Training, Intervention and Adaptation for Driver Rehabilitation

Course Overview

Working in the right front seat requires instruction and training expertise as well as a thorough understanding of disabilities and how they manifest with driving. This two day course will cover how to train from the right front seat, understanding the assessment of driving abilities, and exploration of how different medical conditions and disabilities will manifest or require adaptation for driving. There will be an in-depth look at the prescription of basic adaptive driving equipment, the reasoning required to identify the appropriate adaptive equipment and/or modification. Retraining methods will be discussed including driving simulators, visual training, and on-road training.

This is a theoretical course with the use of videos, case studies and activities to explore the driver rehabilitation and behind the wheel experiences.

Course Objectives

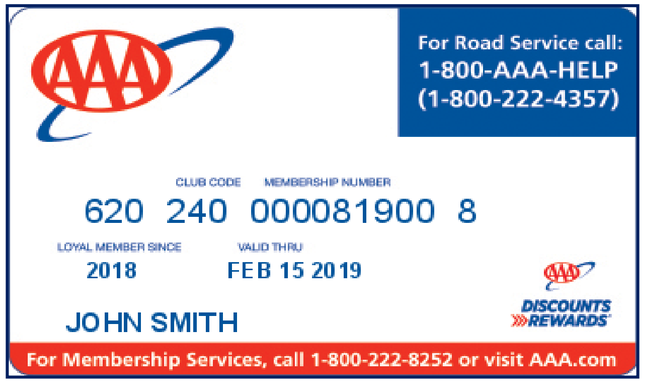
- Analyze the roles of the driver rehabilitation team and learn skills to collaborate to develop and adjust realistic goals based on the client's functional abilities.
- Discuss driver evaluations, including types of evaluation, evaluating clients, and providing feedback
- Develop methods to utilize in-vehicle teaching techniques, including questioning techniques and commentary teaching
- Recognize command and control of the mobile classroom including managing and taking control of the vehicle

Course Objectives

- Identify strategies to improve driving difficulties associated with visual/perceptual, physical, and cognitive challenges resulting from aging or disability. Including effective communication techniques to facilitate driver training with specific special populations.
- Identify low-tech primary and secondary control modifications and analyze which adaptive equipment and modifications are available for specific client medical conditions and functional deficits
- Recognize how low-tech adaptive equipment for operation of primary and secondary controls are installed in driver rehabilitation vehicles

Spectrum of Driver Services
Spectrum of Driver Rehabilitation Program Services

Which Program is Right for You?



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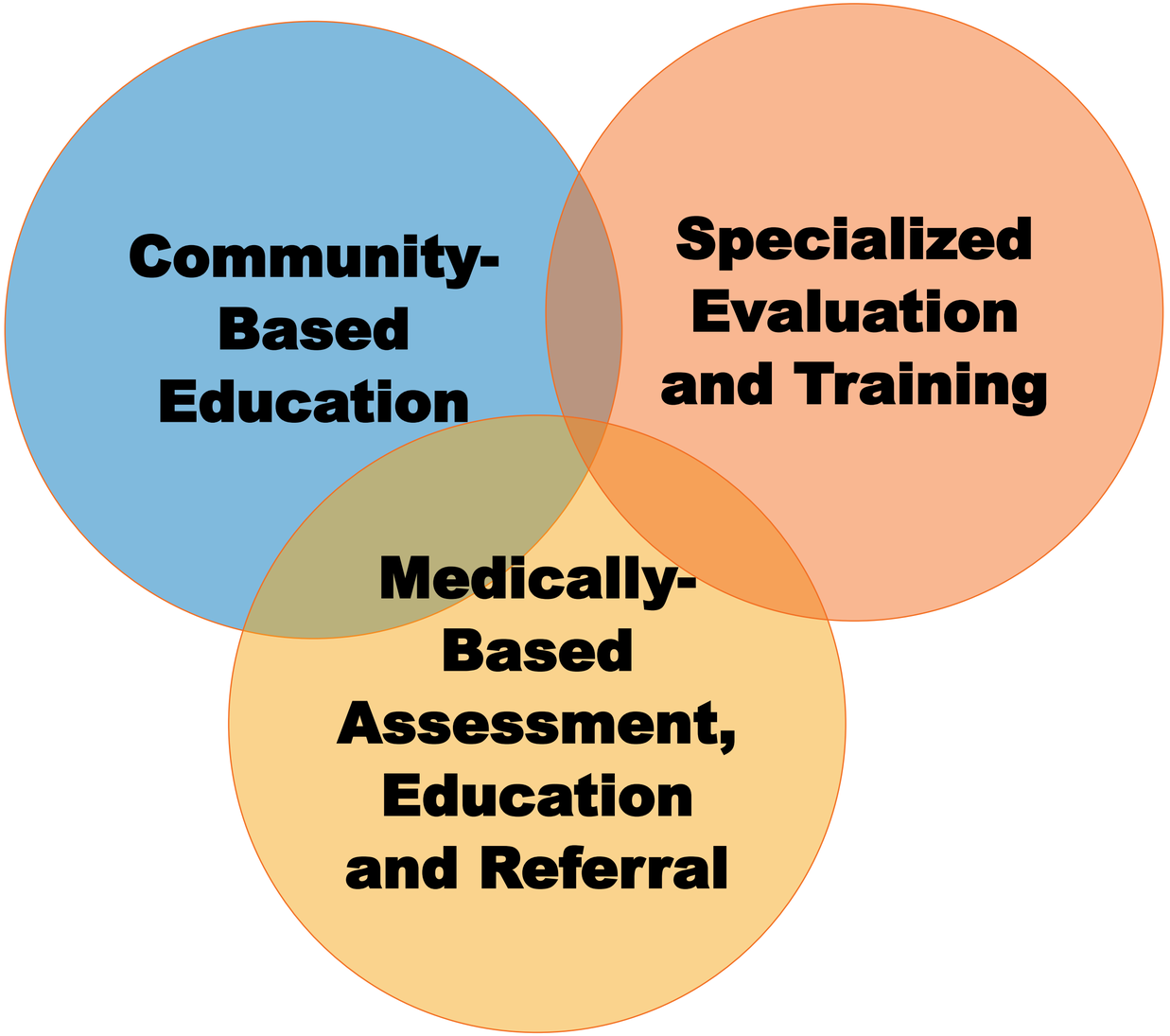
Spectrum of Driver Services



Community Based

- Driver Safety Programs
- Driving School

Medically Based

- Driver Screen
- Clinical IADL Evaluation

Specialized Evaluation

- Driver Rehab
- Driver Evaluation

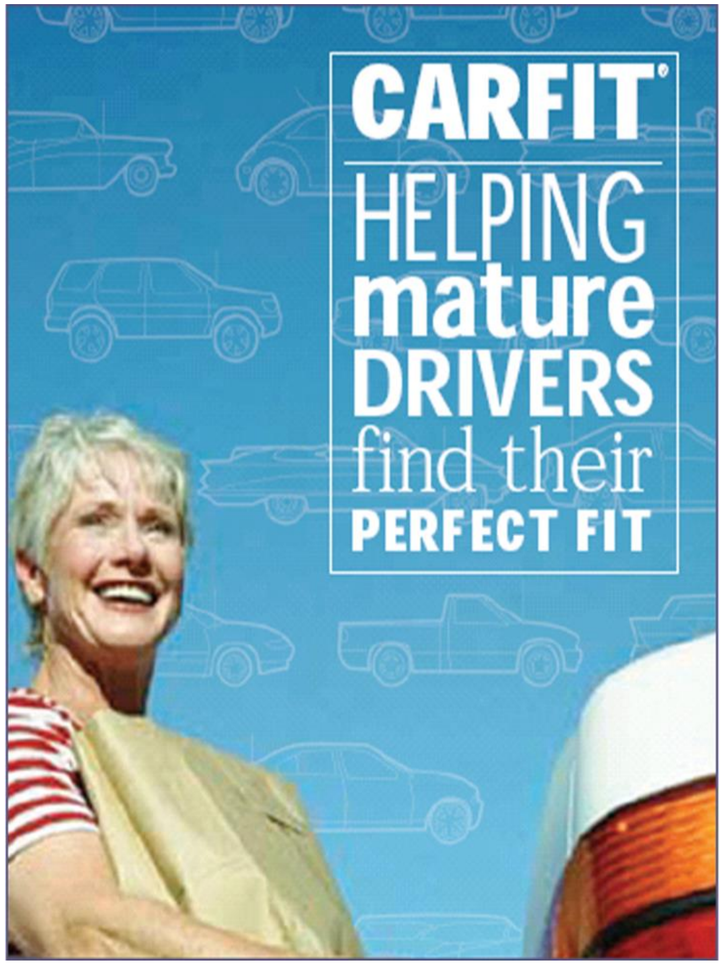
Community –Based Education

Program Type	Driver Safety Programs	Driving School
Typical Providers and Credentials	-AARP/AAA Driver Improvement Programs	-Driving instructor certified by state licensing agency or Dept of Education
Required Providers Knowledge	-Program specific knowledge -Trained in course content and delivery	-Instructs novice or relocated drivers, excluding medical/aging conditions
Typical Services Provided	-Classroom/computer-based refresher -Enhance self awareness, choices, and capability to self limit	-Enhance driving performance -Acquire driver permit/license -Counsel student driver skill development -Remedial programs
Outcome	-Education and awareness	-Enhances skills for healthy drivers

Positioning

CarFit

Helping Mature Drivers Find Their Safest Fit



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Car Fit Principles

- A clear line of sight over the steering wheel, it should be at least 3 inches above the top of the steering wheel.

- Plenty of room between breastbone (or chest) and the air bag in the steering wheel. The distance should be at least 10 inches to allow adequate room for the air bag to deploy.

- Properly adjusted head restraint. The center of the restraint should be about three inches or less from the center of the back of your head, not against your neck. This can help prevent neck injury.

Car Fit Principles

- Easy access to gas and brake pedals, complete depression of the brake and gas pedal.

- Seat belt with the lap belt placed low across hips, and the shoulder belt should cross mid-shoulder and across chest. A seat belt should never go behind your back or under your arm.

Medically-Based Assessment, Education and Referral

Program Type	Driver Screen	Clinical IADL Evaluation
Typical Providers and Credentials	-Health care professional (physician, social worker, neuropsychologist)	-Occupational Therapy Practitioner (generalist or DRS) -Other health professional degree with expertise in IADL's
Required Knowledge	-Medical conditions, assessment, referral, intervention processes -Understands the limits and value of assessment tools as a measurement of fitness to drive	-Medical conditions- implication for community mobility -Assess the cognitive, visual, perceptual, behavioral and physical limitations that may impact driving performance -Knowledge of available services -Understands the limits and value of assessment tools as a measurement of fitness to drive

Medically-Based Assessment, Education and Referral

Program Type	Driver Screen	Clinical IADL Evaluation
Typical Services Provided	-Counsel on risks associated with specific conditions -Investigate driving risk associated with changes in vision, cognition, and sensory motor function -Determine action for the at-risk driver- i.e. refer to IADL evaluation, driver rehab program or discuss driving cessation -Follow reporting/referral structure for licensing recommendations	-Evaluate and interpret risks associated with vision, cognition, and sensory-motor functions changes due to acute or chronic conditions -Facilitate remediation of deficits to advance readiness for driver rehab services -Develop an individualized transportation plan. -Document driver safety risk and recommend intervention plan to guide further action -Follow professional ethics on referrals to the driver licensing authority.
Outcome	Indicates risk or need for follow-up for medically at-risk drivers	

Specialized Evaluation and Training

Driver Rehabilitation Programs (Includes Driver Evaluation)	
Typical Provider Credentials	CDRS, OT-SCDCM
Required Provider's Knowledge	-Knowledge of medical conditions with implications to driving -Assesses cognitive, visual, perceptual, behavioral and physical limitation that may impact driving performance -Integrate clinical findings with assessment of on-road performance -Synthesizes client/caregiver needs and decisions about equipment and vehicle modifications -Coordinates multidisciplinary providers and resources

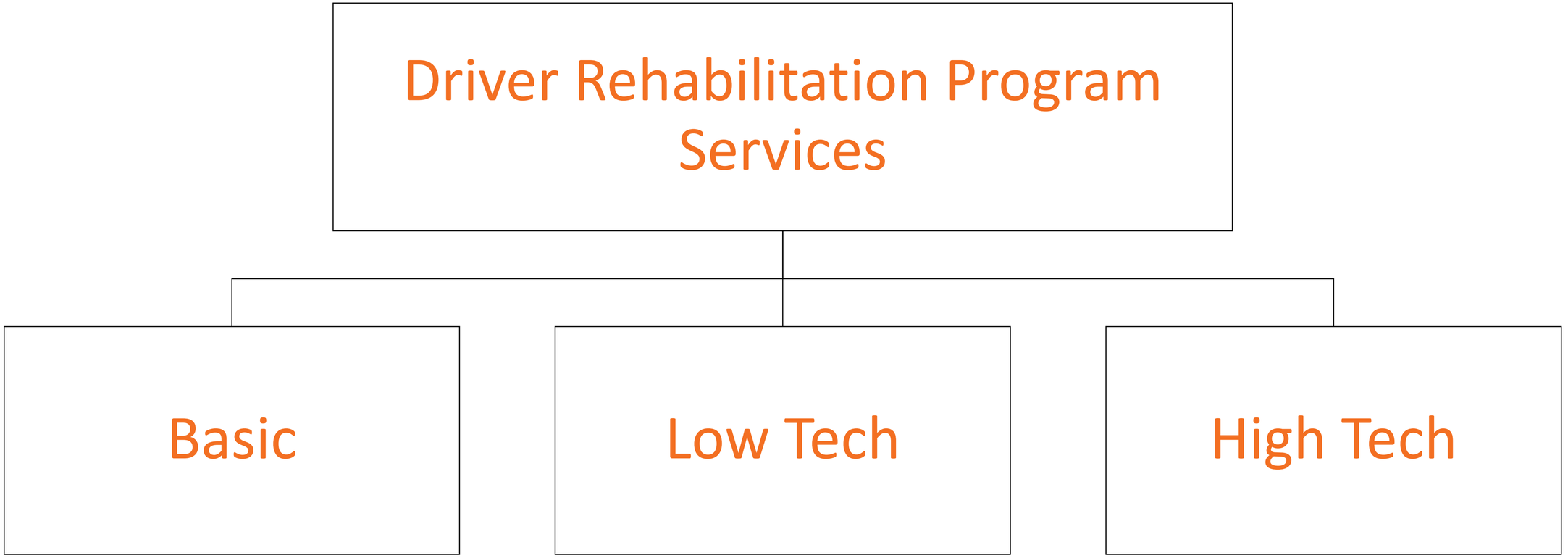
Specialized Evaluation and Training

Driver Rehabilitation Programs (Includes Driver Evaluation)	
Typical Services Provided	Complexity of evaluation, equipment, vehicles, and provider expertise vary with programs
	Navigate driver licenses compliance/eligibility through intake of driving & medical history
	Evaluate & interpret risks associated with changes in vision, cognition, and sensory-motor functions within the driving context
	Perform a comprehensive driving evaluation (clinical and on-road)
	Advise/counsel on evaluation results, provide resources, education/intervention plan
	Training with compensatory strategies, skills, and vehicle adaptations/modifications
	Advocate for access to funding
	Provide documentation about fitness to drive
	Collaborate with Mobility Equipment Dealers to prescribe equipment
	Present resources and options for continued community mobility if driving cessation

Identify differences between a Medically Based-Clinical IADL Evaluation

and

Specialized Driver Rehabilitation Program?


Driver Rehabilitation Program Services
Basic
Low Tech
High Tech

Driver Rehabilitations Programs: BASIC	
Typical Provider Credentials	-OT or other allied health profession -Professional team of CDRS/SCDCM with a licensed driving instructor
Program Services	Driver evaluations, training and education
Access to driver's position	Requires independent transfer into OEM driver's seat in vehicle
Vehicle Modifications: primary controls	Use OEM controls
Vehicle Modifications: secondary controls	Use OEM controls

Driver Rehabilitations Programs: LOW TECH	
Typical Provider Credentials	CDRS, OT-SCDCM, or in combination with an LDI **Certification is recommended*
Program Services	-Comprehensive driving evaluations, training and education -Consideration for adaptive driving aids, vehicle ingress/egress, mobility device storage/securement Primary control = mechanical Secondary controls = wireless or remote access
Access to driver's position	Address transfers, seating and position in OEM
Vehicle Modifications: primary controls	Mechanical gas/brake hand control Left foot accelerator pedal Pedal extensions Park brake level or electronic park brake Steering devices
Vehicle Modifications: secondary controls	Remote horn button or wiper control Turn signal modification Gear selector Key/ignition adaptations

Driver Rehabilitation Programs: HIGH TECH	
Typical Provider Credentials	CDRS, OT-SCDCM **Certification is recommended*
Program Services	-Comprehensive driving evaluations, training, and education -Can alter positioning of primary/secondary controls
Access to Driver's Position	-Adaptations to OEM driver's seat and/or driver position -Vehicle modifications; ramps, lifts, wheelchair securement systems
Vehicle Modifications: Primary Controls	-Powered gas/brake systems -Powered park brake integrated with powered gas/brake systems -Variable effort steering systems -Steering wheel adaptations/modifications -Reduced effort brake system
Vehicle Modifications: Secondary Controls	-Electronic systems to access secondary and accessory controls -Electronic interface with OEM electronics via panels, switches or touch pads -Wiring extension for OEM electronics -Powered transmission shifter

Electronic driving system for people with severe physical disabilities

Role of Driver Rehabilitation Team

Driver Rehabilitation Team

- Client
- Family member/support person
- Physician
- Specialists
- Evaluator- CDRS/DRP
- Driver Trainer/Educator
- Funding Source
- Mobility Equipment Dealer
- Manufacturer

DRIVER REHABILITATION EVALUATIONS AND TRAINING

Clinical Terms

- **Behind the wheel (BTW)** – performing driving maneuvers in a motor vehicle or with a simulator using typical or adaptive equipment for purposes of evaluation or instruction/training on public roads
- **Clinical (Assessment)** – Administering tests and examinations in a clinic. To differentiate this assessment from the BTW
- **Fitness to Drive (FTD)** – a description of a driver that demonstrates ability to control a vehicle while conforming to the rules of the road and obeys traffic laws
- **Mobility aid/device** – A manual or power wheelchair, scooter, or ambulation device (walker, crutches, cane) that facilitates indoor or outdoor personal mobility
- **WFL / WNL** – Within Functional Limits / Within Normal Limits

To best serve your driving clients needs you should follow ADED Best Practices

1. Obtain a clear picture of the medical history and current functional status.
2. Perform a behind the wheel evaluation if appropriate
3. Provide training if recommended
4. Provide a vehicle/equipment needs assessment
5. Provide a prescription/equipment recommendation
6. Perform a final vehicle fitting

Obtain a clear picture of the client:

Clinical Intake/History

Visual/Perceptual Assessment

Cognitive assessment

Physical Assessment

Vision Requirements

- Visual Acuity
- Visual Field
  - Central vision
  - Peripheral vision

Visual

Acuity:
Focusing abilities near vs Far acuity

- Testing: Snellen chart, Tumbling E, Keystone, Optec
- Driving Errors: Unable to locate signage or traffic signals/ Read Signage; Unable to see speedometer; Often reacts suddenly; Difficulty maintaining lane position on road without a center line

Oculomotor: eye movement

- Testing: Convergence/divergence, ROM, Cover test, Pursuits/Saccades
- Driving errors: Unable to move eyes to speedometer

Visual Field: What is seen at any given moment

- Testing: UFOV, Optec, Confrontation Testing
- Driving Errors: If they exhibit adequate scanning skills may drive, Difficulties with lane position- especially on interstate, Missing information

Depth Perception
The ability of the two eyes to fixate simultaneously so that the images received by each eye can be fused into a single picture

- Testing: Optec Randot
- Driving Errors: Poor distance judgments; Difficulty Parking/Misjudge position; Difficulty with following distance

Night Vision: The ability to see in low light

- Testing: Glare recovery; Contrast sensitivity; Optec
- Driving Errors: Difficulty driving at night; Difficulty adjusting from light to dark; Glare can be blinding.

Color Vision:
Most authorities discount the importance of color perception. Colorblind clients learn to read traffic signals by position, form, intensity, and by watching traffic

- Testing: Optec
- Driving Errors: Can likely drive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Visual Perceptual Skills

- Visual Discrimination
- Visual Memory
- Visual Spatial Relationships
- Visual Form Constancy

Visual Sequential Memory

Visual Figure Ground

Visual Closure

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Cognition

Attention:
Selective, Sustained, Alternating, divided, neglect

- Testing: Clinical observation, Medication review
- Driving Errors: Difficulty talking and driving, Difficulty following a map May miss important information on road, Easily distracted

Memory:
Short-term, Working, Episodic, Semantic, Procedural, Prospective.

