



## DRIVER REHABILITATION EVALUATIONS AND TRAINING

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# Introductions

Who does evaluations and training

Occupational Therapist

Certified Driver Rehabilitation Specialist  
(CDRS)

Driver Rehabilitation Specialist (DRS)

Certified Driving Instructors

# WHAT IS A DRIVING SPECIALIST

## CDRS: Certified Driver Rehab Specialist

Driver rehabilitation specialists are professionals with backgrounds in health care and/or driver education and have completed additional training and education in the field of driver rehabilitation. The most knowledgeable of the specialists are Certified Driver Rehabilitation Specialists.

## DRP: Driver Rehab Professional

The DRP micro-credential represents a professional in the field of driver rehabilitation who, through successful completion of specific training courses, is equipped to provide service within basic and low-tech programs.

- Follow Best Practice Guidelines and Code of Ethics
- CEUs are required for renewal

# ASSOCIATIONS

ADED: Association for Driver Rehab Specialists

- ADED.net
- Resources for fact sheets
- Directory of CDRS's
- International Association

NMEDA: National Mobility Equipment Dealer Association

- A national organization that supports mobility dealers and certifies the dealers for levels of technical quality control.
- NMEDA.org
- Directory of Dealers and Manufacturers

# Who Can Benefit from Driver Rehab Services

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ADHD	Muscular Sclerosis	ALS
Anxiety	Dwarfism	Arthritis
Autism	Deafness	Vision Impairments
Cerebral Palsy	Traumatic Brain Injury	Parkinson's
Spina Bifida	Mental Health	Psychological
Spinal Cord Injury	Learning Disabilities	
Stroke	Arthrogryposis	
Muscular Dystrophy	Neuropathy	
Amputations	Aging	

# How Can Clients get referred to a CDRS Program

- Vocational Rehab Counselors
- Rehab Centers
- Rehab Techs
- Self-Referral
- Physicians
- Medical Review Board
- VA
- Mobility Dealer
- Workman's Comp

# UK Driving Program

- Currently only accepts VR referrals
- Referrals are received from Erica Oechsli,  
DRTP Administrative Specialist  
[Erica.Oechsli@ky.gov](mailto:Erica.Oechsli@ky.gov)
- CDRS will make contact and schedule services

Buckle up  
and enjoy  
the Ride





# PROGRAM REQUIREMENTS

- Valid Permit/License
- Physicians Consent
- Eye Exam - State requirements
- VR Authorization

What  
Does a  
Driver  
Evaluation  
Assess

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Clinical Evaluation

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Physical  
Evaluation

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On the Road  
Evaluation

# Clinical Evaluation Components

## Client Interview

Diagnosis

Social History

Pertinent Medical History, including Hx of seizures

Medications

Driving History

Permit/license information

## Physical Evaluation

Range Of Motion

Sensation

Balance

Transfer

Strength

Coordination

Tone

Ambulation

Cognitive Assessment



# CLINICAL TOOLS

- MVPT
- VISION BIOPTER
- TRAILS A & B
- MAZE TEST
- CLOCK DRAWING
- KING DEVICK TRACKING TEST
- SYMBOL DIGIT TEST
- MINI MENTAL

These tools assess attention, focus, processing speed, scanning, divided attention, sequencing, mental flexibility



# Vehicle Set Up

- Determine if any equipment is needed for driving based on the clinical presentation of the client.
- Equip vehicle for eval
- Have other equipment available if needed
  - Steering devices, chest straps, seat cushions, switches



# Purpose of in-traffic evaluations

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Basic vehicle control on real roads

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Awareness and response to environmental details and potential hazards

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Use of secondary controls and mirrors

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Ability to control vehicle around different traffic patterns

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Judgment of vehicle boundaries..space management

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Operation/orientation to adaptive equipment if needed

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Driving problems or behaviors will vary according to disability, diagnosis, driving experience, age, etc



## ADDITIONAL CONSIDERATIONS

- Can they enter and exit the vehicle safely, independently and in a timely manner
- Can they load and unload their mobility device

