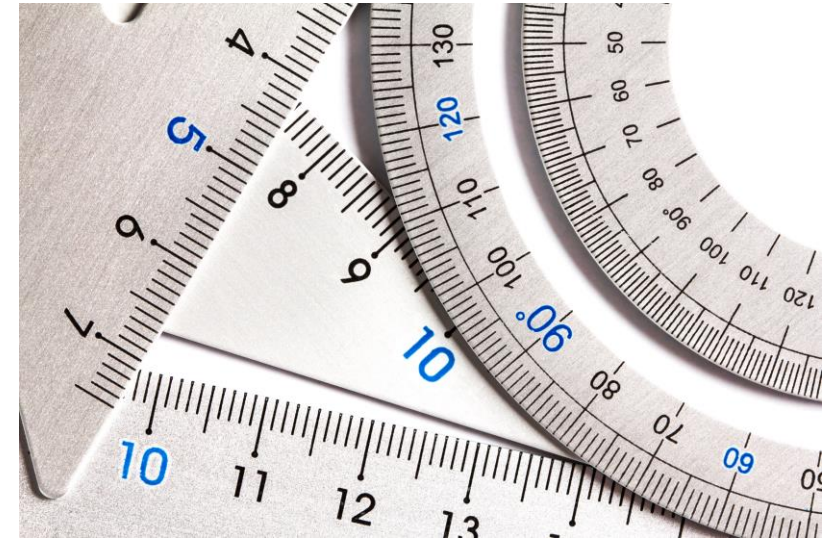
Patient may experience changes in their VISUOSPACIAL SKILLS

- The ability to gauge the distance to a stop sign or other vehicles.
- Difficulty maintaining a safe lane position.

# Motor Skills... not your car's motor

- Motor Functioning...your movement may be slower
- Strength
- Balance
- Range of motion may be diminished, leading to poor posture

- Neck
- Shoulders
- Trunk rotation



- Muscle tightness
- Rigidity
- Tremor
- May impair ability to react quickly to emergencies or changing traffic patterns

# Excessive Daytime Sleepiness, EDS

- Drivers with EDS-related diseases were separated into three groups. Individuals with PD/epilepsy had the highest odds ratio, OR of 2.5, which means a higher probability of single-vehicle crashes than multiple-vehicle crashes compared to the reference group (Group 4)
- PD/epilepsy group n = 645, Sleep apnea, n=2,165, sleep disorders, n=724, Reference group, n=50,556
- Åsa Forsman, Anna Anund, Marie Skyving & Ashleigh J. Filtness (2021) Injury crashes and the relationship with disease causing excessive daytime sleepiness, Traffic Injury Prevention, 22:4, 272-277, DOI: [10.1080/15389588.2021.1894639](https://doi.org/10.1080/15389588.2021.1894639)

-

## How to see the Stanford OT for a Clinic Based Driving Evaluation

- Make an appointment with your Neurologist
- Request your Stanford MD place a referral for an OT driving assessment.
- Check your insurance coverage
- Schedule an appointment in Outpatient Neuro Clinic, 213 Quarry Road, Palo Alto

# Outpatient Neuro Rehab Clinic Driving Assessment

<https://stanfordhealthcare.org/medical-treatments/d/driving-simulation-training.html>

- May take **1-3** visits to complete the assessment
- OT's are not the DMV
- Patient will be assessed using some not all of the following tests:

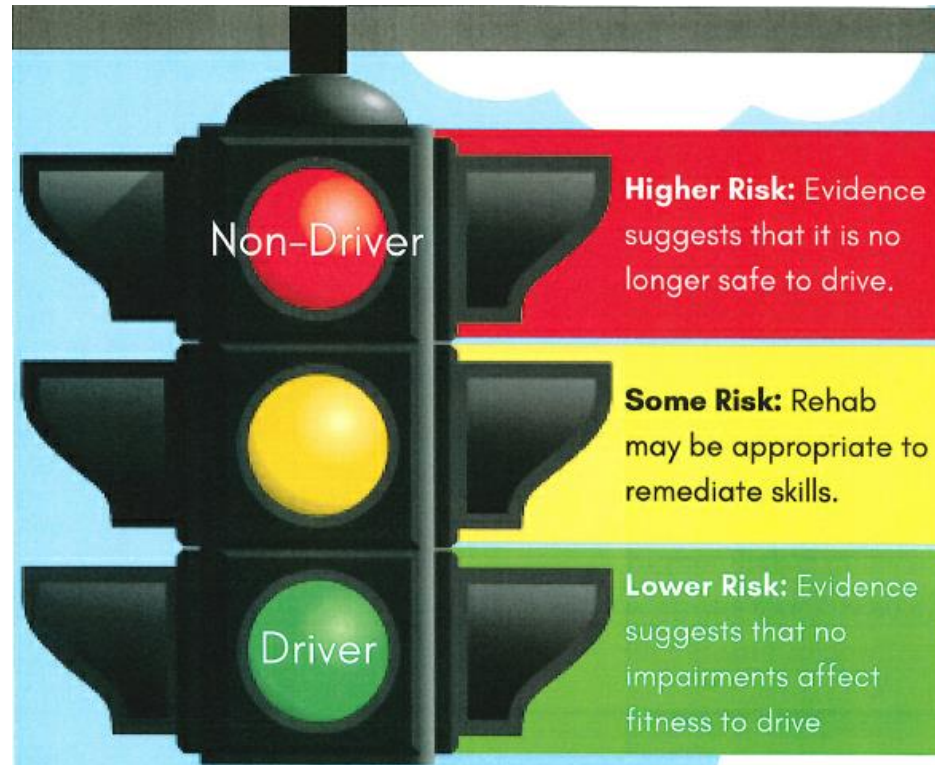
- Useful Field of View, UFOV
- STISIM Driving Simulator
- Rookwood Driving Battery Assessment
- Bioness Integrated Therapy System, BITS
- Manual Motor Muscle assessments
- Snellen Visual Acuity



*Julie Muccini sitting in STISIM Driving Simulator  
Stanford Healthcare, Outpatient Neuro Rehab Clinic*



# Outpatient Neuro Rehab Clinic Driving Assessment Statement



"Remember, the DMV has the ultimate determination of your driving status or potential. These evaluations in Occupational Therapy at Stanford do not replace those of the DMV. An in car driving evaluation is the ultimate gold standard of testing to determine driving safety. These Driving Simulator assessments as well as cognitive and perceptual tests provide a snapshot in the clinic setting and are meant to facilitate awareness of driving safety potential. Consult the DMV if you have questions about driving."



CA DMV

[www.DMV.CA.GOV](http://www.DMV.CA.GOV)

<https://www.dmv.ca.gov/portal/driver-education-and-safety/medical-conditions-and-driving/>

## *“Medical Conditions and Driving*

*Certain medical conditions can affect your ability to drive safely but having a medical condition does not mean that your driving privileges will be restricted. Whether you have an illness, injury, or you take medication that causes certain side effects, **if you are diagnosed with a medical condition that may affect your driving, you should let the Department of Motor Vehicles (DMV) know.***

## Medical Conditions

<https://www.dmv.ca.gov/portal/driver-education-and-safety/medical-conditions-and-driving/>

- Dementia
- Diabetes
- Lapses of Consciousness
- Vision Conditions

What qualifications does DMV use to investigate or reexamine drivers?