- Testing: Memory test
- Driving Errors: Getting lost

Executive function:
Complex cognitive processing requiring coordination of several sub processes like problem solving and judgement., includes impulse control

- Testing: Trails B, Clock drawing, Digit symbol modalities test, maze test, letter /number cancellation test
- Driving Errors: Difficulty initiating; Impaired decision making; Difficulty problem solving; Difficulty planning/sequencing /anticipating; Problems with generating alternative solutions; Impulsivity; Does not benefit from feedback

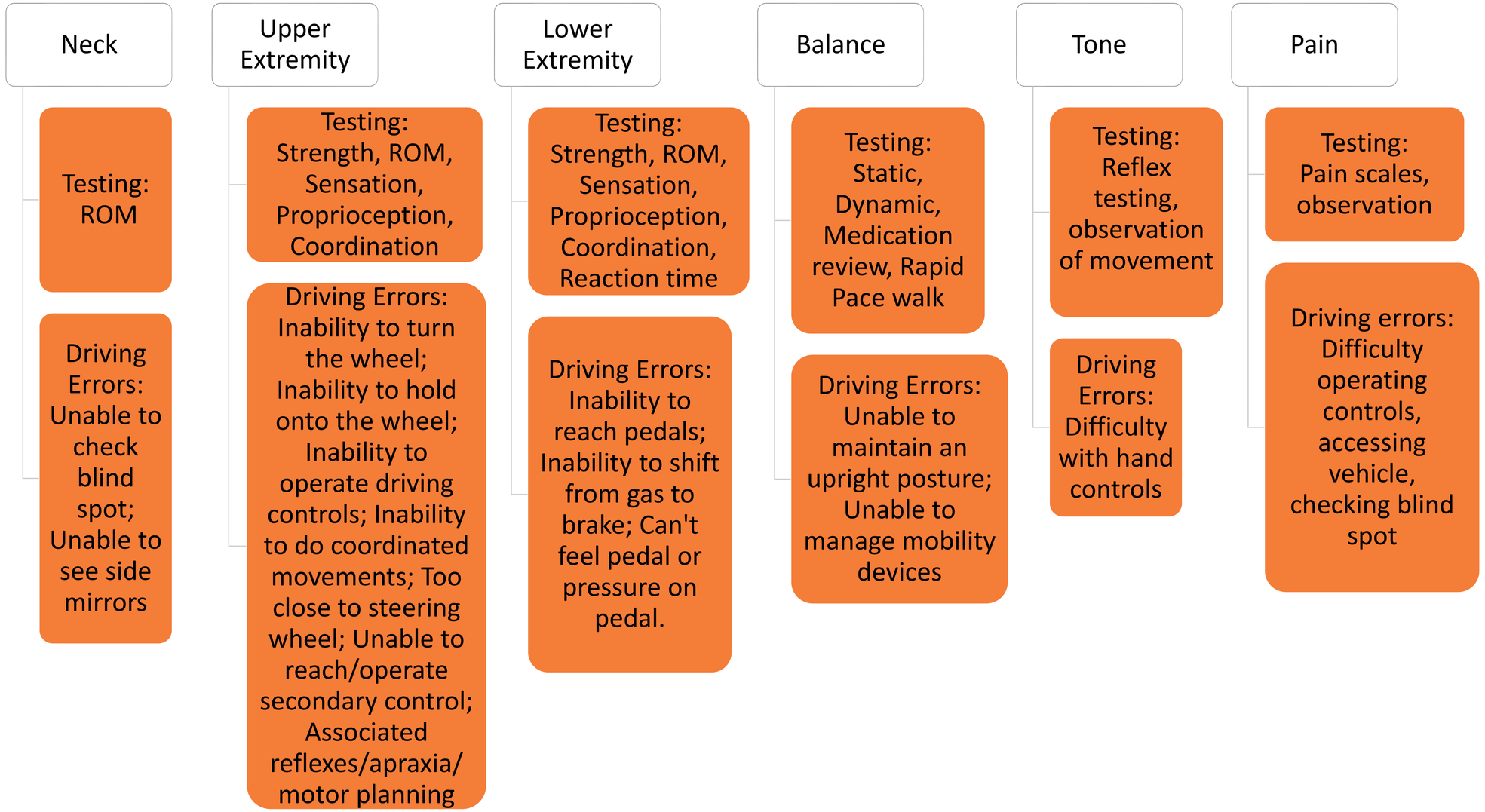
Visual perceptual skills:
(Includes visual motor)
Analyze interpret and make use of the visual information, Ability to integrate with fine motor movements Including processing speed

- Testing: Design Copy, Draw a Clock, Dynavision, Vision Coach, BITS
- Driving Errors: Tends to drift to one side; Lack of coordination; Hitting curbs; Stopping too far/too close; Poor self-directed navigation (Driver must use visual scanning, divided attention, planning, judgment skills); Difficulty accurately judging or predicting Gap distance; Difficulty judging speed and distance of other cars

Insight and awareness

- Testing Verbal denial, Underestimate severity of deficit, Fail to make accommodation
- Driving Errors: Does not voluntarily limit/change driving

Physical


Neck
Testing: ROM
Driving Errors: Unable to check blind spot; Unable to see side mirrors
Upper Extremity
Testing: Strength, ROM, Sensation, Proprioception, Coordination
Driving Errors: Inability to turn the wheel; Inability to hold onto the wheel; Inability to operate driving controls; Inability to do coordinated movements; Too close to steering wheel; Unable to reach/operate secondary control; Associated reflexes/apraxia/ motor planning
Lower Extremity
Testing: Strength, ROM, Sensation, Proprioception, Coordination, Reaction time
Driving Errors: Inability to reach pedals; Inability to shift from gas to brake; Can't feel pedal or pressure on pedal.
Balance
Testing: Static, Dynamic, Medication review, Rapid Pace walk
Driving Errors: Unable to maintain an upright posture; Unable to manage mobility devices
Tone
Testing: Reflex testing, observation of movement
Driving Errors: Difficulty with hand controls
Pain
Testing: Pain scales, observation
Driving errors: Difficulty operating controls, accessing vehicle, checking blind spot

Behavioral Skills

- Patience
- Self Control
- Cooperation
- Emotional Maturity
- Conflict Management
- Socially Responsible
- Anger Management
- Stress Management
- Social skills in the teaching environment

DRIVING SIMULATORS:

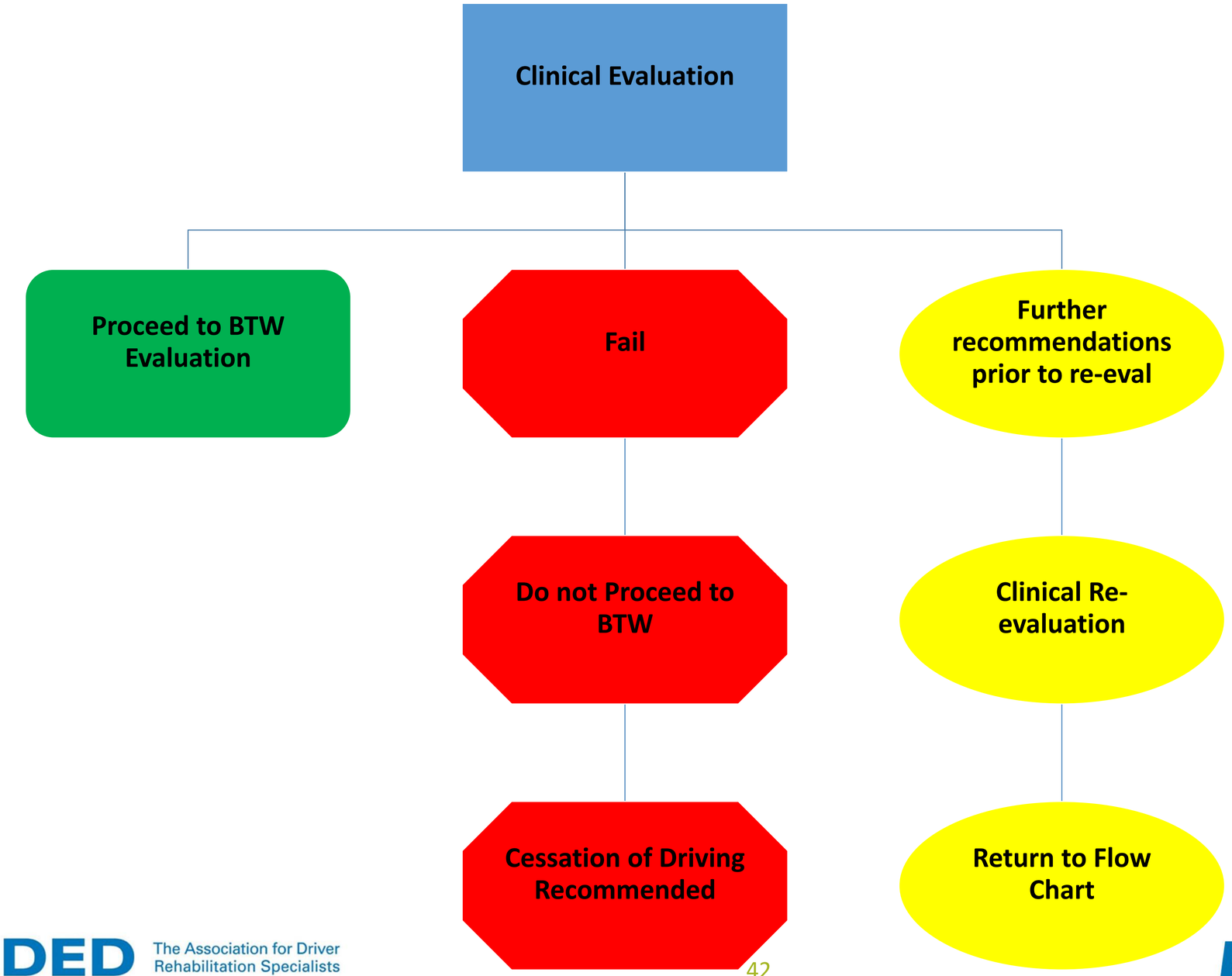
Is there a place for them in the behind the wheel evaluation and training ?

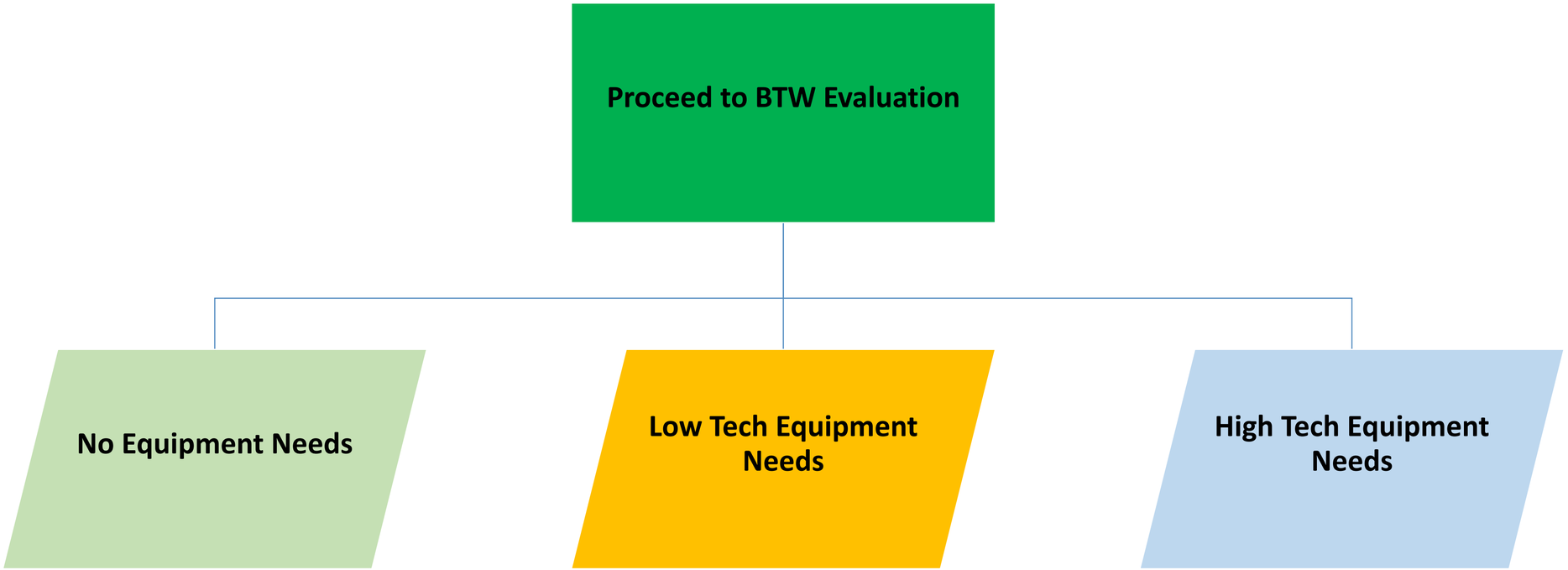
Types of Simulators

Factors to consider

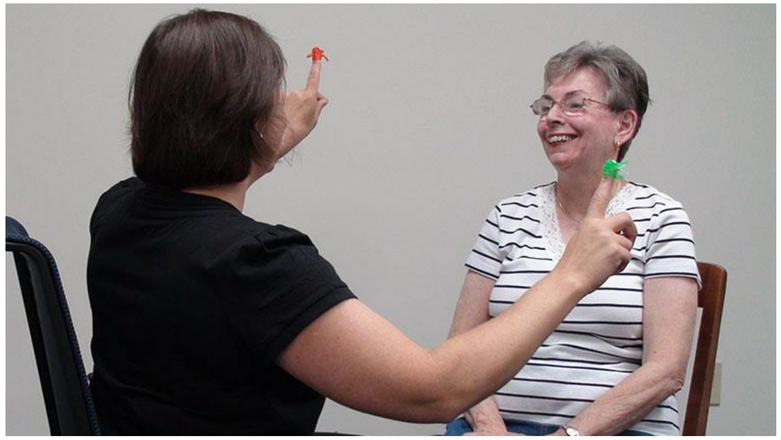
- Available programs
- Immersion
- Types of graphics
- Motion feedback
- Simulator Adaptation Syndrome


Highway Driving Simulator
Office of Safety R&D
Turner-Fairbank Highway Research Center


Clinical Evaluation
Proceed to BTW Evaluation
Fail
Further recommendations prior to re-eval
Do not Proceed to BTW
Clinical Re-evaluation
Cessation of Driving Recommended
Return to Flow Chart


Proceed to BTW Evaluation
No Equipment Needs
Low Tech Equipment Needs
High Tech Equipment Needs

Connecting Clinical Deficits



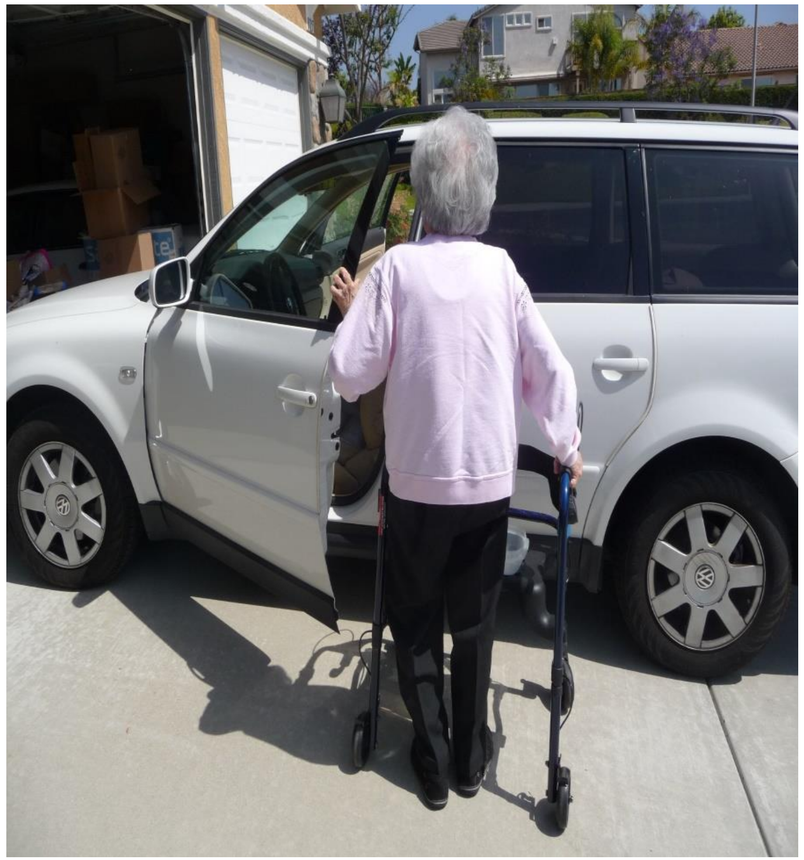
Behind the wheel (BTW) evaluation

- No single, uniform, widely used, or agreed upon on-road driving assessment exists.
- The outcome of behind the wheel assessments (pass/fail) is determined by the subjective judgment of the evaluator, not by a quantifiable driving score.
- The on-road assessment is considered to be the gold standard for assessing driving safety.

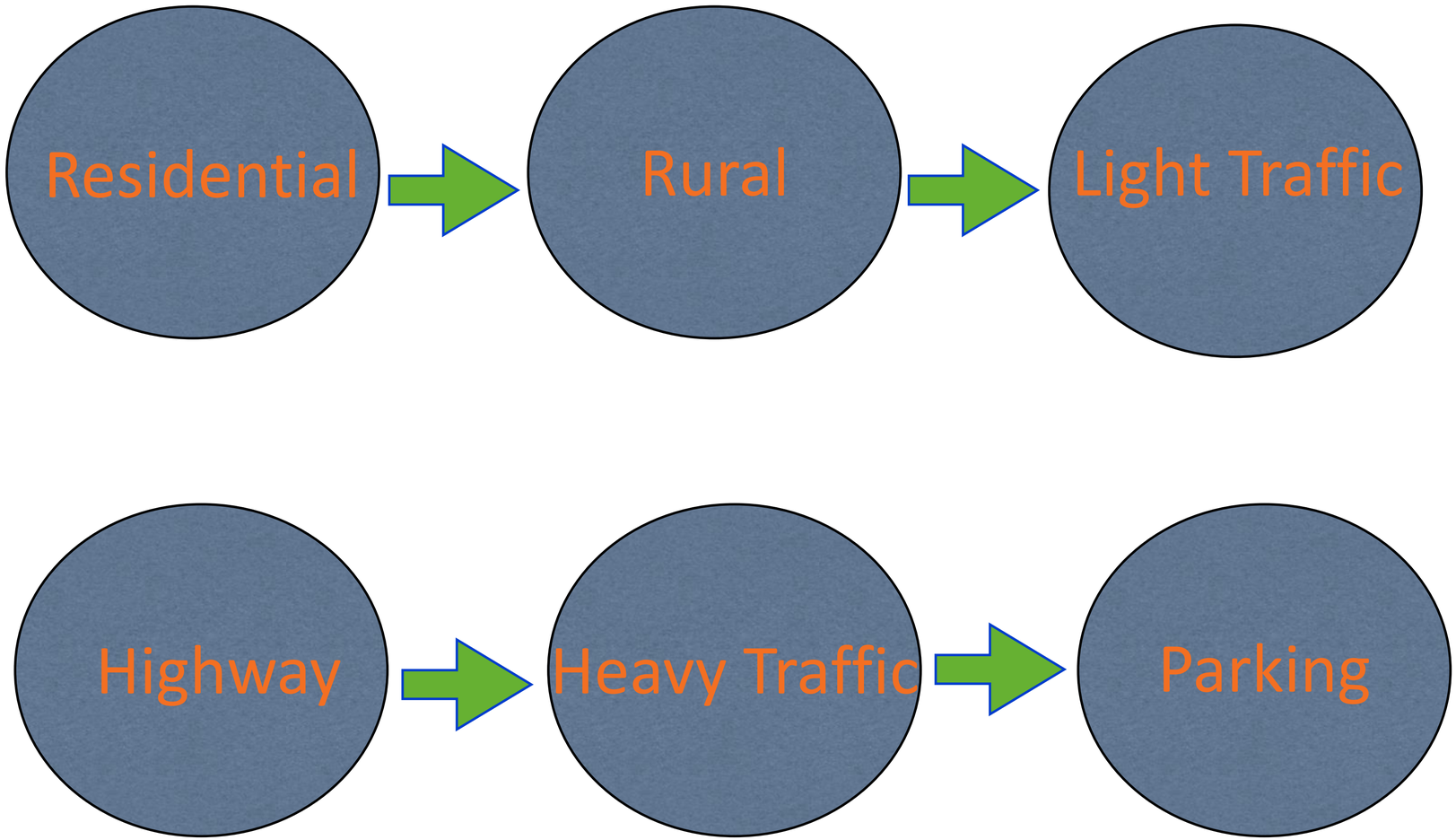
BTW Evaluation

- Licensing agencies place a major focus on testing the operational and tactical driving skills, i.e., going through the motions
- Medical BTW are more comprehensive, focusing on operational, tactical and strategic behaviors
- Considerations/recommendations based on performance as well as disease process

When does the BTW evaluation start?