# Evaluation Recommendations

- Driver training
- Passenger activities for 3-6 months
- Family training
- Visual Field Exam
- Referral to other services:
  - OT/PT
  - Speech
  - Counseling for mental health or life skills







## Recommendations (cont)

- Other services (cont)
  - Wheelchair seating evaluation
  - Rehab Tech
  - Equipment Orientation
  - Vehicle Modification
  - Resume Independent Driving
  - Not a Candidate for Services at this time
  - Defensive Driving Course
  - Department of the Blind

# Driver Training

- Skilled hours
- Progression of training lessons
- Obstacles to learning
- Goals/outcomes
- Family Instruction

# Basis for Skilled Driver Training Hours

- Previous driver with low-tech equipment
  - min. 6 hours
- Previous driver with high-tech equipment
  - Min. 20 hours
- New Driver with/without low-tech equipment
  - 10 - 20 hours
- New Driver with high-tech equipment
  - Min. 30 hours



- Routes
  - Parking lots
  - Residential streets
  - Two and four lane roads
  - Inner city streets
  - Rural roads
  - Interstate

If a driver plateaus in learning any given traffic pattern(s), an increase in training hours could occur or family training could be recommended

Progression of  
Training

Progression of  
simple to  
complex traffic  
patterns

# Obstacles to Learning

- Decreased problem solving
- Decreased reaction time
- Decreased decision making skills
- Decreased interactive social skills
- Decreased visual scanning
- Difficulty learning rules of the road
- Decreased awareness of other users
- Poor R/L discrimination

# Obstacles to learning...cont

- Visual Perceptual Deficits
  - Poor time and space management
  - Parking difficulties
  - Not “seeing signs”, confusing arrows
  - Difficulty positioning car correctly with lane
  - Getting lost in familiar surroundings
  - Inability to pick out important information

# Obstacles to learning...cont

- Cognitive Demands of Driving
  - Arousal/Alertness
  - Attention
  - Memory
  - Judgment
  - Organization
  - Mental Flexibility
  - Problem solving
  - Following Directions
- Visual Demands of Driving
  - Focus
  - Focus while moving
  - Perceive distance
  - See the entire driving environment and attend to multiple stimuli
  - Discriminate colors
  - See in different levels of light

# Obstacles to driving...cont

- The Effects of Aging and Illness on Driving
  - Performance changes
    - Visual acuity
    - Visual field
    - Sensitivity to light
    - Eye-related diseases
    - Physical changes
    - Cognitive changes



## Obstacles to learning...cont

- Adaptive equipment needs
  - Ability to operate smoothly
  - Changes how you operate the OEM controls
  - Another learning objective to teach
  - Family teaching

# Goals/Outcomes for Driver Training

- Licensure
- Supervised driving with family
- Alternative transportation
- Equipment Orientation



# family training



- Family ride along
  - Determine if family can handle unsafe driving issues
  - Provides a firsthand look into driving deficits
- Supervised driving
  - Installation of training brake
  - Re-evaluation 6 – 12 months
- Graduated License
  - 16 – 18 years old
  - Must complete a min. of 60 hrs. OTR, 10 of which are at night.
  - Must complete a 4-hour course provided by the KY Transportation Cabinet in their home county
  - Over 18 years of age, no longer needs 60 hours documented.
  - After passing the road test 16 – 17-year-olds begin the intermediate phase which lasts an additional 180 days.

Vehicle  
Modifications  
Process



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Low Tech

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Mid Tech

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High Tech



# Low Tech Steering Devices

- Round Spinner Knob
- Single Post
- V Grip
- Bi-Pin
- Tri-Pin
- Amputee Ring
- Custom

# Steering Device - Spinner Knob



**Spinner Knob**

# Steering Device - Single Pin Foam Grip



Single Pin Foam Grip



# Steering Device - Tri-Pin Grip



Tri-Pin Grip



# Steering Device - Quad Fork Spinner



**Quad Fork Spinner**

# Steering Device - Palm Spinner



**Palm Spinner**

# Steering Device - Amputee Spinner



**Amputee Spinner**

# Steering Device - Amputee Ring



Amputee Ring

# Steering Device - Single Post



**Single Post**



# Low Tech Hand Controls

- Several different manufactures make hand controls. The most common types are right angle and push rock.