<https://www.dmv.ca.gov/portal/driver-education-and-safety/medical-conditions-and-driving/evaluation-guidelines/>

**Physical, Sensory, and Mental Requirements**

+

**Medical & Emotional Requirements**

+

**Physical and Mental Condition**

+

**Compensating Factors**

+

**Driver Understanding and Awareness**

+

**Decision Options**

+

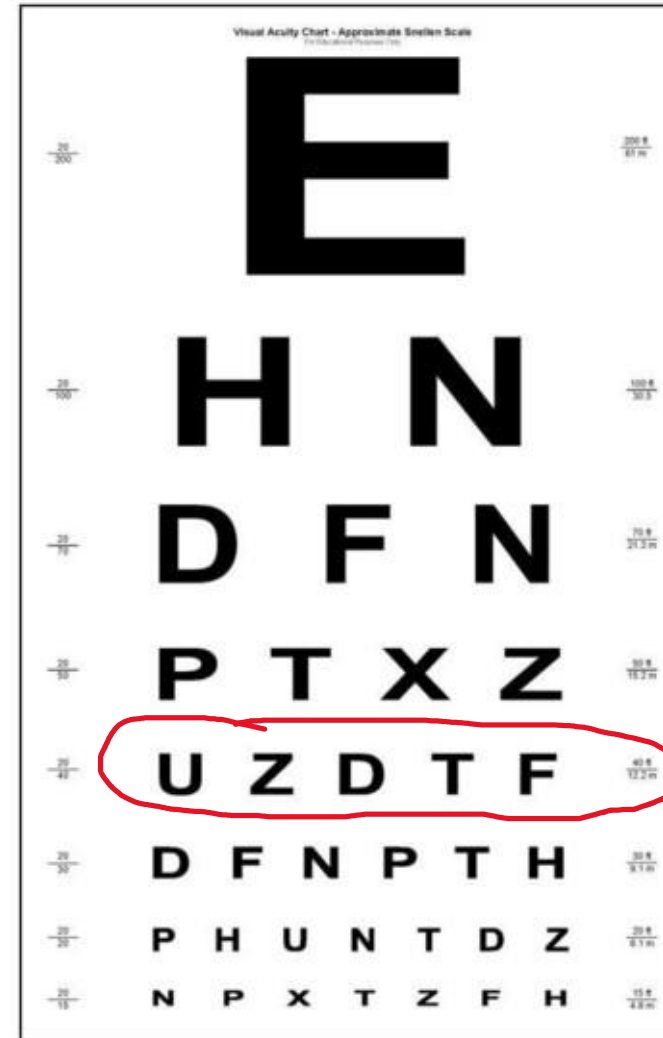
**Hearing Rights**

+

# CA DMV Vision Test: Remember to bring your most current glasses to the DMV

- Vision exam requirement
- A 20/40 visual acuity with or without glasses is the department's vision guideline.
- Visual acuity measurements are obtained for both eyes together and for each eye separately while both eyes remain open, as in normal driving. There are two methods of testing, a Snellen chart or Optec 1000 Vision Tester.
- Applicants who do not pass either exams may, depending on the circumstances, be referred to a vision specialist.

Snellen Chart:  
At the DMV  
they show five  
rows of this  
size of letters.  
One row is  
selected for  
you to read.



Acuity 20/40

# CA DMV Medical Evaluation Form

<https://www.dmv.ca.gov/portal/file/driver-medical-evaluation-ds-326-pdf/>

- **DRIVER MEDICAL EVALUATION** (Medical information is CONFIDENTIAL under Section 1808.5 CVC)
- **INSTRUCTIONS TO THE DRIVER:** Please take this form to the medical professional **most familiar with your health history** and current medical condition. Before giving this form to your medical professional, complete and sign Sections 1-3. PLEASE PRINT LEGIBLY.
- **INSTRUCTIONS TO THE MEDICAL PROFESSIONAL:** Please complete Sections 5-13, on pages 2 through 5. The Department of Motor Vehicles' records indicate your patient may have a condition that could affect the safe operation of a motor vehicle.