Assess driving performance in progressively complex traffic/roadway conditions and weather similar to clients driving environment


Residential
Rural
Light Traffic
Highway
Heavy Traffic
Parking

Additional Considerations

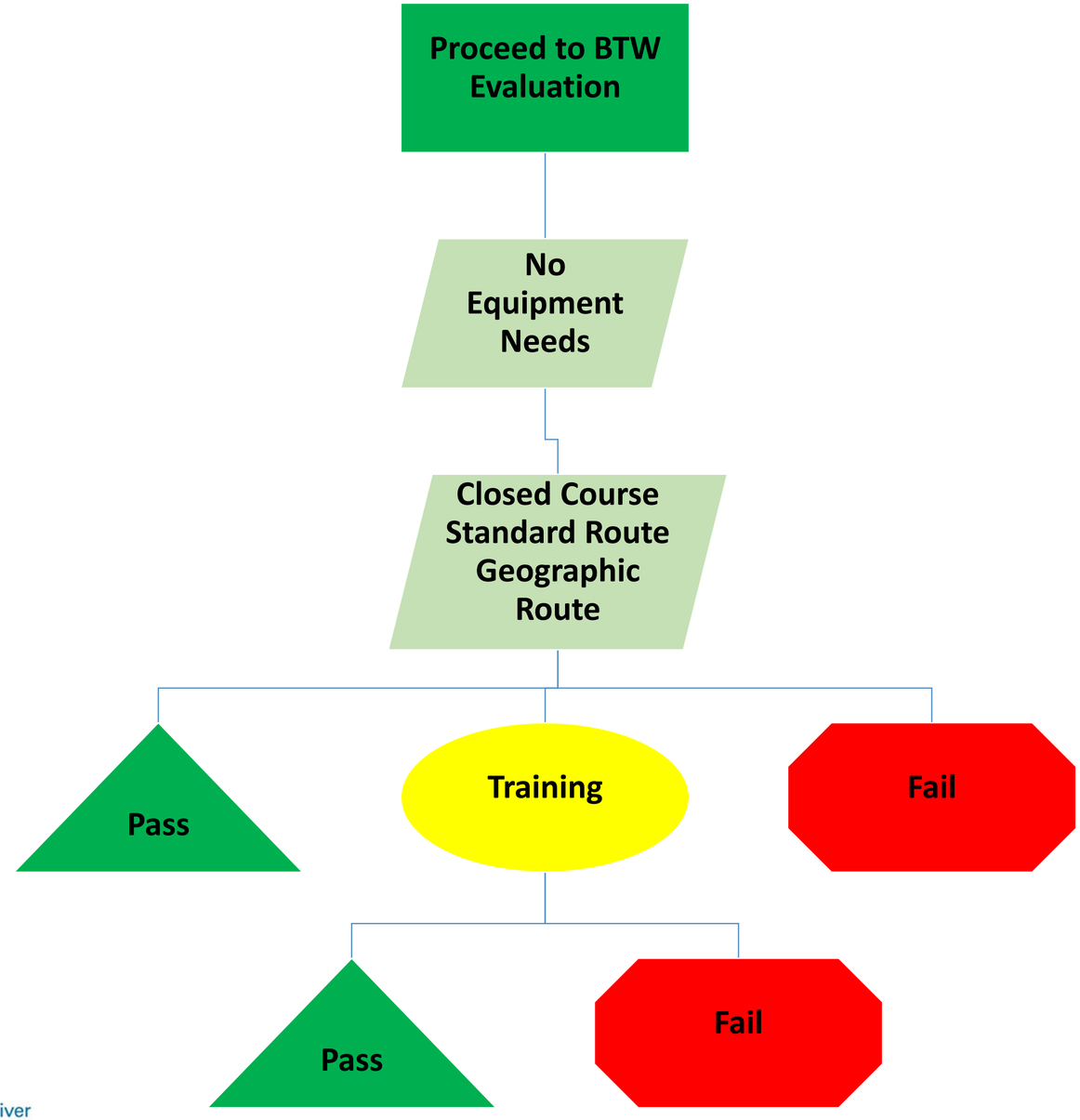
- Diagnosis
- Driving Experience
- Test Anxiety
- Bad Driving Habits

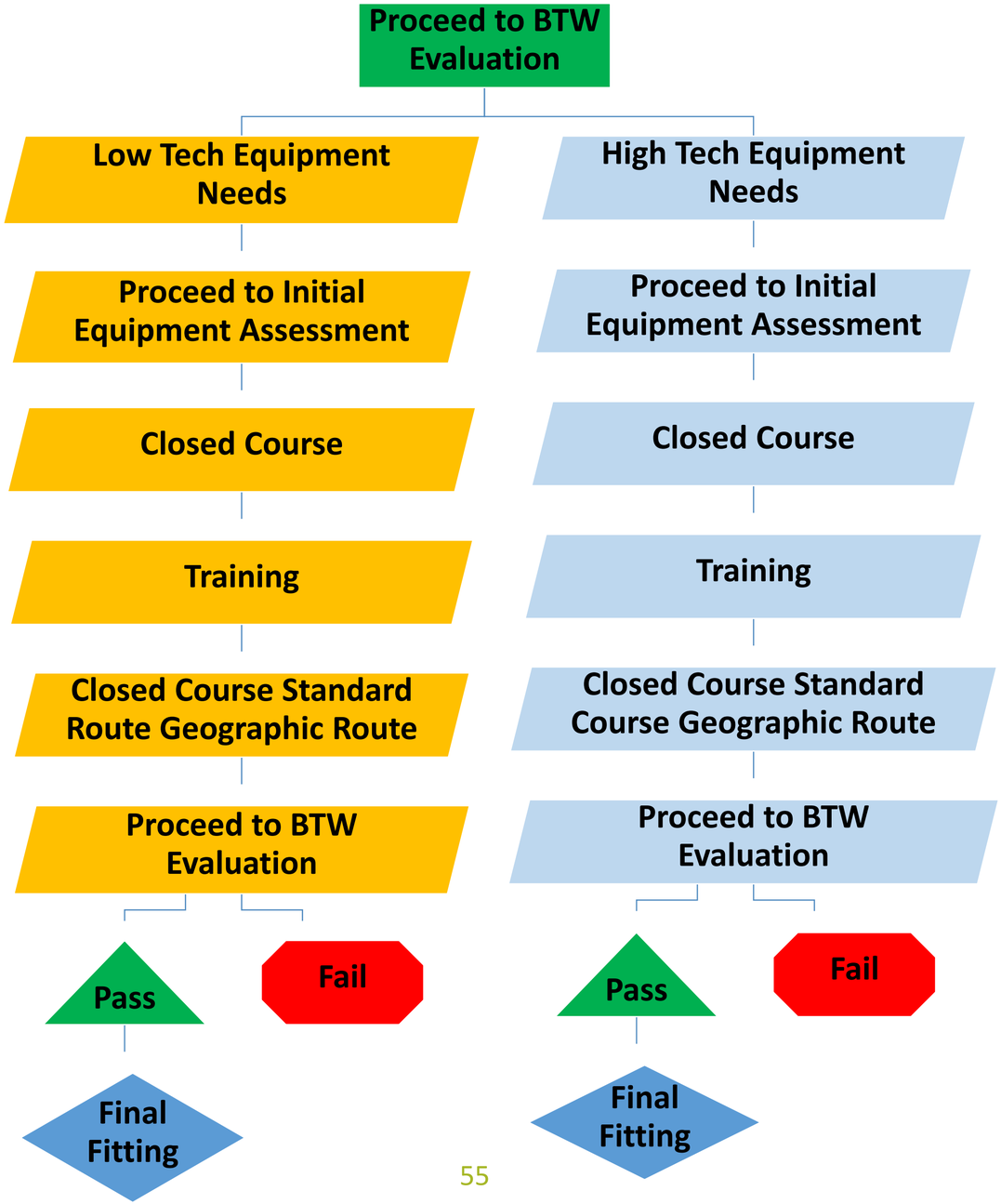
BTW Results and Recommendations:

- Present the Final Recommendations
- Inclusion of Significant Others in the Decision
- Interacting With State Regulatory Agencies

Recommendations

- Return to Driving without Restriction
- Return to Driving with Restriction
- Driver Training or Driver Education
- Further Evaluation
- Driving not Appropriate


Proceed to BTW Evaluation
No Equipment Needs
Closed Course Standard Route Geographic Route
Pass
Training
Fail
Pass
Fail


Proceed to BTW Evaluation
Low Tech Equipment Needs
Proceed to Initial Equipment Assessment
Closed Course
Training
Closed Course Standard Route Geographic Route
Proceed to BTW Evaluation
Pass
Fail
Final Fitting
High Tech Equipment Needs
Proceed to Initial Equipment Assessment
Closed Course
Training
Closed Course Standard Course Geographic Route
Proceed to BTW Evaluation
Pass
Fail
Final Fitting

Follow up recommendations

When a deficit or problem is documented in a report, a means of addressing that deficit should be recommended.

Driver Assessment Determines:

- Strengths/limitations
- Deficits/problem areas
- Adaptive equipment needs
- Learning style
- Attitude/insight
- Knowledge of driving task
- Need for follow-up services

Purpose of Driver Training:

- Teach new skills
- Correct bad habits
- Learn adaptive equipment
- Teach compensatory techniques
- Prepare for driver license exam

Drivers Training

- Non-specialized driving schools
- CDRS/Driver Rehabilitation driving programs

Driving Instructors

- Should be Licensed
- State Dept. of Education
  (Secondary Schools)
- Department of Public Safety, Etc.
  (Commercial Driving Schools)
- Specialized Training
  - Low Vision/Bioptics
  - High Tech Equipment
  - New Drivers / Autism / Learning Differences
  - VA Driver Training Instructor Course

New Drivers

Training

- Provide adequate off-road experience
- Allow extra time for set-up, securement, etc.
- May progress slowly
- Determine if they have the skills to obtain driving license

Experienced Drivers

Training

- Use a lot of off-road experience to build control skills
- Stress compensatory techniques
- Correct bad habits
- May learn new skills more easily
- Polling question? What is the most common driving error?

Training without adaptive equipment

- Practice skills from simple to more complex
- Address problematic skill areas-repeatedly
- Teach safe and defensive habits
- Teach individual skills that were assessed as inadequate
- Difference between simple and complex routes

Training with adaptive equipment

Use an instructor with the best training/credentials and experience with that type of driver and equipment

Allow variable time to acquire competency with each skill

Consider and try out various equipment solutions

Explore if other drivers will use the vehicle and what equipment to recommend

The Prescription Check Out/Final Fitting

Purpose of inspection

- Compare recommended equipment to installed equipment
- Check to see if client can use recommended equipment safely and efficiently

Follow up activities:

- Driver Education/Training
- Driver Improvement Courses
- Driver License restrictions
- Endorsement for Disability
- Alternatives to driving
- Accessing community resources
- Driving cessation
- Telemedicine

Module 4
Ongoing Driver Evaluation

Purpose: To be able to evaluate a driver when teaching BTW lessons.

Sections

- Types and characteristics of in-vehicle evaluation
- How to evaluate the driver
- Providing feedback to the driver

Module Objectives

- By the end of this Module, you will be able to:
  - Describe the various types of in-vehicle evaluation.
  - Describe acceptable criteria for rating a driver's performance.
  - Describe how evaluation takes place and what can be evaluated in the vehicle.
  - Demonstrate how to provide feedback on the driver's performance.

Types of In-vehicle Evaluation

1. Initial evaluation: what is the student bringing to this lesson, what have they retained/incorporated from the last lesson?
2. On-going evaluation each time a driver drives.
3. Guided self-evaluation by the student.
4. Summative evaluation at the end of the in-vehicle phase.

Characteristics of Initial Evaluation

- Determine what the student has learned up to that point.
- Look at previous BTW lesson evaluations.
- Ask the student what they are having difficulties with.
- Ask short questions to gauge their understanding.

Characteristics of the On-Going Evaluation

- Occurs each time a driver drives.
- Requires immediate and appropriate feedback from the instructor.
- Instructors must specifically identify the “mistakes” a driver makes.

Characteristics of the On-Going Evaluation

- Mistakes must be corrected.
  - through use of words.
  - through use of visual aids.
  - through the use of demonstration.
- Provide praise and other positive re-enforcements when necessary.
- Written on the individual driver's in-vehicle record.

Characteristics of Guided Self-Evaluation by the Student

- Formal attempt to evaluate their own driving performance.
- Ensure that students recognize their responsibility for continual self-appraisal during the years of future driving.
- Students will evaluate their own performance after driving established route.
- Can take the form of brief commentaries which include their most important actions.

Characteristics of Guided Self-Evaluation by the Student

- Share with the students (parents) skills they need to practice with their parents before the next lesson.

- Have the students record their evaluation for further assessment by the instructor and student.

- Instructor should avoid imposing their own evaluation before allowing students to do so.

Characteristics of Summative Evaluation

- Evaluate student learning at the end of an instructional unit by comparing it against a standard or benchmark.
- Cumulative evaluations used to measure student growth after instruction.
- Include a clear alignment between assessment, curriculum, and instruction.
- Includes end of unit in-vehicle evaluations and course grades.

Measurements Obtained When Evaluating Drivers

- The driver's skills at maneuvering the car.
- The driver's speed choices.
- The driver's ability to understand the information presented by the roadway (signs, lines, traffic lights).
- The driver's understanding of the rules of the road.

Measurements Obtained When Evaluating Drivers

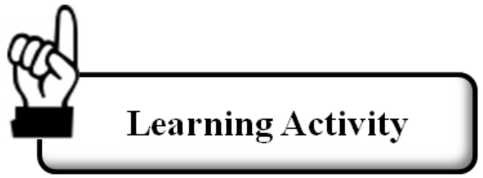
- The driver's ability to see, identify & interact with other road users.
- The driver's searching skills and their ability to identify and avoid situations that are likely to produce a collision.
- The driver's management of space and time.

What Evaluations Can Determine?

- Where this student is on the learning progression.
- What the next step in the learning process is for this student.
- If the lesson is achieving the intended learning outcomes. If not, what is the cause and what might remediate this?

What Evaluations Can Determine?

- Identify the cause, leading to the weakness and focus on correcting that behavior.
- Which drivers are most successful in responding to hazardous traffic situations.
- The driver's strengths and weaknesses based on positive feedback to meet their goals.



Activity #1: Types and Characteristics of In-vehicle Evaluation

Fill in the correct answer for each question on types and characteristics of in-vehicle evaluation

Identifying a Driver's Performance Reliably

- Identify objectives and content that will influence a driver's behaviors.
- Be completely familiar with the objectives and the behaviors the student will demonstrate during the lesson.
- Identify what driver's do and how they control the car.

Identifying a Driver's Performance Reliably

- Set criteria for acceptable performance as established in the lesson plan objectives.
- Prescribe a rating method/route.
- Evaluate the driver while driving.

What to Do When Evaluating the Driver

- Observe the driver behaviors closely and carefully.
- Observe the change in traffic situations and conditions.
- Rate the driver after the performance.
- Record the rating in writing.

The Process for Driver Evaluation

- Create an evaluation route which will present environments & situations to be evaluated.
- Direct the driver over the route.
- Observe the road environment & all other road users.
- Anticipate potential issues on the roadway well in advance.
- Observe the vehicle behavior.

The Process for Driver Evaluation

- Assess what information the driver is acquiring & when they are getting it & compare this to the information they need to acquire to drive safely.
- Assess how successful the driver is in their making decisions and the consistency of this process.
- Assess the effectiveness of the driver in implementing the decisions.
- Ensure the safe operation of the vehicle at all times.
- Record the observations.

Various Factors that Influence a Driver's Performance

- Existing risks
- Potential risks
- Environmental conditions
- Traffic volume
- The type of roadway
- The speed of traffic

Factors that Influence Objectivity of Evaluations

- Giving the directions as planned
- Rating the driver's performance on what was observed
- Avoid any pet peeves that you may have
- Avoid any critical comments during the evaluation process

Driver Actions to Evaluate

- **Searching** – is the student driver searching ahead, to the sides and behind and making frequent eye movements?

- **Speed control** – is the student driver obeying the speed limit, driving at a speed suitable for conditions, slowing down and speeding up at the correct times?

Driver Actions to Evaluate

- **Direction Control** – is the student driver in the proper lane position, selecting the correct lane, maneuvering turns and curves correctly and using proper lane change procedures, keeping the vehicle in balance?

- **Timing and Space Control** - is the student driver using proper gap selection, using the proper following distance and maintaining proper space ahead, to the sides and behind?

How Drivers Can Take Actions

- Gradual or smooth.
- Anticipate or make an early response.
- Delay or make a late response.
- NO RESPONSE AT ALL
- Sudden, abrupt or spontaneous response.
- Erratic responses either incidentally or continually.

The Cause of Driver Actions

- The time/distance available to judge.
- Time/distance available to take the action once the decision to act has occurred.
- The number of tasks that must be performed.

Internal Factors

- What the driver knows (about reading the roadway information & where & how to get this information)
- The ability to look for other road users
- The ability to acquire & prioritize information
- The ability to acquire information sufficiently early to allow time for decision making and implementation.
- Internal distractors
- Risk perception
- Risk acceptance

External Factors

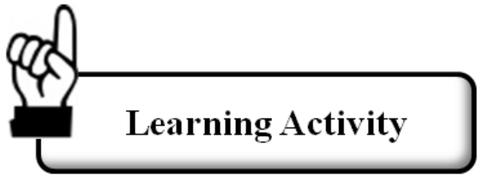
- The quantity of information available
- The quality of the information available
- The complexity of the environment
- External distractors

Acceptable Criteria for Rating a Driver's Performance

- Decreasing risk by searching, adjusting speed or direction.
- Not causing another driver to change speed and/or direction.
- Reporting what was observed about the driver's behaviors.
- Complying with traffic laws.

Unacceptable Criteria for Rating a Driver's Performance

- You "feel comfortable."
- The driver does what you do.
- You become frightened.
- You compare one driver to another driver. Would you feel comfortable with the student driving towards you in another vehicle?



Activity #2: How to Evaluate the Driver

Fill in the correct answer for each question on how to evaluate the driver.

Providing Feedback to a Driver

- Be done in a systematic way related to the objectives of the lesson/environment.
- Relate to judgment and/or performance in searching, speed control, direction control, and timing/decision-making skills.
- Be done immediately if mistake are being made, such as:
  - Wrong actions or inactions.
  - Wrong judgments or decisions.

Providing Feedback to a Driver

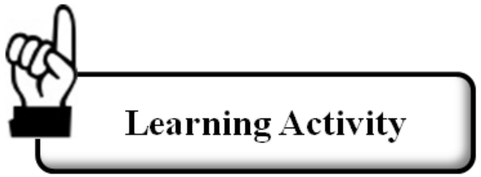
- Communicated in a clear & concise manner
- Remedial suggestions relevant to the driver's abilities should be outlined
- Provide reasons why this individual would find it helpful to work to implement these suggestions.

Record Keeping

- Keep records of the driving performance of each student during each in-vehicle period.
- Should indicate the:
  - lesson objectives
  - the content practiced
  - an evaluation of the student's performance and progress
  - suggestions for what should be covered in subsequent practice periods.
- An accurate record of the student's past performance encourages the instructor to design each in-vehicle practice in relation to needed skills and objectives.

Module Summary

- With the conclusion of this Module, you should be able to:
  - Describe the various types of in-vehicle evaluation.
  - Describe acceptable criteria for rating a driver's performance.
  - Describe how evaluation takes place and what can be evaluated in the vehicle.
  - Describe how to provide feedback on the driver's performance.



Module Review Activity: Key Words Matchup

Complete the Activity in the Participant Workbook.