# Hand Controls - Monarch Right Angle



**Monarch Right Angle**



# Hand Controls - Push/Rock





# Hand Controls – Push/Pull

## Veigel Compact II



Veigel Compact II

# Hand Controls – Push/Pull Veigel Basic



Veigel Basic



# Low Tech Secondaries

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## — Examples

- Turn signal
- Horn
- Headlights
- Dimmer
- Wipers

# Secondary Controls - Sure Switch



**SURE  
SWITCH**

# Secondary Controls - RF Touch



RF  
TOUCH



# Secondary Controls - RF Mini



**RF  
MINI**

# Secondary Controls - Horn Buttons



**Horn  
Button**

# Secondary Controls - Remote Buttons



Remote  
Button



# Secondary Controls - RF360



**RF360**

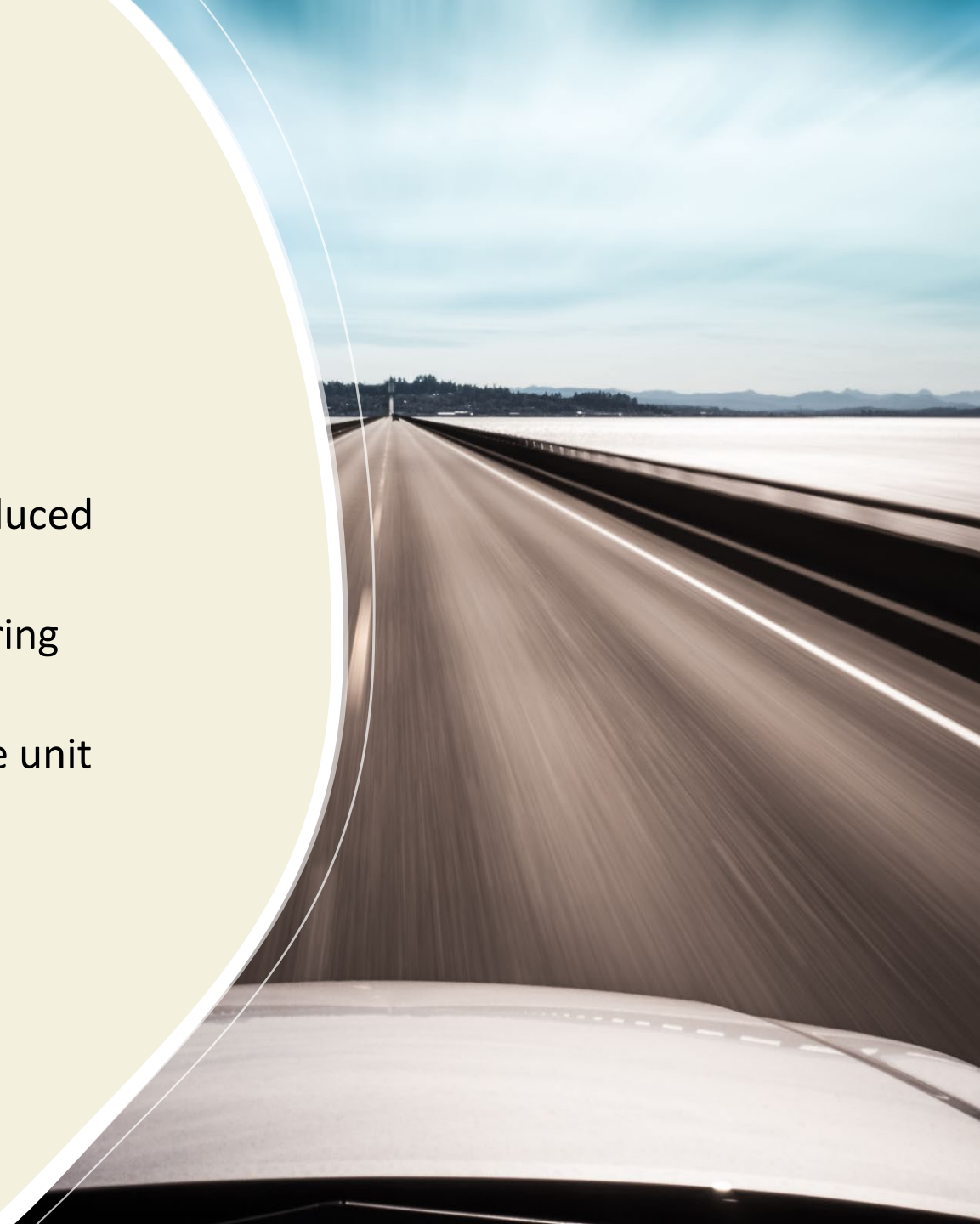
# Secondary Controls - Tri Switch



**TRI  
SWITCH**

## Mid Tech

- Zero Effort Steering
- Hand controls with reduced effort brakes
- Smaller diameter steering wheels
- Powered gas and brake unit
- Power shifter





## High Tech

- Powered gas and brake unit
- Remote steering
- Joy - Stick
  - Gas/brake/steering
  - Gas/brake
  - Steering