## DRIVER MEDICAL EVALUATION

(Medical information is CONFIDENTIAL under California Vehicle Code §1808.5 CVC)

**INSTRUCTIONS TO THE DRIVER:** Please take this form to the medical professional most familiar with your health history and current medical condition. **Before** giving this form to your medical professional, complete and sign Sections 1-3. **PLEASE PRINT LEGIBLY.**

**INSTRUCTIONS TO THE MEDICAL PROFESSIONAL:** Please complete Sections 5-13, on pages 2 through 5. The Department of Motor Vehicles (DMV) records indicate your patient may have a condition that could affect the safe operation of a motor vehicle. In this case, the department is concerned about the following condition:

PHYSICIAN RETURN FORM TO:

RETURN BY:

FAX NUMBER:

### SECTION 1 — DRIVER INFORMATION

NAME (LAST, FIRST, MIDDLE)	DRIVER LICENSE NO.	BIRTH DATE	FIELD FILE
STREET ADDRESS	CITY	ZIP	PATIENT'S DAYTIME OR HOME PHONE NO.

**DRIVER MUST COMPLETE HEALTH HISTORY BELOW. (Please explain any "YES" answers)**

YES	NO		YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	Head, neck, spinal injury, disorders or illnesses	<input type="checkbox"/>	<input type="checkbox"/>	Kidney disease, stones, blood in urine, or dialysis
<input type="checkbox"/>	<input type="checkbox"/>	Seizure, convulsions, or epilepsy	<input type="checkbox"/>	<input type="checkbox"/>	Muscular disease
<input type="checkbox"/>	<input type="checkbox"/>	Dizziness, fainting, or frequent headaches	<input type="checkbox"/>	<input type="checkbox"/>	Any permanent impairment
<input type="checkbox"/>	<input type="checkbox"/>	Eye problem (except corrective lenses)	<input type="checkbox"/>	<input type="checkbox"/>	Nervous or psychiatric disorder
<input type="checkbox"/>	<input type="checkbox"/>	Cardiovascular (heart or blood vessel) disease	<input type="checkbox"/>	<input type="checkbox"/>	Regular or frequent alcohol use
<input type="checkbox"/>	<input type="checkbox"/>	Heart attack, stroke, or paralysis	<input type="checkbox"/>	<input type="checkbox"/>	Problems with the use of alcohol or drugs
<input type="checkbox"/>	<input type="checkbox"/>	Lung disease (include tuberculosis, asthma or emphysema)	<input type="checkbox"/>	<input type="checkbox"/>	Other disorders or diseases
<input type="checkbox"/>	<input type="checkbox"/>	Nervous stomach, ulcer, or digestive problems	<input type="checkbox"/>	<input type="checkbox"/>	Any major illness, injury, or operations in last 5 years
<input type="checkbox"/>	<input type="checkbox"/>	Diabetes or high blood sugar	<input type="checkbox"/>	<input type="checkbox"/>	Currently taking medications

**EXPLANATION:** (Include onset date, diagnosis, medication, doctor's name and address and any current condition or limitation. Attach additional sheet, if needed).

**I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct. I further certify that all information concerning my health is true and correct.**

DATE	DRIVER'S SIGNATURE
	X

### SECTION 2 — DRIVER'S ADVISORY STATEMENT

Medical information is required under the authority of Divisions 6 and 7 of the California Vehicle Code (CVC). Failure to provide the information is cause for refusal to issue a license or to withdraw the driving privilege.

All records of the DMV, relating to the physical or mental condition of any person, are confidential and not open to public inspection (CVC §1808.5). Information used in determining driving qualifications is available to you and/or your representative with your signed authorization.

*The department has sole responsibility for any decision regarding your driving qualifications and licensure. The department will also consider non-medical factors in reaching a decision.*

### SECTION 3 — MEDICAL INFORMATION AUTHORIZATION

MEDICAL PROFESSIONAL, HOSPITAL, OR MEDICAL FACILITY (NAME AND ADDRESS)	
DATE	MEDICAL RECORD/PATIENT FILE NO.