PW page 4-21

Questions and Answers

- Name the types of in-vehicle evaluation.
- What measurements can be obtained when evaluating drivers?
- How can you identify a driver's performance reliably?
- What factors will influence the objectively of evaluations?

Questions?

Module 2
Managing the Mobile Classroom

Purpose of the Module

To teach you how to manage the behind-the-wheel portion of a driver education class through:

- proper procedures for giving directions,
- how to use instructor mirrors;
- dealing with challenges during in-vehicle instruction,
- when to change drivers; and
- observer responsibilities.

Module Sections

This module will cover five topics:

- Preparing to drive
- Giving directions
- How to use instructor mirrors during in-vehicle training
- Challenges to in-vehicle training
- Changing drivers and observer responsibilities

Module Objectives

By the end of this Module, you will be able to:

- Describe the vehicle and occupant safety checks necessary in preparing for a lesson.
- Describe how to give directions that are simple and understandable.
- Explain how to manage multiple tasks while conducting behind-the-wheel instruction and manage distractions.
- Describe proper locations to change drivers on street.
- Describe the proper driver rotation process.

Procedures for Teaching an In-vehicle Lesson

1. Check the student's permit/license, if required.
   - Is the license/permit valid?
   - What are the restrictions?
   - When does it expire?
   - Address issues on student health/medical form.

Procedures for Teaching an In-vehicle Lesson

2. Select a first driver based either on skill level or student rotation, if applicable.
   - Is the student capable of driving the vehicle to the desired environment?

Procedures for Teaching an In-vehicle Lesson

3. Begin the in-vehicle lesson procedure with a lesson overview while standing outside the vehicle.
   - State the lesson objectives (relate to classroom lesson).
   - Provide quick review of session.
   - Type of traffic environment.
   - General description of route.
   - Explain the benefits of the lesson.
   - Explain observer activities sheets.

Procedures for Teaching an In-vehicle Lesson

4. Seated in the proper position to instruct the lesson.
   - Body should be positioned towards driver.
   - Right leg should be able to reach instructor's pedal.
   - Left hand should be used as a brace or to take emergency action.

Question

Explain the importance of the instructor's seating position?

Procedures for Teaching an In-vehicle Lesson

5. Check the dual instructor brake before beginning the lesson.
   - Is the safety pin disengaged?
   - Is the cable in good condition?
   - When the vehicle is moving will it stop the vehicle?

Procedures for Teaching an In-vehicle Lesson

6. If the vehicle has a center pull emergency brake, does it work?
   - Used only as a back up to the instructor's brake.
   - Can cause rear wheel lock if used improperly.

Procedures for Teaching an In-vehicle Lesson

7. Set the instructor's mirrors.
   - Make sure they will not block driver's vision.
   - Eye check mirror should be placed on the windshield where the instructor can see the student's eye movements.

Guidelines for Giving Directions

- Always begin the lesson with a lesson overview and a general description of the route.
- Directions influence the driver's performance and evaluation results by:
  - What is said to the driver.
  - How it is said.
  - Where or when it is said.

Guidelines for Giving Directions

- Write out the directions to negotiate a route.
- Verbalize directions slowly.
- Talk loudly.
- Identify where/when directions should be given.

Guidelines for Giving Directions

Directions must be:

- Short and concise.
  - Avoid giving directions for two maneuvers at the same time.
- Easy to state and remember.
- Easy to understand and follow.
- Consistent, stated in the same form

Guidelines for Giving Directions

- Consciously plan the directions.
- Select a safe time and location.
- Get the drivers attention.
- Check for understanding once the directions are given.

Techniques to Ensure the Driver Will Follow Directions

Anticipate which drivers may have or are going to have problems. Such as:

- Searching
- Steering too much or too little
- Braking too much or not enough
- Accelerating too much or not enough
- Prematurely performing the directions
- Delaying in performing the direction

Techniques to Ensure the Driver Will Follow Directions

- Remind the students to listen carefully to the directions.
- Repeat the directions.
- Students may be nervous and may have difficulties in determining left from right when receiving directions.
- When giving direction you can also point in the direction you want the student to turn.

Guidelines for Giving Directions

- Never give more than two directions at one time. Break it down in 1 or 2 segments as you drive
- Directions should be stated in two parts.
  - First, say “Where” you want the maneuver done, then, say “What” you want the driver to do.

1. At the traffic signal
2. Turn right

Guidelines for Giving Directions

- Use specific terms when giving directions.
  - Avoid using street names
- You may use highway markers.
  - State the route number.
  - State the direction of travel (North, South, West, East) only if needed.
  - State the major city in either direction.

Guidelines for Giving Directions

- Use designations such as:
  - Next intersection
  - Next controlled intersection
  - First crossroad
  - Next stop sign
  - Next traffic signal
  - Second traffic signal
  - Following street
  - End of road

Guidelines for Giving Directions

- Directions should be started with a prepositional phrase such as:
  - “At the…” (Where the location is visible)
  - “Go to the …” (When the location is visible)
  - “Continue to the …” (When the location is not visible)

Guidelines for Giving Directions

- Avoid double –meaning or confusing words such as:
  - Right – say correct

Avoid Double-meaning Words “Right?”

Guidelines for Giving Directions

- Avoid double –meaning or confusing words such as:
  - Right – say correct
  - Straight – say ahead or forward
  - Red light – traffic signal
  - Slang – for the action you want: “step on it, OK.”
  - Improper phrases: “right hand turn,” “left hand turn.”
  - Curve vs a Turn

Guidelines for Giving Directions

- Talk loudly and clearly to the driver.
- Talk at a normal talking rate.
- Pause between the “where/when” and the “what” components.
- If you have a long distance to go, use a standard phrase such as “continue ahead until I give you further directions.”

When/Where to Give Directions

- Use a location that is easy to remember.
- Physical landmarks that don't change.
- Give the direction as soon as the driver has completed the last direction.
- Time directions to coordinate with the needed action.

When/Where to Give Directions

- Give well in advance.
- May be necessary to repeat the direction.
- Know the route and area of instruction well.
- Have a plan B if a turn is missed or needs to be aborted.

When/Where to Give Directions

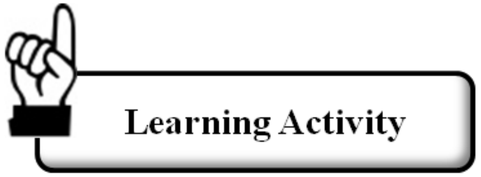
- Use a cue that is obvious and will not change over time.
- Avoid giving directions when the driver:
  - Is busy performing a maneuver.
  - Needs to be attentive to environment or traffic conditions.

When/Where to Give Directions

- Factors to consider where giving directions.
  - The terrain (hills, curves, etc.)
  - Roadway configuration (curves,
  - Existing hazards that reduce
  - The speed of the vehicle
  - The volume and speed of other traffic
  - Roadway signs and signals
  - Types of roadway and environments
  - Sightlines

Summary of Giving Directions

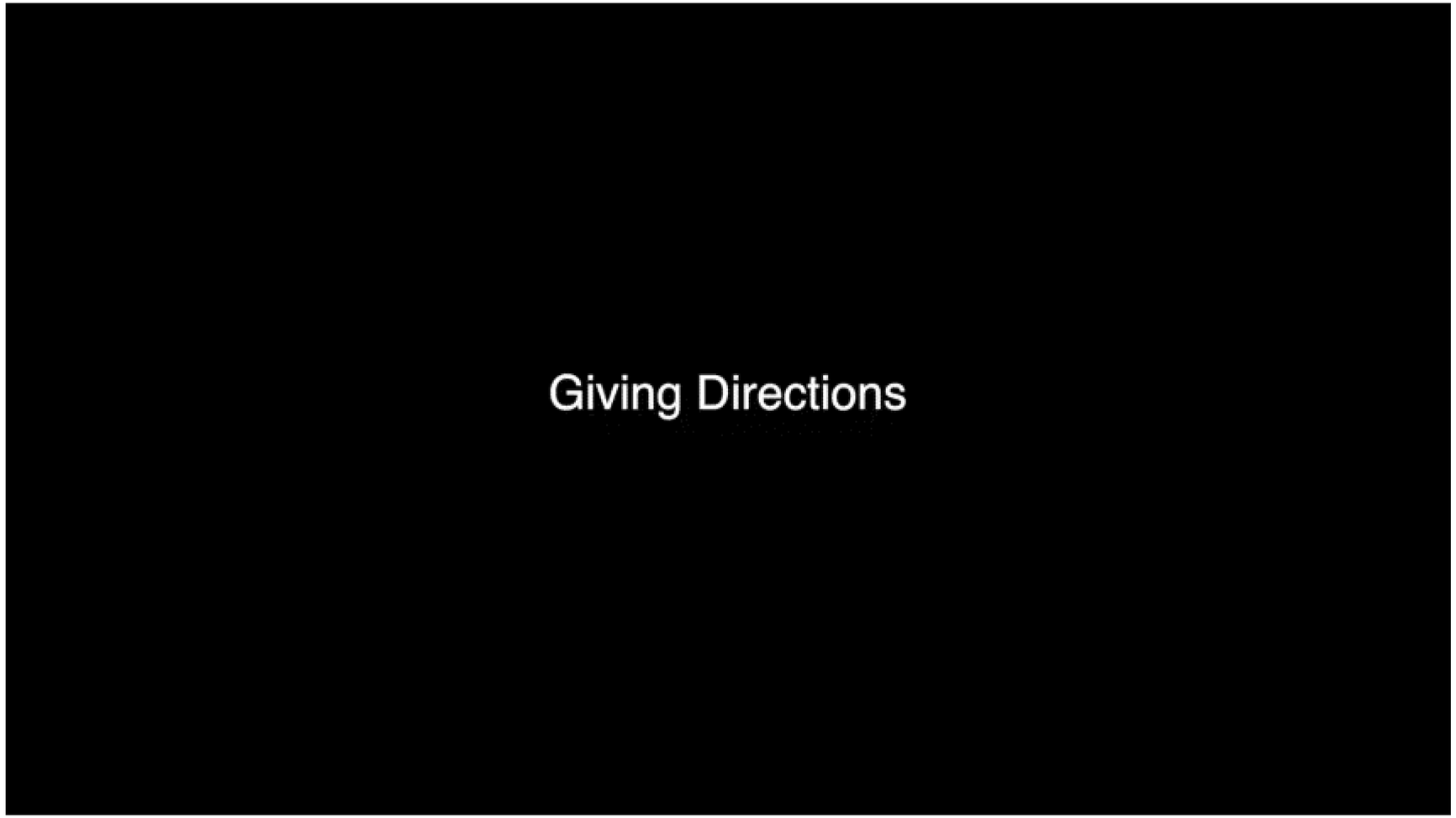
- The same for every driver.
- Short/concise.
- Easy to state and remember.
- Easy to understand and follow.
- Same style and similar content.
- “Where” first, then “what”.
- Given clearly and early.
- Timed for repeat if necessary.
- Timed so not to overload the driver.



Activity #1: Giving Directions

Review slides and demonstrate how to give directions for the various scenarios.


FARMERS
TYE CART



Putting them together

Instructor’s Rearview Mirror

- Fastened on the inside of the windshield with suction cups.
- Positioned so that the instructor can see to the rear of the vehicle with a quick glance.

Instructor's Eye Mirror

- Typically a 2 ½" by 6" flat mirror.
- Flat mirror glass used.
- Choose one of good quality with a suction base and a swivel joint which allows for degrees of rotation.

Instructor's Eye Mirror

- Fastened to the windshield in a position where the instructor can see the student's eye movements.
- Allows the instructor to see at a glance where the student is looking and where the student is searching and tracking.

Instructor's Eye Mirror

- Easily detects:
  - A fixed stare
  - Failure to check blind spots before moving to a new lane
  - Failure to check to the rear before slowing down
- Allows the instructor to coach the student until the correct habits are in place.
- The mirror should be a flat mirror.

Instructor's Eye Mirror

- Ideally should be positioned low on the windshield to not block the driver's sightline.
- But high enough that the driver's hands on the wheel will not obstruct the instructor's view.
- Typically placed on or slightly left of the center of the windshield.

Instructor's Eye Mirror

- Windshield must be clean to ensure the suction is sufficient.
- The mirror may need to be reattached twice a year.

Steps to Place and Use Instructor's Eye Mirror

- Properly adjust the instructor's seat.
- Place on the windshield where you can see the student's eye movements.
- Observe the student's eye movements.
- Tell the student where to look to see properly.

Learn to Manage Multiple Tasks While Conducting In-vehicle Training

- To supervise student instruction.
- Maintain control of the instructional vehicle.
- Maintain situational awareness.
- Coordinate instruction of the driving route.
- Engage the student observers in the back seat during the driving lesson.

Managing Multiple Tasks While Conducting In-Vehicle Training

- Lesson and car prepared, and routes established.
- Preview the lesson to be taught with your students.
- Turn off your cell phone and put away.
- Envision yourself as the driver to maintain vehicle control.

Managing Distractions While Conducting In-vehicle Training

- Manage the distractions inside and outside of a vehicle.
- Be alert to potential distractions to prepare the students driving.

- Break into your groups and make a list of distractions you have experienced in and outside the vehicle

Managing Distractions While Conducting In-vehicle Training

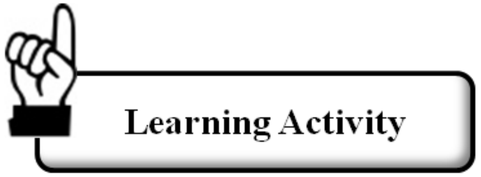
- Pre-plan your lesson and driving routes.
- Drive the driving route prior to the lesson during the time period you will be teaching.
- Alert students of potential distractions that may occur and possible countermeasures.

Managing Distractions While Conducting In-vehicle Training

- Placing non-essential student materials out of passenger compartment.
- Set ground rules for the students.
- Make sure electronic components are turned off and stored away.
- Conversation is focused on driving.
- Practice distraction reducing strategies with your students.

Module Summary

- With the conclusion of this Module, you should be able to:
  - Describe the vehicle and occupant safety checks necessary in preparing for a lesson.
  - Describe how to give directions that are simple and understandable.
  - Demonstrate how to utilize instructor mirrors.
  - Explain how to manage multiple tasks while conducting behind-the-wheel instruction and manage distractions.
  - Describe proper locations to change drivers on street.
  - Describe the proper driver rotation process.



Module Review Activity: Key Words Matchup

Complete the Activity in the Participant Workbook.

PW page 2-20

Questions and Answers

- Describe what words should not be used when giving directions.
- What guidelines should be followed when determining when/where to give directions?

Questions?

Module 5

Command and Control of the Mobile Classroom

Purpose of the Module

- To help you understand:
  - the proper instructor seating position,
  - when and how to take control of the vehicle during in-vehicle instruction,
  - how to utilize dual-brakes, and
  - what to do in an emergency or collision.

Module Sections

This module will cover three topics:

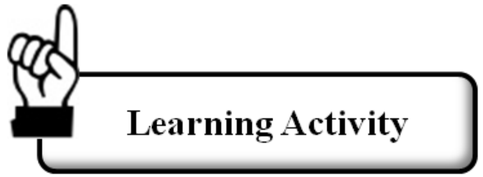
- Managing and taking control of the vehicle
- Utilizing equipment in the vehicle
- What to do in case of collisions

Module Objectives

- By the end of this Module, you will be able to:
  - Demonstrate the proper instructor seating position.
  - Demonstrate when and how to manage and take control of the vehicle.
  - Demonstrate how to utilize dual-brakes.

The Importance of Instructor Seating Position

- Relaxed position but alert.
- Left hand in position of immediate access to the steering wheel.
- Foot positioned ready to use the dual brake.



Activity #1: Demonstrating Proper Seating Position

Demonstrate using chairs or in the vehicle the proper seating position to the instructor candidates.

PW page 5-3

Ways of Managing and Controlling the Vehicle

- Use of verbal commands.
- Use of controls during the first lesson.
  - Dual brake use
  - Steering assistance if needed
  - Gear selector lever

Ways of Managing and Controlling the Vehicle

- Use of the steering wheel.
  - Left hand should be in a position of immediate access.
  - Adjust the steering wheel if the situation presents a threat.

Taking control of the vehicle
When is steering assist required?

- Collision avoidance
- Lane positioning
- Assist for over turning/under turning
- Late turn recovery
- Distracted behavior – hands leave the wheel

Ways of Managing and Controlling the Vehicle

- Using the dual instructor's brake.
  - Do not let it become a student's crutch.
  - Firm pressure with ball of foot.
  - Use when a situation may become a threat to you or other roadway users.

Taking control of the vehicle
When is using the instructor brake required?

- Collision avoidance
- Failure to stop for:
  - Stop signs
  - Traffic lights
  - Pedestrians/cyclists
- Excessive speeds during
  - Turns
  - Curves

Speed control

School zones

Going 5+ miles per hour over the speed limit and not slowing when cued

Ways of Managing and Controlling the Vehicle

- Using the gear selector lever.
  - Left hand in position to reach gear selector lever.
  - Shift to “neutral” in situations where engine is over revving or acceleration is more than braking power.

Taking control of the vehicle
When to shift the vehicle into neutral?

- To avoid a collision
- Speed control
- Unnecessary acceleration allows instructor increased control
- Distractive behavior
- Medical Emergency

Ways of Managing and Controlling the Vehicle

- Using the center-pull parking brake.
  - Can be used as a back-up to instructor brake.
  - Should limit its use due to possible rear-wheel lock-up.
  - Thumb should depress button when using.

Features to look for in an instructor's vehicle

- Ease of accessing the steering wheel
- Gear shift location
- Ease of entering/exiting the vehicle for clients with mobility issues/assistive devices
  - Visibility of driver's feet
  - Room for multiple pieces of adaptive driving equipment
  - Instructor Brake Location

Recognizing and Taking Appropriate Action When Drivers Cannot Perform

- You can tell when a student is not understanding the lesson if the student:
  - Seems confused or frustrated
  - Is asking a lot of questions
  - Doesn't feel comfortable performing a maneuver

Recognizing and Taking Appropriate Action When Drivers Cannot Perform

- What to do when a student is not understanding the tasks:
  - Explain the material in a different manner.
  - Break down the steps to the procedure.
  - Take over control for part of the maneuver such as braking and see if that helps.
  - Go back to a simpler maneuver or less complex maneuver and review.

Student Issues

- Nervousness
  - Take each step slowly and clearly
  - When you introduce a new topic or skills many students will freeze up or become overloaded
  - Back up and review, go back to basics

Student Issues

- Lack of confidence
  - Focus on what the student does well in the beginning
  - As they gain skill you can critique their skills or challenge them more

Student Issues

- Doesn’t listen or follow directions
  - Maintain safety at all times
  - Do not yell at the student
  - May have to use dual instructor brake if student continues (i.e. speed)
  - When possible talk to parents regarding student behavior

How to Use a Dual Brake During in-vehicle Instruction

- Properly installed and operates smoothly.
- Practice applying the brake while the vehicle is operated at varying speeds.
- Should only be used to control the driving situation.
- Verbal commands should be used first.
- When necessary use the dual brake.

How to Use a Dual Brake During in-vehicle Instruction

- Do not place your foot over or on the dual control brake.
- Maintain an instructional position in the car.
- Should be rarely used as it will cause the student to become dependent on it.