# High Tech - Joystick



# High Tech - Single Axis Joystick



# High Tech - Joystick

Gas/Brake & Steering





# High Tech - Remote Steering

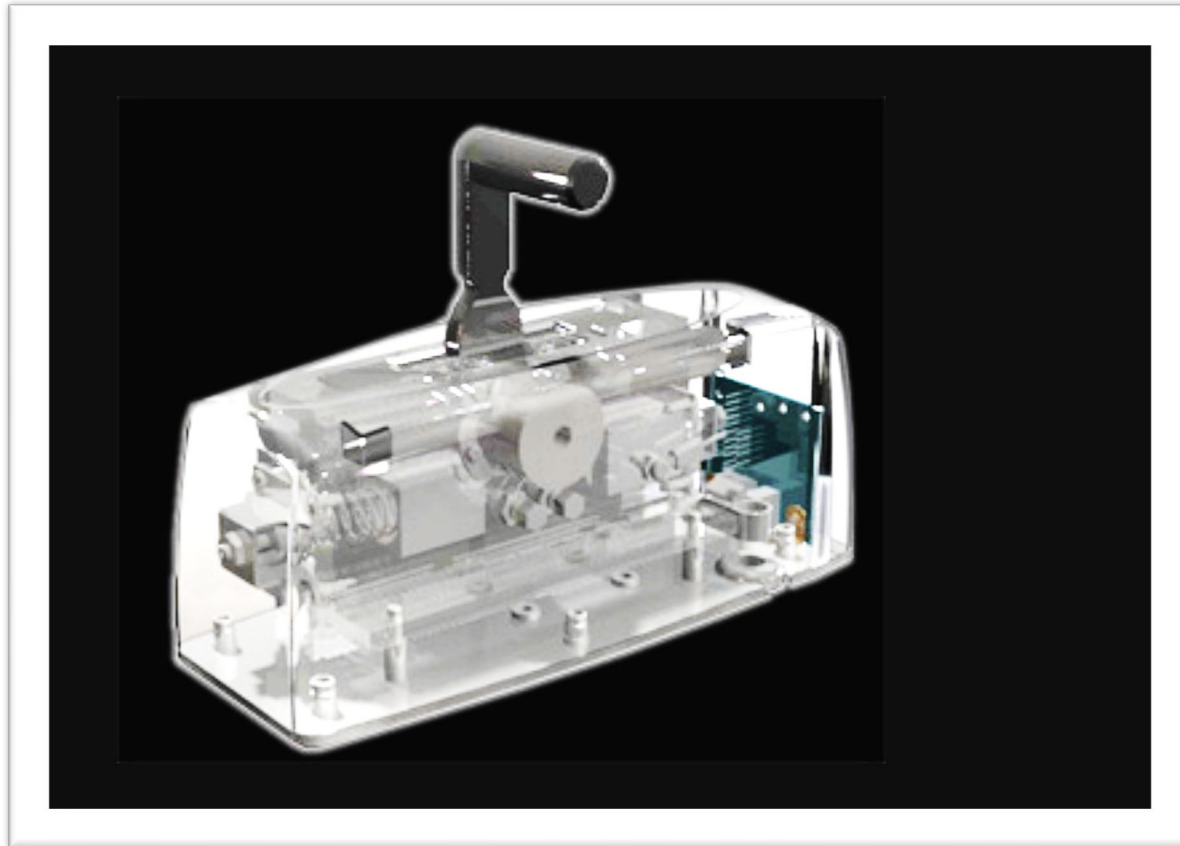




# High Tech – Powered Gas and Brake unit (1)



# High Tech – Powered Gas and Brake unit (2)

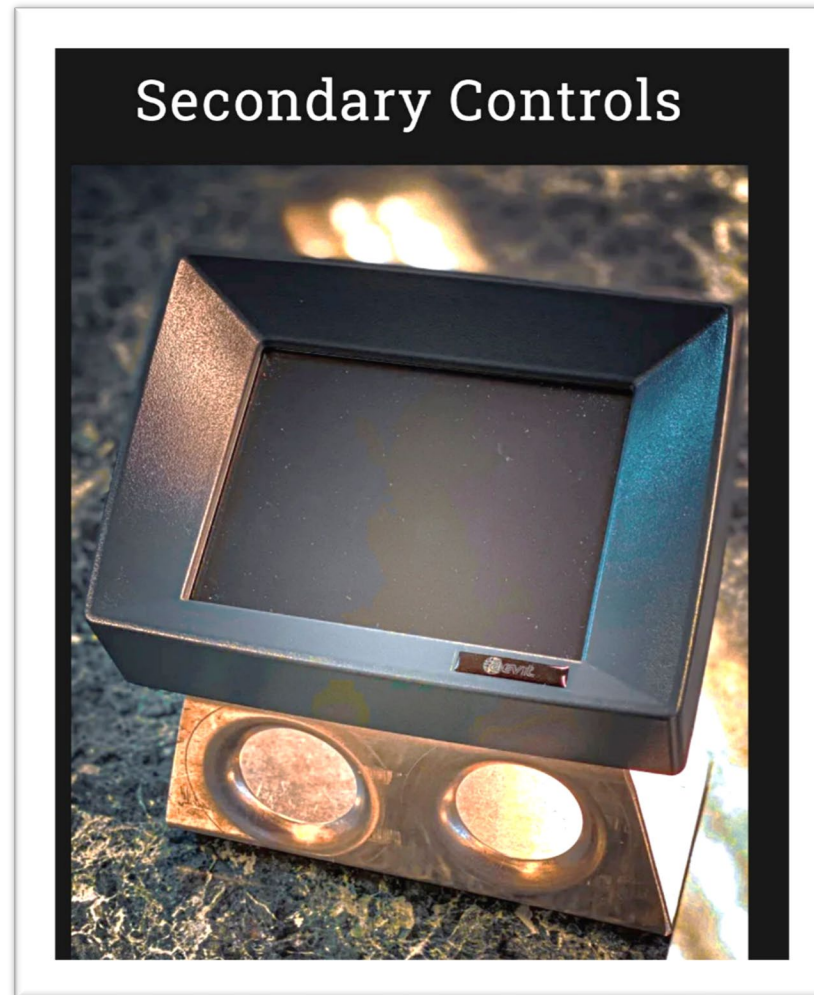


# High Tech Secondary Control

- panel/screen for ignition, shifting, windows, door locks, HVAC
- Digitone or Voice Scan for secondaries



# High Tech - Secondary Controls



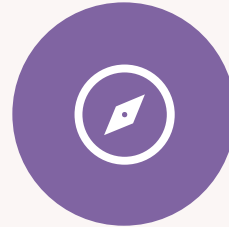
# Vehicle Modification Process



FITTING



INSPECTION



ORIENTATION



DELIVERY

# Transport Evaluations



EQUIPMENT



CONSIDERATIONS



FITTING/INSPECTIONS/  
ORIENTATION WITH  
FAMILY



# Wake Up !!! We are done!!!

- Please join us outside to view equipment on the vehicles.