**I hereby authorize** my medical professional or hospital to answer any questions from the DMV, or its employees, relating to my physical or mental condition, and/or drug and/or alcohol use, and to release any related information or records to the DMV or its employees. Any expense involved is to be charged to me and not to the DMV.

**I hereby authorize** the DMV to receive any information relating to my physical or mental condition, and/or drug and/or alcohol use or abuse, and to use the same in determining whether I have the ability to operate a motor vehicle safely.

**NOTE:** You may wish to make a copy of the completed Driver Medical Evaluation for your records.

SIGNED	DATE
X	



# Request for Driver Reexamination



## REQUEST FOR DRIVER REEXAMINATION

### INSTRUCTIONS:

1. Complete this form if you wish the Department of Motor Vehicles (DMV) to reevaluate a driver's ability to drive safely.
2. Sign this request in the signature block provided. You may request that your name not be revealed to the individual being reported. Confidentiality will be honored to the fullest extent possible.
3. Take your completed request to any DMV office or mail to: DMV, Driver Safety Office (see addresses on the next page for your local office.)

Note: All fields marked with an asterisk (\*) are required.

NAME OF PERSON BEING REPORTED (FIRST, M.I., LAST)*	DATE OF BIRTH OR APPROXIMATE AGE*	TELEPHONE NUMBER ( )
DRIVER LICENSE NUMBER	VEHICLE LICENSE PLATE NUMBER, IF AVAILABLE	
STREET ADDRESS*	CITY*	STATE* ZIP CODE*

**DRIVER CONDITION**—Check all appropriate boxes below. Please use the space below to provide specific details, if known, about the driver's medical (physical or mental) condition such as name of disease or illness, any medications taken, etc.

- |  |   |
|--|---|
| <input type="checkbox"/> Medical Condition                 | <input type="checkbox"/> Confused/Disoriented   |
| <input type="checkbox"/> Physical Condition                | <input type="checkbox"/> Alcohol/Drug Use (Describe below)  |
| <input type="checkbox"/> Mental/Emotional Condition        | <input type="checkbox"/> Blackouts, Seizures, Fainting Spells   |
| <input type="checkbox"/> Vision Condition                  | <input type="checkbox"/> Needs help with daily activities (i.e., cooking, dressing, bathing, balancing checkbook) |
| <input type="checkbox"/> Weakness or Coordination Problems | <input type="checkbox"/> Other:   |
| <input type="checkbox"/> Difficulty Walking                |   |

**DRIVER BEHAVIOR**—Check appropriate boxes for driving problems you have observed: (Use space below if needed for additional comments.)

- |   |   |
|---|---|
| <input type="checkbox"/> Does not see or react to other cars, pedestrians, etc.           | <input type="checkbox"/> Turns in front of on-coming cars                                   |
| <input type="checkbox"/> Drives in wrong lane   | <input type="checkbox"/> Allows car to drift in and out of lane                             |
| <input type="checkbox"/> Drives on wrong side of the road                                 | <input type="checkbox"/> Backs up or changes lanes without looking back or checking mirrors |
| <input type="checkbox"/> Acts violent or aggressive when driving                          | <input type="checkbox"/> Applies brake and gas pedals at the same time                      |
| <input type="checkbox"/> Drives too slow, or stops, for no reason                         | <input type="checkbox"/> Slow reactions that may be caused by medications or drugs          |
| <input type="checkbox"/> Has trouble steering, braking, or otherwise controlling car      | <input type="checkbox"/> Drives on sidewalk   |
| <input type="checkbox"/> Is confused by traffic   | <input type="checkbox"/> Makes driving mistakes while talking to passengers                 |
| <input type="checkbox"/> Gets lost or confused while driving near home                    | <input type="checkbox"/> Falls asleep while driving   |
| <input type="checkbox"/> Fails to react to traffic signals, other cars, pedestrians, etc. | <input type="checkbox"/> Other actions (Describe below)                                     |
| <input type="checkbox"/> Makes turns from wrong lane                                      |   |

You may use the space below to further describe the driver's condition(s) or action(s) which lead you to believe this driver should be reevaluated by DMV.