Driving Evaluator Vehicle Equipment

Features to look for in an instructor's vehicle

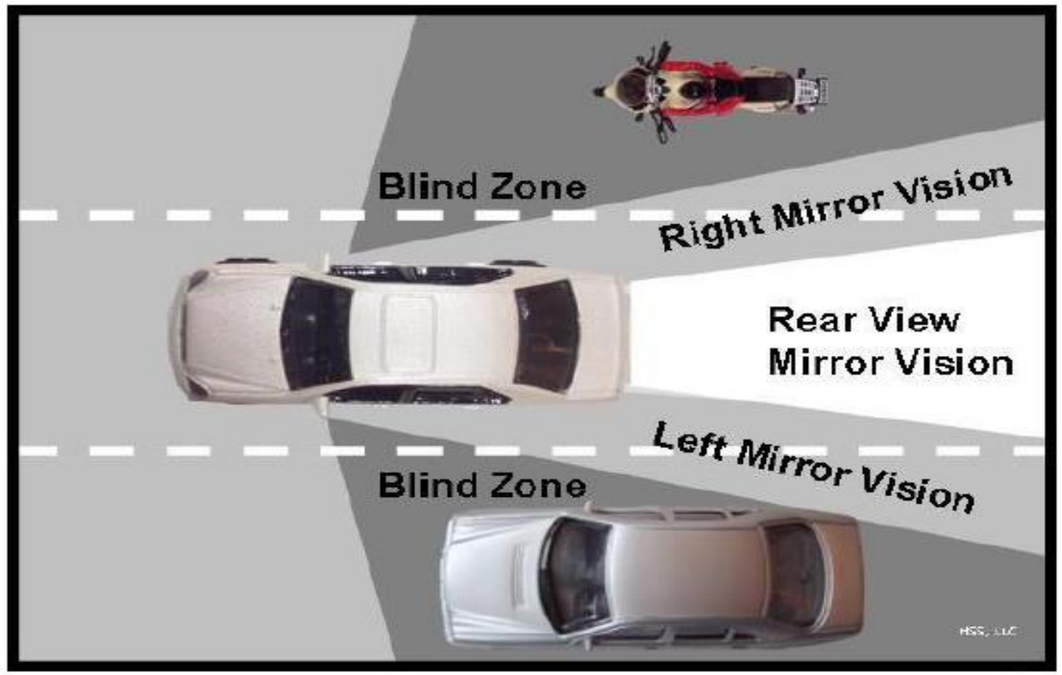
- Ease of accessing the steering wheel
- Gear shift location
- Ease of entering/exiting the vehicle for clients with mobility issues/assistive devices
- Visibility of driver's feet
- Room for multiple pieces of adaptive driving equipment
- Instructor Brake Location
- Comfort of Evaluator/Trainer
- Visibility of driver and instructor
- What else???

Blind spot

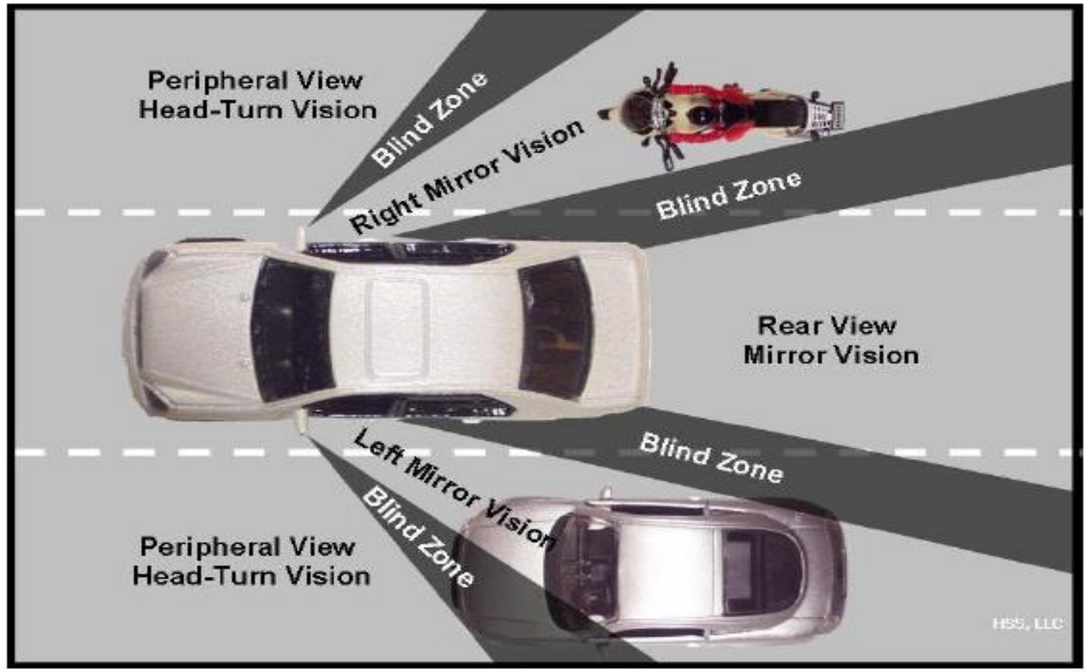
- The blind spot of a vehicle is directly in front of the bumper to an area that can be viewed on the road. The lower the height of the driver, the larger the blind spot.
- The top of the windshield can create a blind spot to seeing objects positioned above the windshield. Sitting too high will result in problems with seeing traffic lights, street sign, and the tops of entrances.

Eliminating the Blind Zones www.nhtsa.gov

A: Traditional Mirror Settings



B: Enhanced Mirror Settings



Exterior top mounted Blind spot Mirror

DSI Model H-X

Drivingsystems.com

Convex Mirrors

Interior blind spot/Limited Neck ROM Mirrors

ADDITIONAL Interior Mount/Limited Neck Rom Mirror Options

Blind Spot Mirrors 1

dSi

#15/100	Convex, Suction Cup, Short Flex Stem 4" X 1-3/4"
#15	Convex, Suction Cup, Long Flex Stem 4" X 1-3/4"
#13	Convex, Bolt, Long Flex Stem 4" X 1-3/4"
#97	Convex, Tape / Screws, Short U-Joint 4" X 1-3/4"
#22	Flat, Suction Cup, Short Flex Stem 6" X 1-3/4"

12/22/2011

Panoramic Rear View Mirror

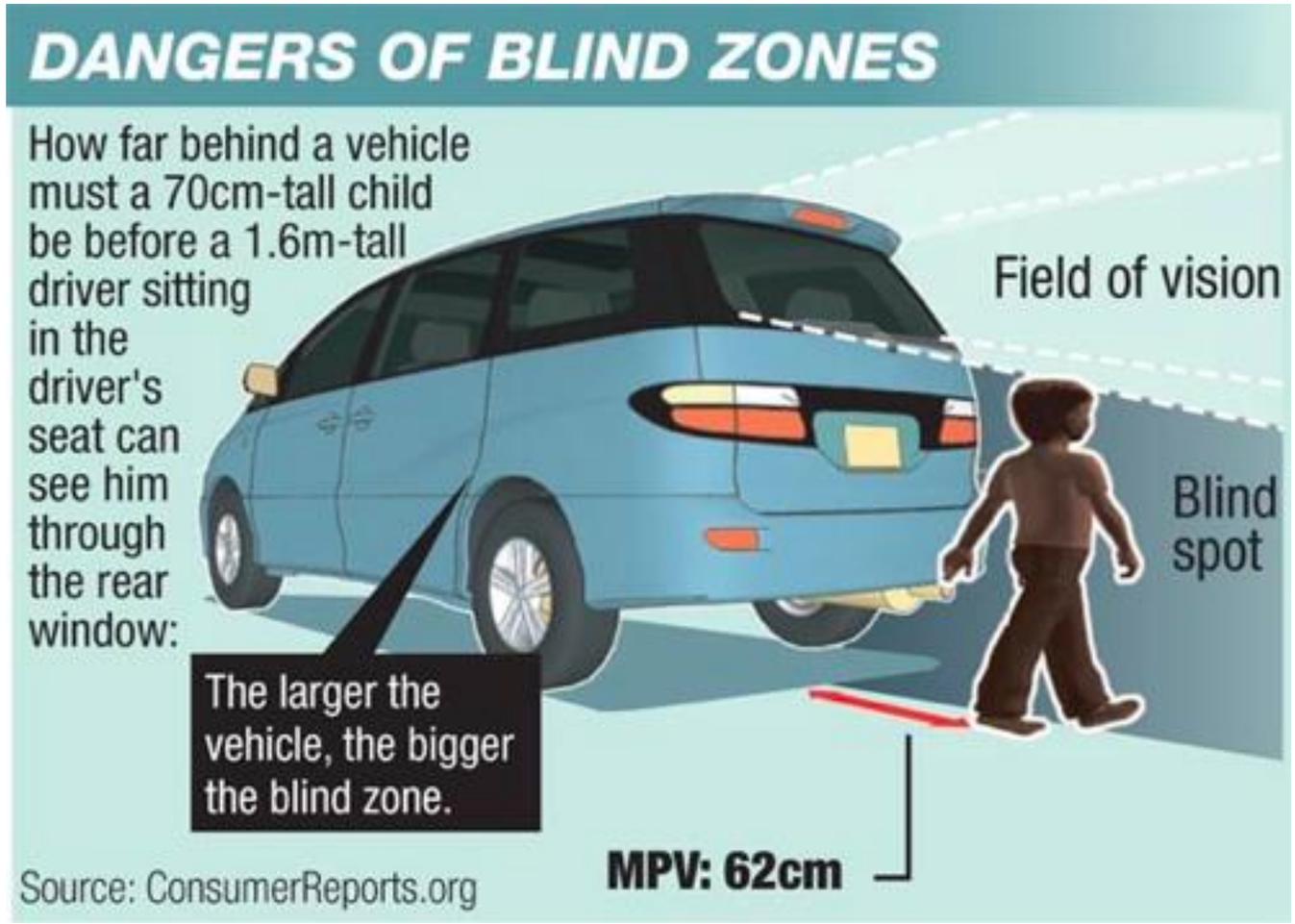
Too much visual information can distract

Smart view mirror

Mirrors to increase visual field

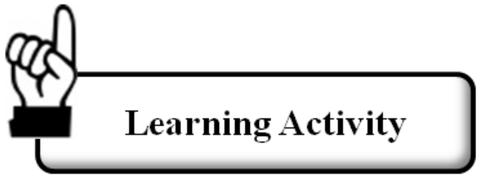
Video cameras to increase field of view

Rear view camera



Module Summary

- With the conclusion of this Module, you should be able to:
  - Demonstrate the proper instructor seating position.
  - Demonstrate when and how to manage and take control of the vehicle.
  - Demonstrate how to utilize dual-brakes.



Module Review Activity: Key Words Matchup

Complete the Activity in the Participant Workbook.

PW page 5-11

Questions and Answers

- Describe ways that the instructor can take control of the vehicle.
- Describe how to use instructor mirrors during in-vehicle instruction.

Questions?

Module 3
In-Vehicle Teaching Techniques (Coaching and Correcting)

Purpose of the Module

- To teach the necessary steps for conducting an in-vehicle lesson

Module Sections

This module will cover five topics:

- In-vehicle teaching techniques
- Commentary teaching and driving
- Engaging the non-driving student
- Coaching the driver
- Evaluating or summarizing an in-vehicle lesson

Module Objectives

- By the end of this Module, you will be able to:
  - Demonstrate the various teaching techniques that can be used in the vehicle to enable learning.
  - Demonstrate how to utilize commentary teaching.
  - Demonstrate how to engage the non-driving student.
  - Demonstrate coaching techniques and features of a good coach.
  - Demonstrate questioning techniques for in-vehicle teaching.
  - Demonstrate how to visually search the roadway ahead and check eye movements of the novice driver.
  - Demonstrate how to summarize the lesson when finished.

The Value of Questions

- Heighten student's involvement.
- Give opportunity to quickly apply knowledge.
- Help in the retention of information being learned.
- Allow students to learn from each other.
- Evaluate how well students are grasping the information.
- Evaluate how well the instructor is coaching.
- Monitor and adjust teaching accordingly.

How to Establish Good Questions

- Questions should:
  - Follow the interest of the student.
  - Start broadly and then increasingly focus on detail.
  - Only ask one question at a time.
  - Be clear and concise.
  - Use open questions which require thought and are non-judgmental.

How to Establish Good Questions

- Questions can and should:
  - Focus on the senses, emotions, attitudes, goals and motives as well as cognitive factors.
  - Relate current experience to prior experience.

Examples of Coaching Questions

- What is your main concern today?
- What do you want to do next?
- Have you done this before?
- How did it go?
- What do you need to know to do this?
- What do you need to particularly watch out for in this situation?
- What can you hear/see/feel?

Examples of Coaching Questions

- What are you feeling at this moment?
- How are you going to deal with this?
- Where are you looking?
- What did you actually do?
- How did you feel in the situation?
- What did you do well?
- What could you do in the future to avoid such a situation?
- What would make it easier for you to do this?

Question

What are some typical instructions used in training?

Questioning Techniques for In-vehicle Teaching

- **Open vs. closed questions**
  - Open questions begin with why, how, when, who, etc.
    - How (nervous) do you feel?
  - Closed questions are yes or no.
    - Do you feel nervous?

Questioning Techniques for In-vehicle Teaching

- **Non-judgment vs. judgment questions**
  - Example for judgmental: Why did you drive so fast?
  - Example for non-judgmental: What factors did you take into account before deciding for this speed?

Questioning Techniques for In-vehicle Teaching

- **Questions on sense and body-awareness vs. intellectual questions**
  - Sensory questions can lead to greater awareness of comfort, stress, nerves and excitement.
  - On a scale from 1-10, how stressed are you now? What could you do to reduce stress for let's say one point only?

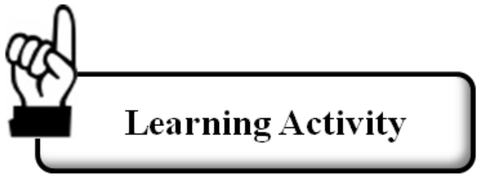
Questioning Techniques for In-vehicle Teaching

- **Coaching questions vs. questioning development**
  - The answer is up to the student.
  - How stressed do you feel when you enter a roundabout?
  - In question developing the learning content is clear right from the beginning but will be elaborated by asking.
  - What does this traffic sign mean?

Questioning Techniques for In-vehicle Teaching

- **Questions on internal subject vs. questions on external facts**

Internal	What signs are there when you are getting tired?
External	What is written in the law about fatigue?



Activity #1: Questioning Techniques for In-vehicle Teaching

Convert the questions from a closed question into an open question for example.

Tips for Active Listening

- Listening is an important skill for instructors.
- Look at the student when they are talking.
- Light nodding and friendly facial gestures are useful.
- Do not try to finish off someone's sentence.
- Do not try to cut off the person when he/she is talking.

Reflecting Back

- Ensures nothing is lost in the questioning and listening process.
- Used for summarizing the student's words.

How to Reflect Back

- An instructor could say: “So is it fair to say that your main concern today is to gain more experience turning left at intersections?”
  - Shows you are listening.
  - Can help structure their thoughts.

Commentary Teaching Techniques

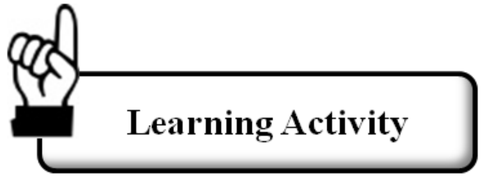
- Instructor verbalizes the conditions and maneuver, executed in short bursts, one to two minutes at a time.
- Familiarizes students with what they are expected to do.
- Verbalizes both perceptual and psychomotor skills.

Student Driver and Observer Commentary Techniques

- Student verbalizes the conditions and their responses.
  - Used after the instructor commentaries.
  - Helps to evaluate students.
  - Demonstrates student awareness, perception, thought processes, etc.
  - Student reads traffic safety picture out loud.
  - Aids in student retention.

Both Commentary Teaching and Student Driver Commentary

- Very important components to the in-vehicle training process.
  - Helps to create interaction.
  - Helps students to understand what they need to do.
  - Provides sequential steps.
  - Aids in retention.
  - Reinforces visual skills.



Activity #2: Commentary Teaching

Describe the steps for the maneuver and practice commentary teaching using the pictures on the next slides.


CHEVROLET


BURGER KING
DRIVE THRU
MUSIC CENTER


ONLY
ONLY
ONLY
Parkvale Building
ONLY
ONLY
END
SPEED LIMIT
45


KEEP BACK
ONLY
WEST
286

Coaching

- The instructor and student form a partnership.
- Encourages the learner to:
  - be him/herself,
  - identify goals,
  - reflect on their experience, and
  - develop strategies to meet their driving goals in the future.

Coaching

- Designed to develop the awareness and responsibility of the person being coached, which is important in encouraging safe driving.

Coaching

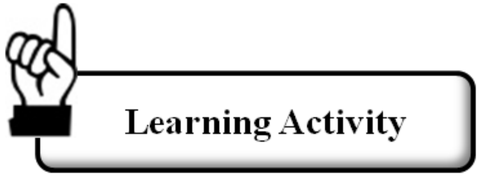
- Driving involves constant decision-making and continual need to make the right choices. To make the right choices in traffic, a student requires:
  - Self-awareness.
  - Awareness of inner and outer factors.
  - A sense of responsibility and consequences.
  - Self-confidence.

Features of a Good Coach

- Allow the student to develop skills through their own practice with guidance and feedback.
- Ignore the small things and focus on shared learning.
- Avoid being an expert unless a safety risk.
- Once objectives have been met, allow the new driver to make navigation and route decisions.

Features of a Good Coach

- Aware of student's abilities, limitations and frustrations.
- See their role as a mentor.
- Believe that safe driving skills are develop through practice and experience.
- Provide driving experiences that promote improvement from lesson to lesson.



Activity #3: Coaching Your Peers

Have instructor candidates coach their peers through an activity.

The Importance of Coaching the Student While Driving to Enable Learning

- Identify a driver's mistakes.
- Provide possible comment to build confidence.
- Explain how to correct the mistake, so that driver success can be achieved.

How Coaching By Correction is an Effective Way of Enabling Learning

- Identify the driver mistakes.
- Immediate feedback should be given once the mistake is identified.
  - Pull over safely.
  - Give the driver another opportunity as soon as possible.

Coaching By Correction

- Use constructive criticism, never use harsh criticisms.
- Never simply tell them that they have done it wrong.
- Always tell them “how” to do it better next time.
- Try to find something positive to say.

Coaching By Correction

- Point out the problem in a positive way and let the student try again.
- Commend the student for the progress but point out where the remaining deficiencies lie.
- Avoid over coaching.

Positive Reinforcement

- Reinforces the positive behavior.
- When a student has been doing poorly and performs with a positive behavior, reinforce that positive behavior.
- Tell students they have done well when they have performed well.

Both Critical Components

Both “coaching by correction” and “positive reinforcement” are critical components to the training process.

- Coaching is an integral part of the training process.
- Coaching should occur throughout the training process.

Leading the Student into an Active Role

- Lead the student out of the role of a passive learner and into the role of an active learner.
- The more active a person is involved in the learning process, the more awareness.

Visual Search Habits and Eye Movement of Driver

1. Develop a regular search pattern.
2. Maintain a 12-15 second path
3. Use a left, center, right search pattern.
4. Regular rear view mirror checks.
5. Head checks need to be made.
6. Scan eye check mirror.

Situational Awareness

- Vehicle movement
- Weather conditions
- Roadway and condition
- Emergency vehicles
- Pedestrian activities

- In-vehicle student interactions
- Other roadway users or situations that might arise

Identifying and Meeting Goals

- Goals must fit the needs of traffic safety.
- Goals could be the overall goal, “what do I hope to achieve as a result of the training?”
- The student should fully accept the goals.

Identifying and Meeting Goals

- Goals should meet the needs of the student and address concerns from previous lessons.
- Encourage the student to identify their own goals.

Raising Awareness

- A high state of awareness is required for driving.
  - Awareness of the outside world
  - Self-awareness
- To be able to drive safely, you have to be aware of these inner and outer worlds.

Raising Awareness

- Done primarily through questioning.
- Questions raise awareness in the form of feedback.

Raising Responsibility

- Safe drivers are responsible drivers.
- The student should feel responsible for their own learning.
- Students should be given responsibility right from the beginning.

Raising Self-Acceptance

- Low self-acceptance is a typical trait of teens.
- Feelings of inadequacy can lead to compensation in the form of risky behavior.
- Low self-acceptance in teens often breeds anxiety and dependence or nervousness.
- If the student feels responsible for the learning process, they recognize the instructor as a partner.

Raising Awareness Through Senses and Emotions

- Driving is not just a rational process.
- People inevitably bring in their lives and emotions into the car with them.
- Young drivers going through emotional period as they develop into adults and start to experience new freedom.
- Important to prepare novice drivers for feelings and emotions during solo driving.

Raising Awareness Through Senses and Emotions

- Can only be developed if the learner recognizes physical sensations and emotions.
- Being encouraged to learn for oneself is considered to have a longer-term impact on learning.

Raising Awareness Through Senses and Emotions

- Do not discuss personal issues, such as boyfriends/ girlfriends, relationships, how a student looks today, etc.
- These are catalysts for a sexual harassment issue.
- Make sure not to discuss other students.
- Conversation should be kept on a professional level.

Addressing Internal Obstacles

- Any form of interference inside a person which disrupts the learning process and ability to meet a goal.

Addressing Internal Obstacles

- Concern that the student has from a previous lesson.
- The student is unlikely to focus fully on the new goals.
- A typical question at the beginning of each lesson could be: “What is your main concern today?”

Building on Prior Knowledge and Experience

- Learning is about connecting new elements with old elements.
- Students bring to driver training a wealth of experience from life and often from driving itself.
  - Driven before
  - Observed parents drive
  - Rode a bicycle
  - Been a pedestrian

Building on Prior Knowledge and Experience

- The driver training process provides experiences, but they must be built on and structured in a process of reflection to ensure what has been learned is sustainable in the future.

Authentic, Neutral and Non-Judgmental Communication

- The instructor should be genuinely interested in the world of the student.
- Instructors have a range of techniques to help students feel that they are being listened to and treated seriously. Including:
  - Repeating sentences
  - Rephrasing and repeating the main ideas
  - Looking at the person
  - Facing them (when you can) rather than standing beside them

Authentic, Neutral and Non-Judgmental Communication

- The instructor needs to be non-judgmental with the student.
- Direct criticism or blame invokes defensiveness and tension which puts a strain on the relationship and encourages the student to close up.

Authentic, Neutral and Non-Judgmental Communication

- Instructors should avoid only focusing on errors and establishing their authority in pointing them out. To avoid direct criticism:
  - Don’t tell the student they have done something wrong. Ask non-judgmental questions.
  - Focus on the situation and not the driver’s behavior.
  - Focus on the positives.

The Importance of Summarizing the Lesson

Summarize each student's driving performance.

- Ask the students to assess their driving.
- Begin with the positives.
- Constructively correct negatives.
- End with positives.
- Suggest improvements.
- Discuss what will be done in the next lesson.

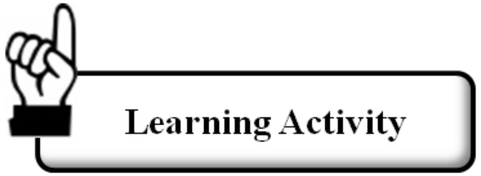
The Importance of Summarizing the Lesson

- Immediately record the student's performance using an anecdotal record.

- Brief the parent or guardian, when possible, on how well the student is doing and what they need to practice more on.

Module Summary

- With the conclusion of this Module, you should be able to:
  - Demonstrate the various teaching techniques that can be used in the vehicle to enable learning.
  - Demonstrate how to utilize commentary teaching.
  - Demonstrate how to engage the non-driving student.
  - Demonstrate coaching techniques and features of a good coach.
  - Demonstrate questioning techniques for in-vehicle teaching.
  - Demonstrate how to visually search the roadway ahead and check eye movements of the novice driver.
  - Demonstrate how to summarize the lesson when finished.



Module Review Activity: Key Words Matchup

Complete the Activity in the Participant Workbook.

PW page 3-25

Questions and Answers

- What is commentary driving and give examples?
- What is meant by coaching by correction?
- Describe questioning techniques used during in-vehicle training.
- What should be stated when summarizing an in-vehicle lesson?

Questions?

Steering

Pull/push or hand over hand?

- Which is safer
- Both hands on the wheel
- Hands never cross
- If there are other struggles should this be what we focus on?
- Practice

Precision Turns

- How do we teach precision turns?
  - Precision turns
  - Practice

Entering Traffic

What is the process for entering traffic?

- SMOG
- MSMOG
- Adds in both mirrors
- Practice

Crossing Traffic

How do we search an intersection?

- Left right left?
  - Activity
  - Volunteer
- Deep 90 degrees LFR
- 45 degrees LFR
- Practice

Exiting Traffic

What is the process for exiting traffic?

- SMOG
- MSMOG
- Adds in both mirrors
- Practice

Vehicle Balance

Three types of skids

- Rear
- Front
- All
- Activity

Backing Straight

How do you teach backing up?

- What about a rearview camera (backup)?
- Practice

Lane Changes

What is the process for lane changes?

- SMOG
- MSMOG
- What does a shallow angle mean?
- Practice

2-second Delay Start

What are the Benefits?

- Time for vehicles to run the red light
- Time for us to search intersections
  - Stopped?
  - Moving?
- Automatically create a good following distance

Zone Control (SEE)

Find

Line-of-Sight or Path-of-Travel Problems: Open, Closed, or Unstable Zone conditions

Solve

Before taking an action, check related zone conditions so you can select the best position, speed, and communication options.

Control

The 4-second danger zone. Reevaluate conditions and be ready to make adjustments before entering that space.

Putting it All Together

- Zone Control (truck)
- Searching Intersections
- 2-second delayed start

- Scaffolds (builds upon itself)

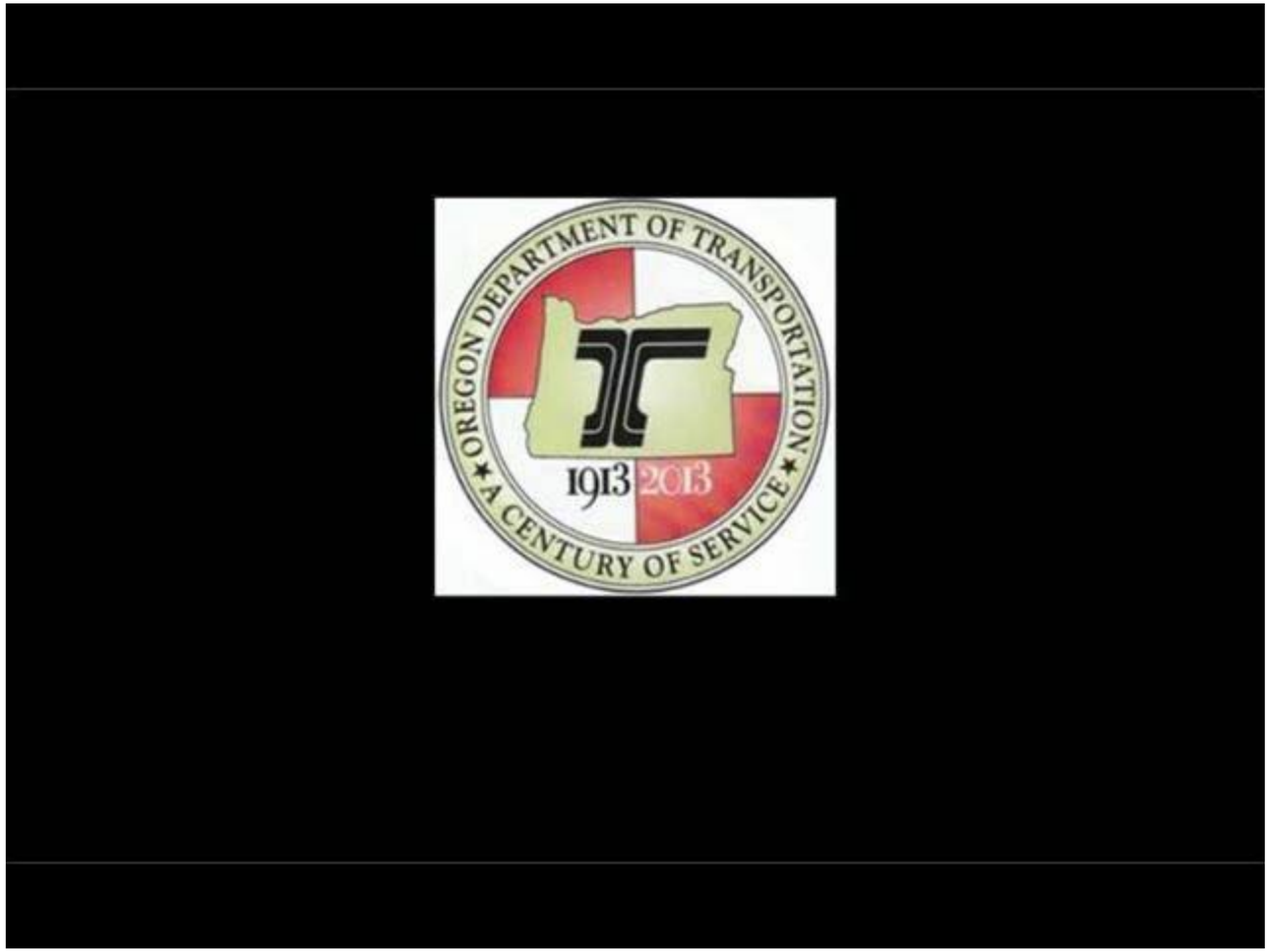
Let’s see if you can multi-task
(Just like I have seen many of you do in this class with your phones)

Forward Angle Parking

Perpendicular Parking

- Forward and Backing in
- How to Park

Parallel Parking



Disabilities and Driving

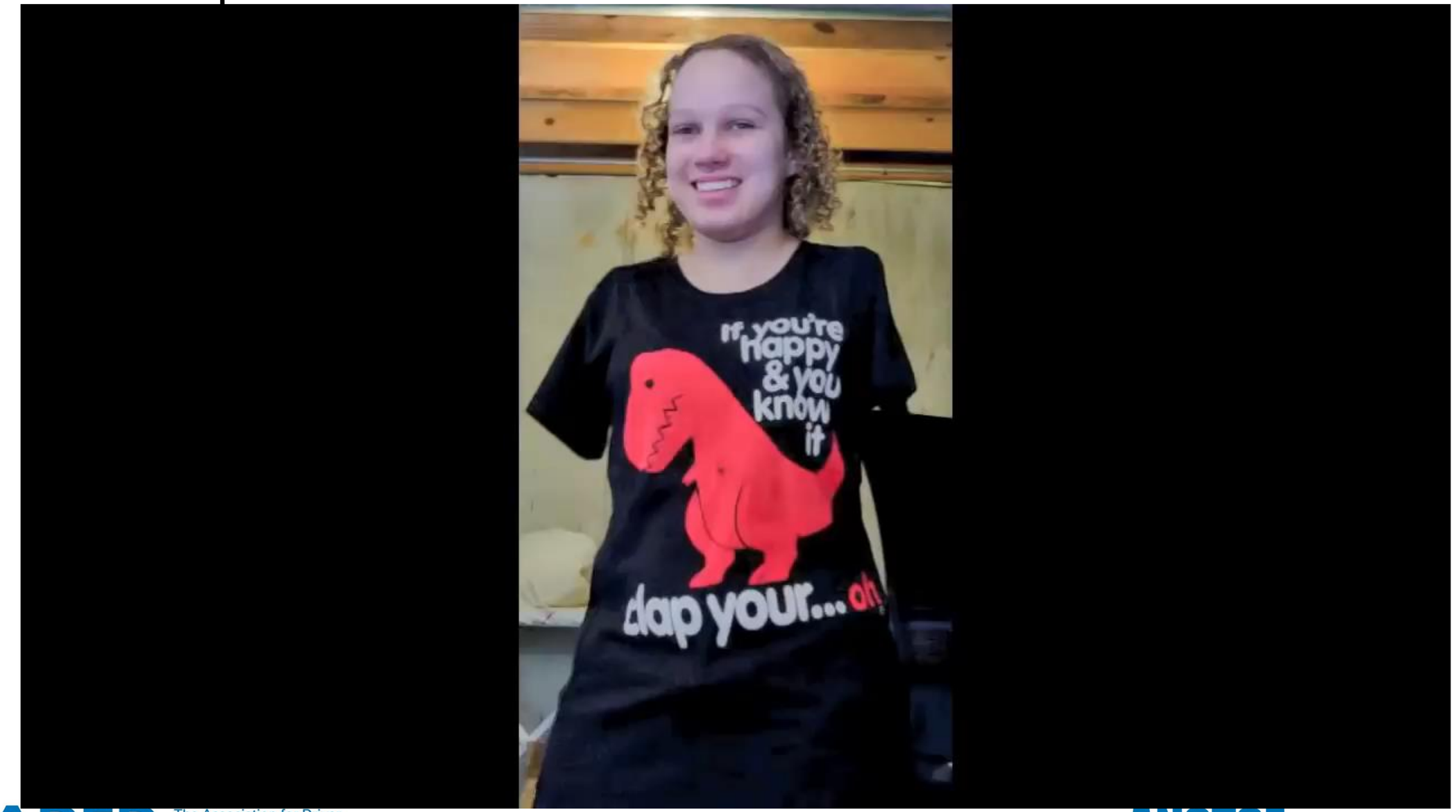
Acquired Disabilities

- Amputation
- Arthritis
- Traumatic Brain Injury & Stroke (CVA)
- Spinal Cord Injury

Amputation: Common Causes

- **Medical:** Diabetes, peripheral vascular diseases, gout, gangrene, tumors,
- **Traumatic:** accidents, frostbite, infections, casualties of war
- **Congenital:** born with loss or partial loss of limb- due to genetic abnormalities, growth restriction or mechanical forces that affect the fetus

Bilateral UE Amputee - Video



Arthritis

Arthritis is a type of joint disorder that affects joints or tissues around the joint. Most types cause pain and stiffness around a joint or joints and some can affect the immune system, internal organs, connective tissue, organs and vision.

Reference: https://www.cdc.gov/arthritis/basics/faqs.htm#WhatIs

- There are more than 100 different types of arthritis. Osteoarthritis is the most common
- Affects people of all ages, genders and races
- Leading cause of disability in the United States. (CDC, 2016)

Arthritis: Common Impairments

- Impairment in range of motion of affected joints
- Pain
- Stiffness
- Fatigue
- Depression
- Weakness
- Dry eyes (rheumatoid)

- Equipment will depend on the extent of the arthritis and the joints involved: fixed vs progressive deformity

Acquired Brain Injury

An acquired brain injury (ABI) is an injury to the brain that is not hereditary, congenital, degenerative, or caused by trauma at birth. It affects the brains neuronal activity. There are two types:

Traumatic Brain Injury: Caused by an external force.

Non-Traumatic Brain Injury: Caused by an internal force.

Reference: biausa.org

Functions of the Brain

- Each area of the brain has an associated function
- When certain areas of the brain are damaged, the functions of those area will be impacted
- Brain dysfunction can be caused by many things, but stroke and traumatic brain injury are two of the most common causes
- Although the cause of the brain dysfunction may vary, often similar functional limitations are observed

Common Impairments: Right Brain

- Paralysis on the left side of the body
- Visual – spatial impairment
- Quick, inquisitive behavioral style, impulse control problems
- Loss of “the big picture” type of thinking
- Memory loss – visual memory deficits
- Attention problems
- Recognition and expression of emotion
- Decreased awareness of abilities
- Neglect

Common Impairments – Left Brain

- Paralysis on the right side of the body
- Vision problems
- Speech/language problems - understanding or expressing
- Slow, cautious behavioral style
- Memory loss – verbal memory deficits
- Deficits in planning and organization
- Emotional lability
- Catastrophic reactions (depression, anxiety)

Acquired Brain Injury: Common Communication Deficits

- **Aphasia** – receptive and/or expressive
- **Dysarthria** – impaired oral motor control which can lead to impaired intelligibility
- Both can affect the ability to communicate during the assessment

Acquired Brain Injury: Behind-the-Wheel Assessment

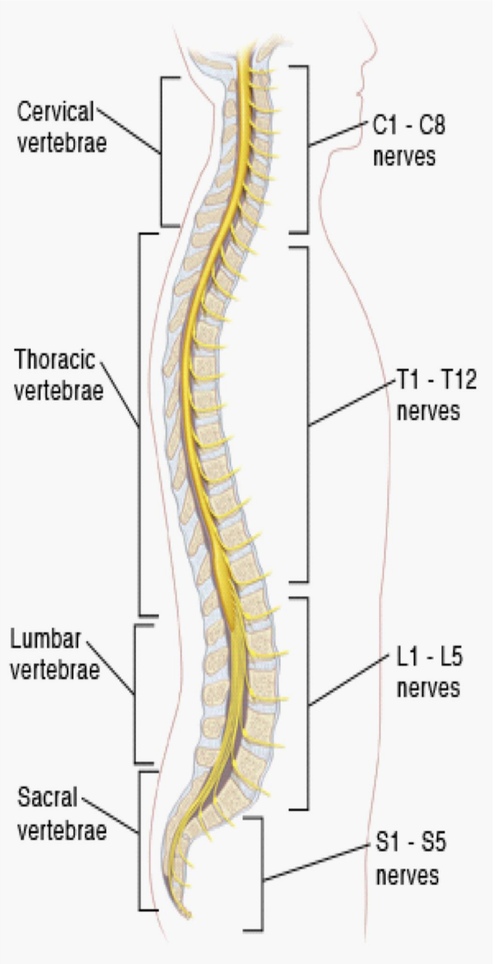
- Provide wide variety of situations
- Impulsive behaviors
- Topographical orientation
- Fatigue
- Insight
- Attention and distractibility
- Visual/Perceptual deficits
- Need for adaptive equipment

Acquired Brain Injury: Training

- Repetition
- Commentary driving
- Active passenger
- Bridging – carry over
- Limit or increase distractions
- Require consistency of performance
- Ability to follow restrictions/reliability
- Do they have a support system

Spinal Cord Injury

- Spinal cord injury (SCI) occurs when the bony protection surrounding the cord is damaged by way of fractures, dislocation, burst, compression, hyperextension or hyperflexion
- Damage to the spine can vary depending on type of injury (vertebral fracture vs penetrating wound)
- The incidence of SCI is highest among persons age 16-42, males > females
- Auto accidents are the leading cause of SCI in the United States for people age 65 and younger followed by falls, acts of violence (primarily gun shot wounds) and sports or recreational activities



Spinal Cord Injury: Common Impairments

- Loss of function at injury level can be complete or incomplete
- Cervical (neck) injuries usually result in tetraplegia or quadriplegia
  - The higher the level the lower the physical functioning
  - C1-C4 will be passenger only evaluations
  - C5-C8 can often be drivers, equipment needed will depend on level of injury
- Injuries at the thoracic level and below result in paraplegia, with the upper extremities not affected.

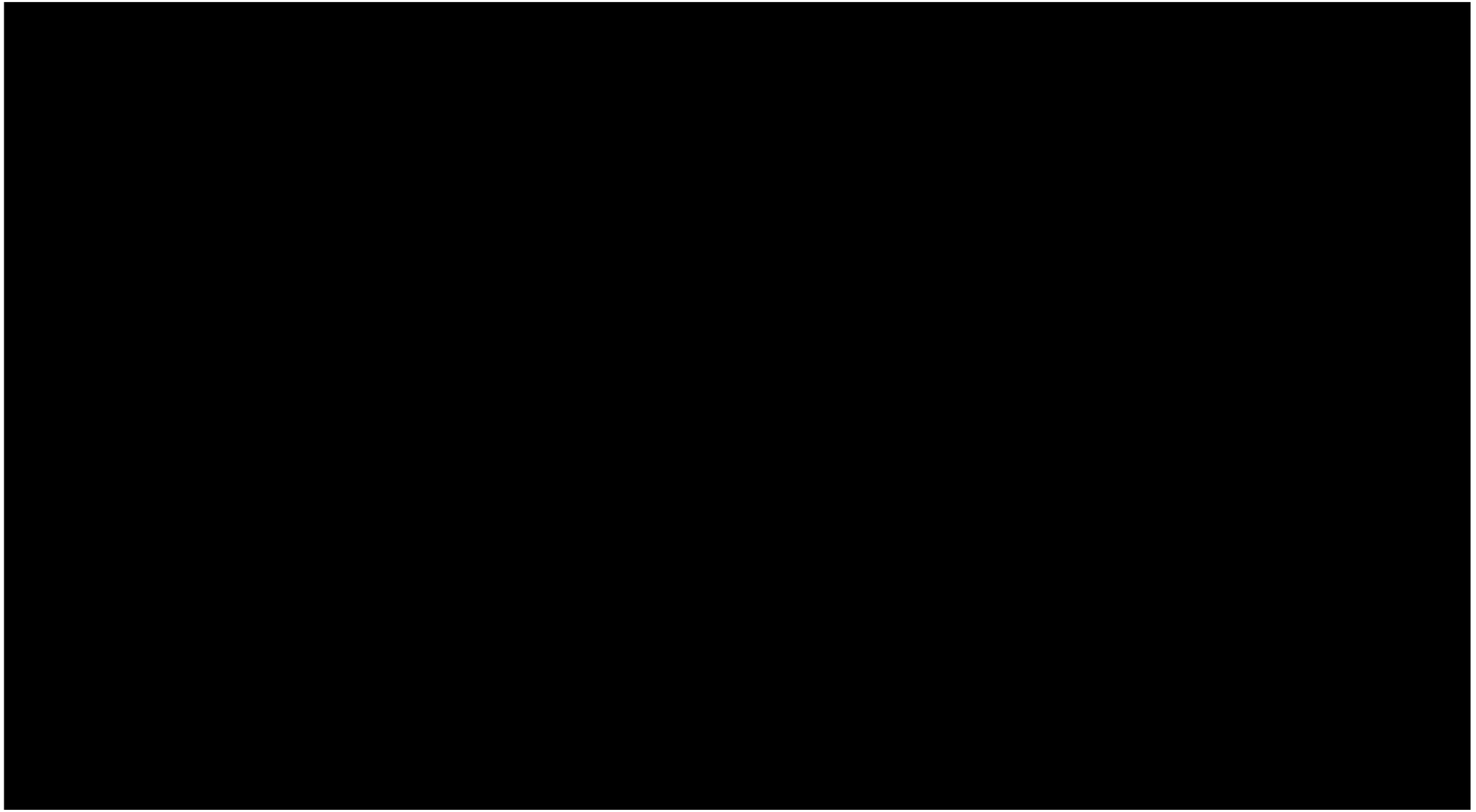
SCI: Behind-the-Wheel Assessment and Training

- Assessment focuses on function to determine equipment prescription.
- Cognitive and visual perceptual impairment may be a factor if the brain was injured along with the spinal cord
- Most are experienced drivers and training will focus on becoming competent with their new equipment.