Please continue on the next page.

DS 699 (REV. 11/2016) WWW

Go to Page 2



DRIVER LICENSE NUMBER

VEHICLE LICENSE PLATE NUMBER, IF AVAILABLE

STREET ADDRESS\*

CITY\*

STATE\*

ZIP CODE\*

**DRIVER CONDITION**—Check all appropriate boxes below. Please use the space below to provide specific details, if known, about the driver's medical (physical or mental) condition such as name of disease or illness, any medications taken, etc.

- |  |   |
|--|---|
| <input type="checkbox"/> Medical Condition                 | <input type="checkbox"/> Confused/Disoriented   |
| <input type="checkbox"/> Physical Condition                | <input type="checkbox"/> Alcohol/Drug Use (Describe below)  |
| <input type="checkbox"/> Mental/Emotional Condition        | <input type="checkbox"/> Blackouts, Seizures, Fainting Spells   |
| <input type="checkbox"/> Vision Condition                  | <input type="checkbox"/> Needs help with daily activities (i.e., cooking, dressing, bathing, balancing checkbook) |
| <input type="checkbox"/> Weakness or Coordination Problems | <input type="checkbox"/> Other: _____   |
| <input type="checkbox"/> Difficulty Walking                |   |

**DRIVER BEHAVIOR**—Check appropriate boxes for driving problems you have observed: (Use space below if needed for additional comments.)

- |   |   |
|---|---|
| <input type="checkbox"/> Does not see or react to other cars, pedestrians, etc.           | <input type="checkbox"/> Turns in front of on-coming cars                                   |
| <input type="checkbox"/> Drives in wrong lane   | <input type="checkbox"/> Allows car to drift in and out of lane                             |
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| <input type="checkbox"/> Acts violent or aggressive when driving                          | <input type="checkbox"/> Applies brake and gas pedals at the same time                      |
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| <input type="checkbox"/> Has trouble steering, braking, or otherwise controlling car      | <input type="checkbox"/> Drives on sidewalk   |
| <input type="checkbox"/> Is confused by traffic   | <input type="checkbox"/> Makes driving mistakes while talking to passengers                 |
| <input type="checkbox"/> Gets lost or confused while driving near home                    | <input type="checkbox"/> Falls asleep while driving   |
| <input type="checkbox"/> Fails to react to traffic signals, other cars, pedestrians, etc. | <input type="checkbox"/> Other actions (Describe below)                                     |
| <input type="checkbox"/> Makes turns from wrong lane                                      |   |

You may use the space below to further describe the driver's condition(s) or action(s) which lead you to believe this driver

Second page of Request for Driver Reexamination

\*This allows a person reporting to keep their name confidential.

\*

☐ Relative

☐ Friend

☐ Caregiver

☐ Vision Specialist

☐ Court/Code

☐ Other:

☐ Check here if you would like to have your name kept confidential. Confidentiality will be honored to the fullest extent possible. Unsigned reports will not be considered.

NAME (Please print)\*

DAYTIME TELEPHONE NUMBER  
( )

MAILING ADDRESS (City, State, Zip Code)\*

SIGNATURE \*

DATE \*

YOU MAY MAIL OR TAKE THIS COMPLETED FORM TO YOUR LOCAL DRIVER SAFETY OFFICE AT ONE OF THESE LOCATIONS:

<b>Bakersfield</b>	5800 District Blvd., Ste. 100-B Bakersfield, 93313	<b>Sacramento</b>	4700 Broadway, 2nd Flr. Sacramento, 95820-1501
<b>City of Commerce</b>	5801 E. Slauson Ave., Ste. 250 Commerce, 90040-3050	<b>San Bernardino</b>	1845 Business Center Dr., Ste 212 San Bernardino, 92408-3447
<b>City of Orange</b>	790 The City Dr., Ste. 420 Orange, 92868-4941	<b>San Diego</b>	1455 Frazee Rd., Ste. 400 San Diego, 92108-4378
<b>Covina</b>	1365 N. Grand Ave., Ste. 101 Covina, 91724-4048	<b>San Francisco</b>	1377 Fell St., 2nd Floor San Francisco, 94117-2296
<b>El Segundo</b>	390 N. Pacific Coast Highway, Ste. 2075 El Segundo, 90245-4470	<b>San Jose</b>	90 Great Oaks Blvd., Ste. 104 San Jose, 95119-1314
<b>Fresno</b>	2510 S. East Ave., Ste. 310 Fresno, 93706-5112	<b>Santa Rosa</b>	2570 Corby Avenue Santa Rosa, 95407-6005
<b>Oakland</b>	7677 Oakport St., Ste. 220 Oakland, 94621-1906	<b>Stockton</b>	710 N. American St. Stockton, 95202-1823
<b>Oxnard</b>	2051 N. Solar Dr., Ste. 125 Oxnard, 93036-2650	<b>Van Nuys</b>	6150 Van Nuys Blvd., Ste. 205 Van Nuys, 91401-3333
<b>Redding</b>	2650 Churn Creek Rd., Ste. 200 Redding, 96002-1169		

Print

Clear Form

# Restricted Driver's License

- **The most common driving restrictions affecting senior driver are:**
- No freeway driving.
- Driving a vehicle with an additional right side mirror.
- Driving only from sunrise to sunset (no nighttime driving).
- Time of day restrictions (for example, no driving during rush hour traffic).
- Using adequate support to ensure proper driving position.
- Area restriction.
- Wearing bioptic telescopic lens when driving/restricted to driving from sunrise to sunset

# ADED

THE ASSOCIATION FOR  
DRIVER REHABILITATION  
SPECIALISTS

NHTSA – National  
Highway Traffic Safety  
Administration

- [WWW.ADED.NET](http://WWW.ADED.NET)
- Private on the road assessment.
- Generally, not covered by insurance
- Can cost \$500-\$800 for a 2-hour assessment
- NHTSA – National Highway Traffic Safety Administration
- <https://www.nhtsa.gov/sites/nhtsa.gov/files/10900f-drivewell-handout-parkinsons.pdf>

# The Association for Driver Rehabilitation Specialists: ADED <http://aded.site-ym.com/>

- Mr. Marc Samuels, OT, CDRS,  
The Safe Driver
- [www.thesafedriver.com](http://www.thesafedriver.com)
- Half Moon Bay, CA
- 650-771-2797
- 650-804-1792 VA
- Mr. Derrick P Scott, CDI,  
CDRS, A-Safe Driver, Inc.  
Fit2, Drive Rehab, Apex  
Driving School
- Burlingame, CA
- 650-373-2020
- Mr. Edward Brodd, CDRS,  
Driver Rehab Services, LLC
- San Jose, CA
- 650-690-6618
- Mr. Sam Graf
- Adaptive Driving Aid
- 800/371-4243 408/866-7237  
3155 San Jose, CA 95117



# NMEDA

- The National Mobility Equipment Dealers Association (NMEDA)
- is an advocate for mobility and accessibility for drivers with disabilities. If you need help with converting or buying a handicap accessible van, car or truck, please consider one of a Quality Assurance Program dealers.
- Every NMEDA QAP dealer and technician has been trained and accredited in the highest best practice standards of quality and service to ensure safe and reliable transportation.
- <http://www.nmeda.com/>

Questions?

Thank you!

Julie Muccini, MS, OTR/L

[jmuccini@Stanford.edu](mailto:jmuccini@Stanford.edu)