SCI: Behind-the-Wheel Assessment and Training

- Address positioning and be cautious about spasms and involuntary movement
- Provide tasks that challenge balance i.e., curves and hills
- Take into consideration fatigue level
- Medication compliance - type and time
- Higher level injuries (high tech equipment) should have additional training in their own van
- Temperature regulation issues
- Pressure relief/weight shifts

Wheelchair transfer to car Video



Progressive Disabilities

Progressive Disabilities Common Themes

- Abilities will deteriorate by worsening, growth or spread of disease
- May lead to serious debility or even death
- Some progressive diseases can be slowed, halted or reversed by medical treatment
- Virtually all are chronic in terms of course and many referred to as degenerative
- Knowledge of disease processes and supports are necessary for decision making about driving abilities and equipment needs.
- Insight is critical to safety

Progressive Disabilities

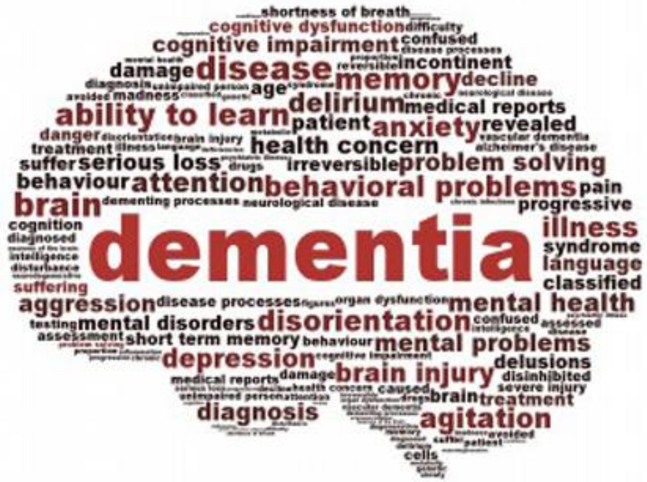
- Dementia
- Peripheral Neuropathy
- Multiple Sclerosis
- Muscular Dystrophy
- Parkinson's Disease

Dementia

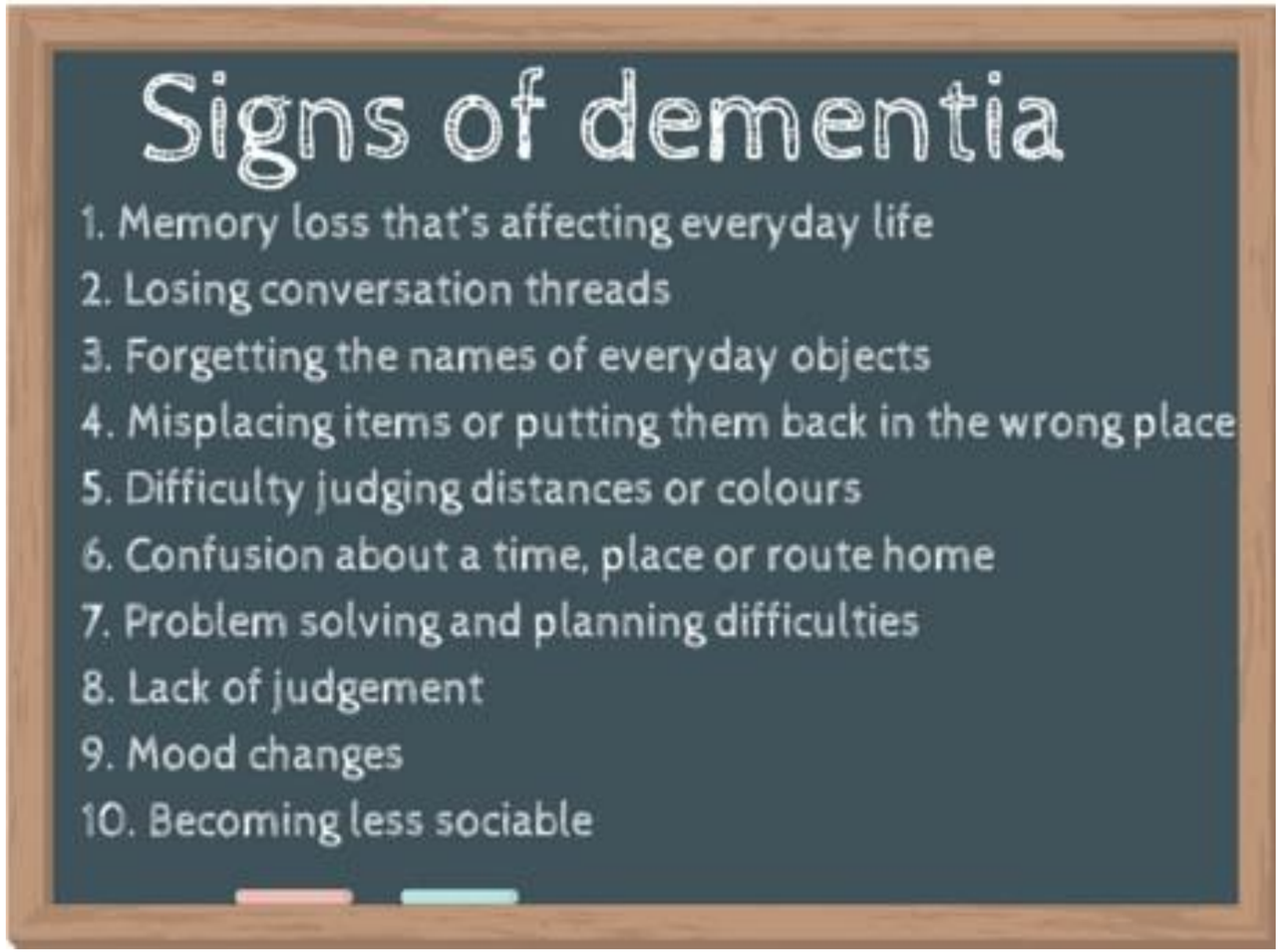
Dementia is not a specific disease. It's an overall term that describes a group of symptoms associated with a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities.

Types or Causes of Dementia

- Alzheimer disease
- Vascular dementia
- Neurological diseases
- Trauma
- Infection



Dementia: Common Impairments



- Memory loss
- Multi-tasking
- Judgment and reasoning
- Attention
- Problem Solving
- Motor Processing
- Behavior changes
- Agitation
- Delusions

Dementia: Behind-the-Wheel Assessment

- BTW Assessment should be of sufficient duration and variety of experiences to determine difficulties
- Focus on cognitive skills required for driving, such as memory retention for destination, insight, judgment etc.
- Include familiar and unfamiliar areas, unpredicted events
- Assess the ability to plan routes including safety factors such as unprotected turns
- Discontinue BTW assessments if client exhibits unsafe driving behaviors.
- Training is not recommended due to limited capacity for new learning to improve driving skills or correct bad habits

Dementia: Restrictions

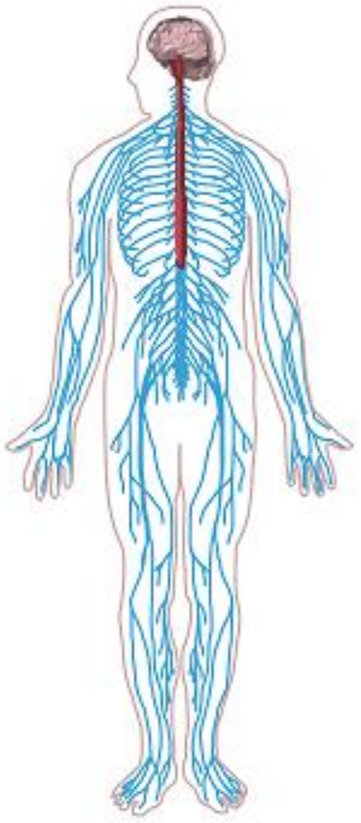
Restrictions will generally be environmental

- Client must demonstrate ability to remember and follow restrictions
- Support system should be in place to monitor compliance

- 76% of people with 'mild dementia' are able to still pass a BTW test
- Annual or periodic re-evaluations as directed by advocate or doctor
- Prepare for driving cessation and explore options for community transportation

Peripheral Neuropathy

Peripheral Neuropathy refers to the many conditions that involve damage to the peripheral nervous system, the vast communication network that sends signals between the central nervous system (the brain and spinal cord) and all other parts of the body



Acquired neuropathy

- Examples Diabetes, Cancer and Chemotherapy, Trauma, Autoimmune Diseases, Medication side effects

Hereditary neuropathy

- Charcot-Marie-Tooth Disease

Idiopathic neuropathy

- These stem from an unknown cause.
  As many as one-third of all neuropathies are classified in this way.

Peripheral Neuropathy Symptoms

- Tingling/numbness in hands or feet (paresthesia)
- A feeling like wearing a tight glove or stocking or weak, heaving feeling arms and legs
- Sharp, stabbing pains
- Regularly dropping things
- A buzzing or shocking sensation
- Thinning of the skin that can lead to injury
- Extreme sensitivity to touch
- Lack of coordination and falling
- Muscle weakness or paralysis if motor nerves are affected
- Uncontrolled muscle twitching

Neuropathy Behind-the-Wheel Assessment and Training

- Experienced drivers often seniors
- May have had an at-fault accident such as rear ending a car or running into a stationary object/structure due to missing the brake pedal, inability to maintain pressure on the brake or to not knowing how much pressure is being applied to the brake.
- May have developed habits such as stopping well back from the stop line or other cars, applying the brakes multiple times when approaching a stop or leaving larger gaps in traffic.
- May have developed anxiety regarding driving due to near misses or other negative experiences
- Explore appropriateness for adaptive driving equipment

Multiple Sclerosis

Multiple Sclerosis (MS) involves an immune-mediated process in which an abnormal response of the body's immune system is directed against the central nervous system (brain, spinal cord and optic nerves).

- The presentation of MS can be highly variable from person to person
- Symptoms can vary over the course of a day
- Symptoms and functional performance may be impacted by time of day, weather conditions, medications and sleep
- Important to assess all areas; physical, cognitive, visual, visual perception, behavior and fatigue.

Multiple Sclerosis: Common Symptoms

- Fatigue
- Difficulty walking
- Sensory impairment
- Pain syndromes
- Visual changes
- Spasticity
- Cognitive dysfunction
- Dizziness
- Emotional changes
- Tremors
- Low tolerance for heat and humidity

MS: Behind-the-Wheel Assessment and Training

- Assess at different times of day to determine the effects of fatigue on driving
- Train on adaptive equipment and ability to follow through during sessions
- Monitor cognition and behavior, i.e. decision making, attention, scanning, reaction time, impulsivity
- Must address device management and transfers

MS: Driving Restrictions

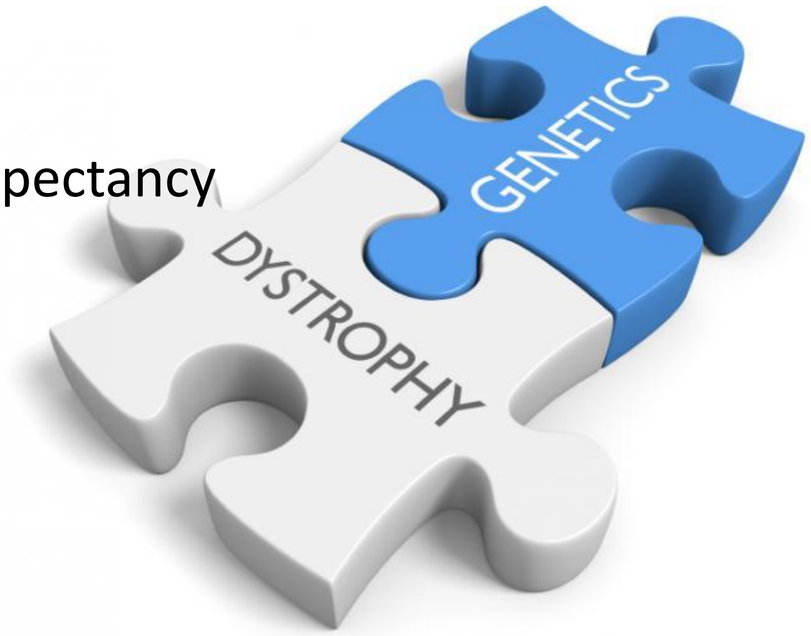
- Annual/periodic reassessments often based on clinical presentation and ordered by medical provider
- Prepare for potential changes in function that may include
  - Addition of a mobility device (walker, manual or power wheelchair)
  - Limitations in driving time, roadways, road conditions, time of day
  - Need for a modified vehicle
  - Driving cessation and the community transportation

Muscular Dystrophy

Muscular Dystrophy (MD) is a group of of more than 30 genetic diseases characterized by progressive weakness and degeneration of the skeletal muscles that control movement.

- Flaccidity
- Contractures
- Fatigue
- Scoliosis
- Cataracts
- Depression/anxiety

- Coordination difficulties
- Mobility impairments
- Behavior changes
- Developmental disabilities
- Some types shorten life expectancy



MD: Behind-the-Wheel Assessment and Training

- Must consider disease course and severity
- Decreased endurance – may need shorter sessions
- Observe for abnormal substitution patterns and avoid them
- Equipment cost benefit ratio
  - Present facts
  - Do not impose values
- Annual or periodic reassessments based on clinical presentation
- Prepare for driving cessation

Parkinson’s Disease

Parkinson's Disease (PD) is a neurodegenerative disorder that affects predominately dopamine-producing neurons in a specific area of the brain called the substantia nigra.
Symptoms develop slowly over many years.

Primary/Movement Symptoms:

- Tremors
- Rigidity or stiffness of the limbs and trunk
- Bradykinesia or slowness of movement
- Postural instability or impaired balance and coordination
- Decreased Fine Motor control
- Reaction time
- Neck Range of Motion

Parkinson's Disease

Secondary/Non-Movement Symptoms:

- Cognitive changes, Memory difficulties and slowed thinking
- Speech changes
- Loss of facial expression
- Difficulty swallowing
- Fatigue
- Sleep disturbances
- Depression
- Urinary problems
- Vision issues (double vision, dry eyes)

Parkinson's Disease: Behind-the-Wheel Assessment and Training

- Focus on cognition and vision
- May need training of compensatory techniques and to ensure carryover
- The individual may have good and bad days or times of day
- Timing of medication often critical
- Often adaptive equipment is not a possible solution, mirrors do assist at times

Parkinson's Disease: Restrictions

- Need to demonstrate good judgment to restrict themselves when they are having a bad day
- Periodic reassessments based on clinical presentation
- Prepare for potential driving cessation

Congenital or Developmental Disabilities

Congenital Disorders and Developmental Disabilities

- Cerebral palsy
- Spina Bifida
- Dwarfism
- ADD/ADHD
- Autism Spectrum
- Learning Disabilities

Cerebral Palsy : Common Impairments

Cerebral palsy refers to a group of neurological disorders that appear in infancy or early childhood and permanently affect body movement and muscle coordination. Causes include abnormal brain development or damage due to an injury.

- Range of motion
- Weakness in one or more limbs
- Abnormal muscle tone
- Coordination
- Abnormal reflexes
  - Startle reflex
- Visual motor skills
- Visual perceptual skills
- Cognitive skills
- Executive Functioning
- Seizures
- Intellectual disability

Spina Bifida: Common Impairments

Spina Bifida is a birth defect in which there is an incomplete closing of the spine and membranes around the spinal cord during early development in pregnancy

- Lower extremity weakness and/or paralysis
- Short stature
- Scoliosis
- Hydrocephalus
- Visual perception impairment
- Intellectual and learning disabilities

Dwarfism

Dwarfism is short stature that results from a genetic or medical condition. Dwarfism is generally defined as an adult height of 4 feet 10 inches or less. The average adult height among people with dwarfism is 4 feet .

- Disproportionate dwarfism - The most common cause is a disorder called achondroplasia.
- Proportionate dwarfism- Growth hormone deficiency is a relatively common cause of proportionate dwarfism.

(MayoClinic.org 2019)

ADD/ADHD: Common Impairments

Attention-deficit/hyperactivity disorder (ADHD) is a brain disorder marked by an ongoing pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development.

- Difficulty sustaining attention/distractibility
- Careless mistakes
- Difficulty following instruction
- Forgetfulness
- Impulsivity
- Decreased executive functioning
- Decreased information processing speed

Autism Spectrum Disorders: Common Impairments

Autism spectrum disorder (ASD) refers to a group of complex neurodevelopment disorders characterized by repetitive and characteristic patterns of behavior and difficulties with social communication and interaction. The symptoms are present from early childhood and affect daily functioning. The term “spectrum” refers to the wide range of symptoms, skills, and levels of disability in functioning that can occur in people with ASD.

- Impaired ability to make friends with peers
- Impaired ability to initiate or sustain a conversation with others
- Anxiety
- Restricted patterns of interest that are abnormal in intensity or focus
- Inflexible adherence to specific routines or rituals
- Higher prevalence of sleep disturbances can result in drowsy driving

Types of Learning Disabilities

Specific learning disorder (often referred to as learning disorder or learning disability) is a neurodevelopmental disorder that begins during school-age, although may not be recognized until adulthood. Learning disabilities refers to ongoing problems in one of three areas, reading, writing and math, which are foundational to one's ability to learn. (American Psychiatric Association 2018)

The types of LD are identified by the specific processing problem:

- Input – getting information into the brain
- Integration – making sense of this information
- Memory – storing and later retrieving this information
- Output – getting this information back out

General Driving Considerations

- Will be new drivers so both the ability to operate the vehicle and the potential to learn the task of driving are being assessed.
- May have few relevant life experiences to draw upon such as riding a bike or being an independent pedestrian
- May never have been a front seat passenger if previously transported in a wheelchair
- May have had few real responsibilities
- Training may be lengthy and costly
- Adaptive equipment may be needed
- Some client may not have the potential to learn to drive

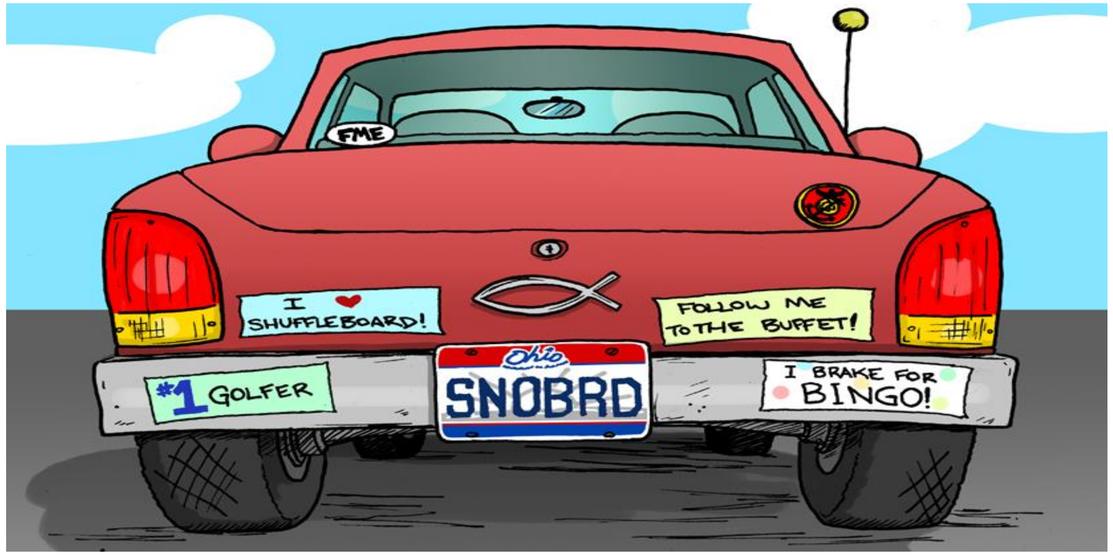
General Driving Guidelines

- While there are definite differences in the presentation of these disorders the basic approaches in behind the wheel training are similar.
  - Graded experience
  - Commentary driving
  - Active passenger activities
  - Visual search skills – sustaining and focusing attention on the most critical information
  - Reduce distractions
  - Include parents in training when appropriate
  - Medication?

The Older Driver

The older driver

Why do we address this population as a separate group?



Driving = independence

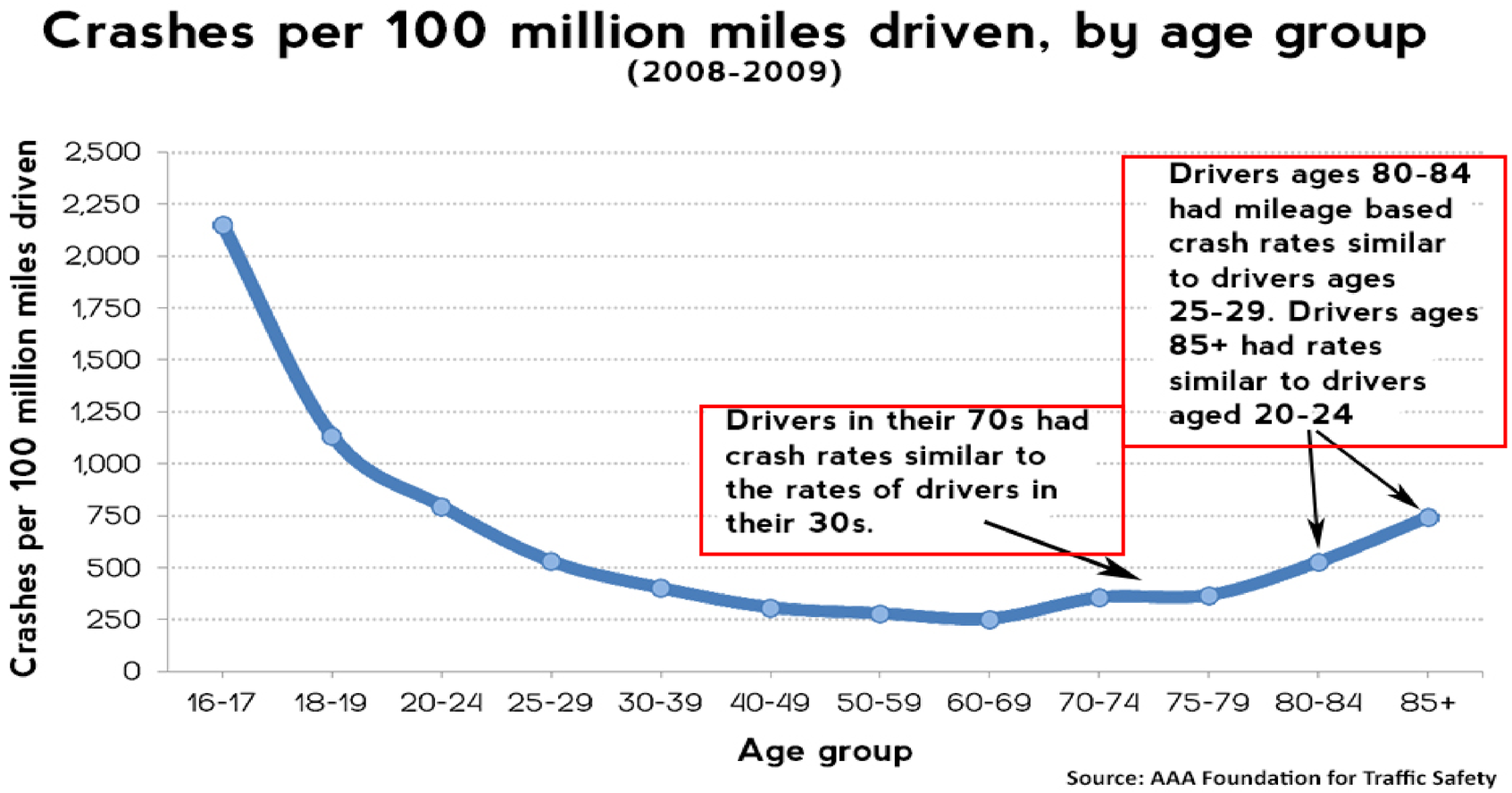
Rite of passage	Social and professional relationships	Roles
Symbol of Autonomy	Access to services	Access to travel
Self concept/self esteem	Sense of personal competence	Influence how we see the world

Medical Conditions & Training Considerations

Aging Issues

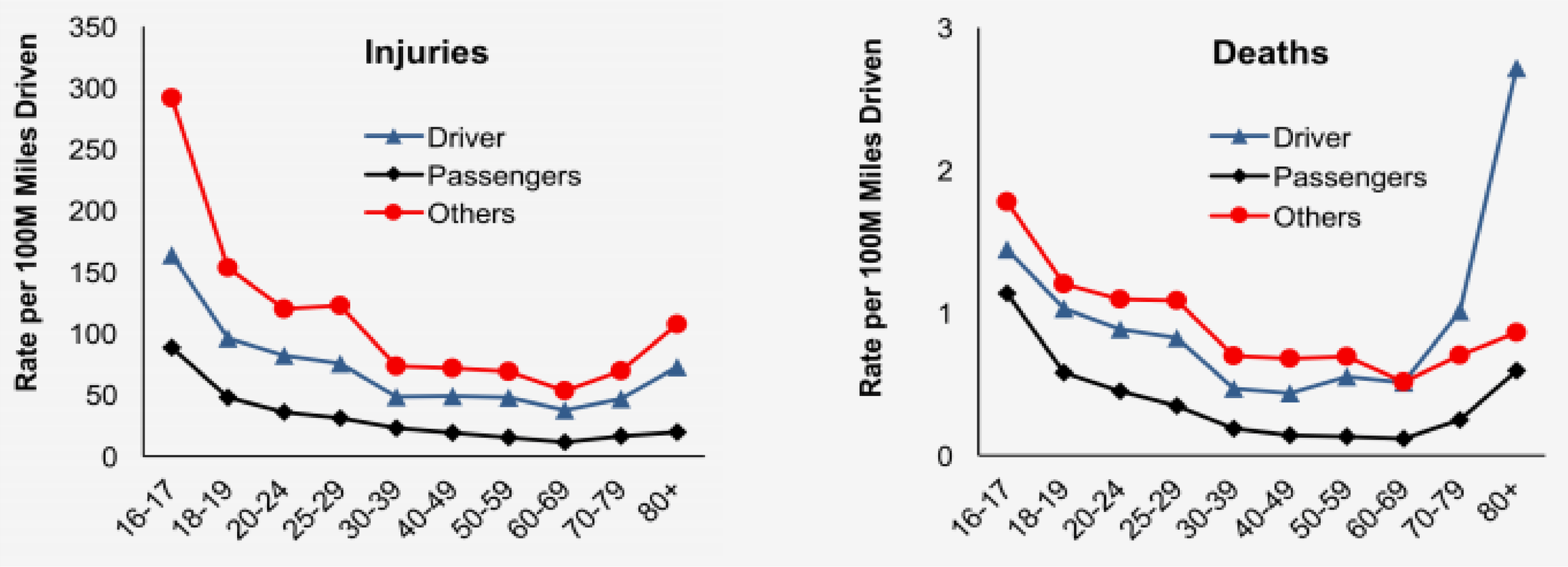
- Slower Cognitive and Visual Processing Speed
- Decreased Visual Acuity
- Slower physical response time
- Impaired hearing
- Health conditions and medications

Crashes per mile traveled



Source: AAA Foundation for Traffic Safety

Rate of motor vehicle injuries/deaths in relation to driver age



AAA Foundation for Traffic Safety, 2017

Self regulation

- Avoid driving at night
- Avoid driving in inclement weather
- Drive on local roads only
- Avoid highway/interstate driving
- Limit driving frequency

Insight and the Older Driver

'the power or act of seeing into a situation'

- Less likely to cease driving due to medical issues
- Impaired cognitive abilities: unable to self-regulate their driving
- Caregivers/family members of dementia patients may lack the insight needed to limit and eventually discontinue driving

Of course, I can drive…

- ‘I've never had an accident’
- ‘I can see perfectly fine without my glasses’
- ‘I know the signs when I see them on the road’
- ‘I've been driving for 62 years, don't tell me I can't drive’
- ‘I’m a good driver, it’s all those other drivers out there!’

Reason for referral

- Medical provider referral
- Concerned family member
- Licensing agency referral (Medical Advisory)
- Recent accident/near miss
- Self referral to determine medical fitness

Warning signs for problematic driving

- Uses a ‘copilot”
- Bad judgment making left turns
- Driving at inappropriate speeds
- Delayed responses to unexpected situations
- Not anticipating potentially dangerous situations

Warning signs for problematic driving

- Confusing brake and gas pedals
- Stopping in traffic for no apparent reason
- Failure to stop for stop sign or red light
- Getting lost in familiar places

Warning signs for problematic driving

- Incorrect signaling
- Trouble navigating turns/hitting curbs
- Moving into a wrong lane
- Parking inappropriately
- Confusion at parking lot exits

Driving cessation

- It is always a difficult conversation
- Keep well- informed of research data related to medical fitness to drive to help strengthen your decision
- Check to see if your State has a statute that protects medical providers from reporting at risk drivers
- Ultimately, it will be the family members responsibility to remove access to the vehicle
- The Hartford Courses/Publications on driving cessation

ACTIVITY

Bad Habit or Driver Error?

52 y/o male undergoing hand control training. During the first 2 behind the wheel sessions, forgets to put his seatbelt on before attempting to place the vehicle in reverse.

Bad Habit or Driver Error?

18 y/o male with a dx of traumatic bilateral lower extremity amputation secondary to a motorcycle accident. While on his drive you notice that he consistently pulls too hard on the hand controls and accelerates too fast from a stopped position.

Bad Habit or Driver Error?

74 y/o female with a dx of early onset dementia is out on her 3rd drive. She was instructed to navigate back to her home but she missed the exit to her home

Bad Habit or Driver Error?

43 y/o female with a dx relapsing remitting MS drives from her power chair. On her second drive you notice that she is only allowing a 2 second lead time for the vehicle in front of her.

Adaptive Driving Equipment

Vehicle Access-Transfer Assist

Handy Bar

Example of Device to Assist Turning Body into Vehicle

Examples of Devices to Assist Sit to Stand

Seatbelt Adaptations

Rigid Extender Options

Torso Belt

eFutureSafe AMF-Brun

Mobility Innovations-Veigel Jimmy

Outside Vehicle Transfers

Mobility Innovations-Veigel Transfer Board

Wheelchair Sedan Transfer

Outside Vehicle Transfers

BraunAbility Turny Evo

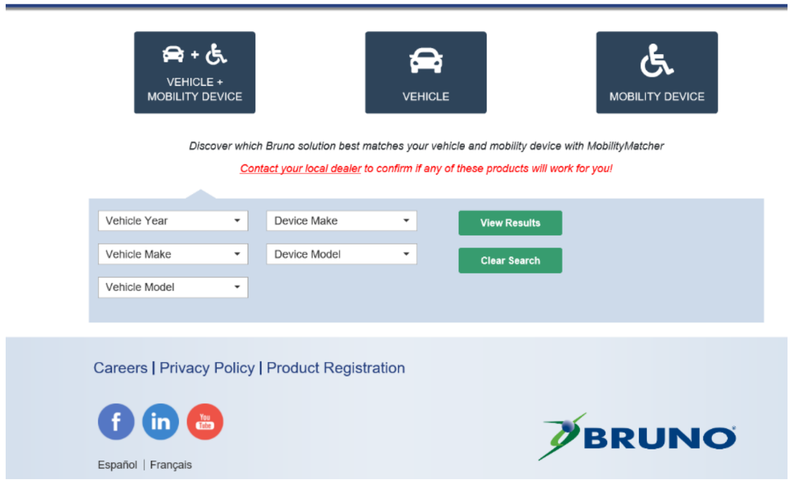
Adapt Solutions Asento

Inside Vehicle Transfers

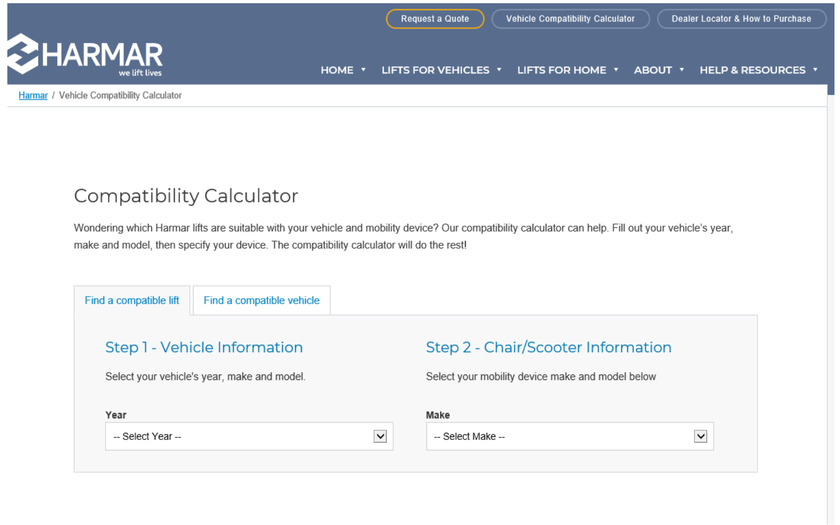
BraunAbility B+D Transfer Base

Wheelchair/Scooter Transport

Equipment Compatibility



[Bruno Match Maker]



[Harmar Compatibility Calculator]

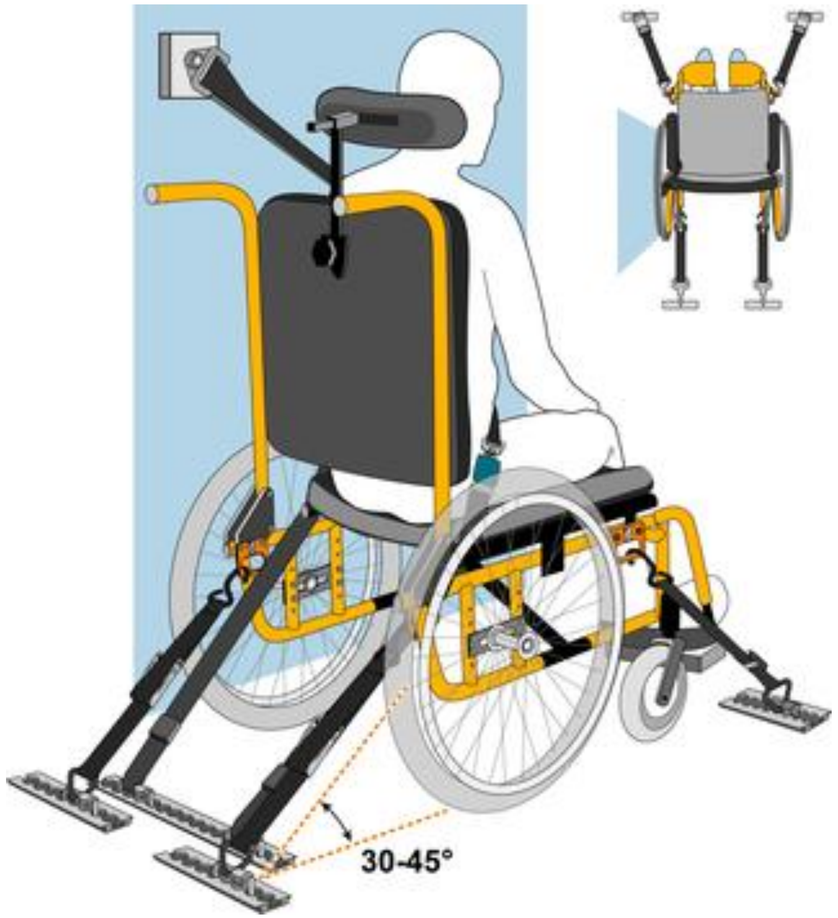
Lowered Floor Minivans

BraunAbility Fold Out Ramp

VMI In Floor Ramp-Chrysler

Full Size Vans with Lifts

Wheelchair Securement



[EZ-Lock]

BraunAbility Unoccupied W/C Restraint

[QStraint Retractable Straps]

RESNA Rehabilitation Engineering and Assistive Technology Society of North America

- https://www.resna.org/standards/wheelchairs-including-scooters/wheelchairs

ADED The Association for Driver Rehabilitation Specialists

ANSTSE Association of National Stakeholders in Traffic Safety Education

WC-19 wheelchair securement & seatbelt fit

Primary Versus Secondary Controls

Primary Steering Orthotics

Spinner Knob

Palm spinner

Quad Fork Spinner

Tri – Pin

Mechanical Steering Column Mounted Hand Controls

- Many different ways of operating acceleration
- Braking is always push forward towards the dash
- Normally on left side, right side is an option if needed

Sure Grip Push-Rock

Hybrid Hand Controls

- Maximizes leg room
- Additional Safety Feature- defaults to OEM operation
- Turns on with a switch that can be custom located in convenient spot for clients

Detroit Hand Controls

Floor Mounted Hand Controls

Veigel

Accelerator Ring

Darios by Kempf

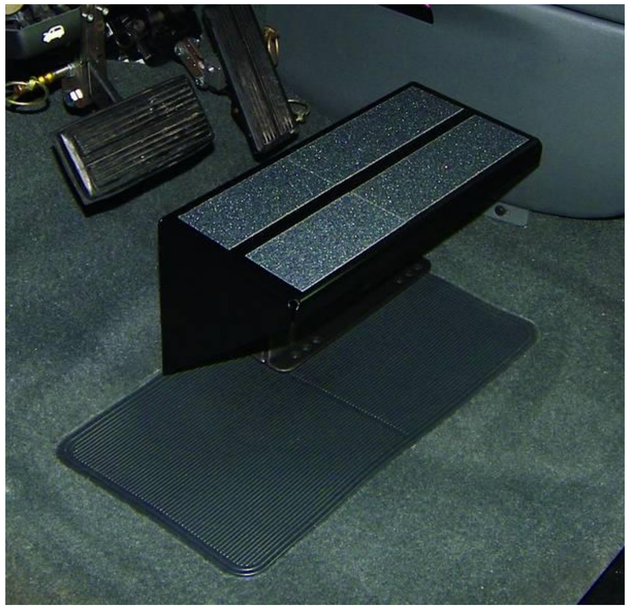
Pedal Guards

Hand Controls

Client Equipment Examples

Left Foot Accelerator

Pedal Extensions and Heel Shelf



Mechanical Secondary Control Options

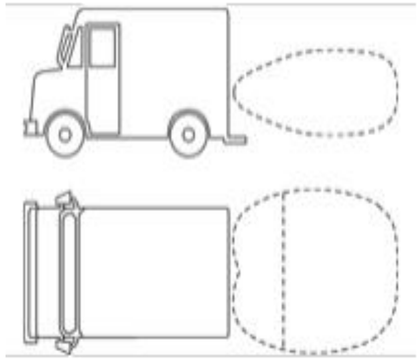
Secondary Controls Multi Function Spinners

Adaptive Mirrors

Autobahn mirror

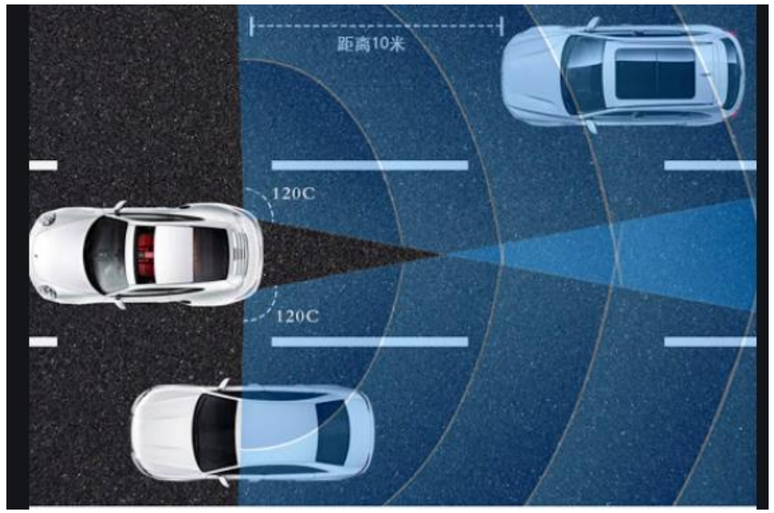
smart view mirror

Camera/Optional Detection Systems

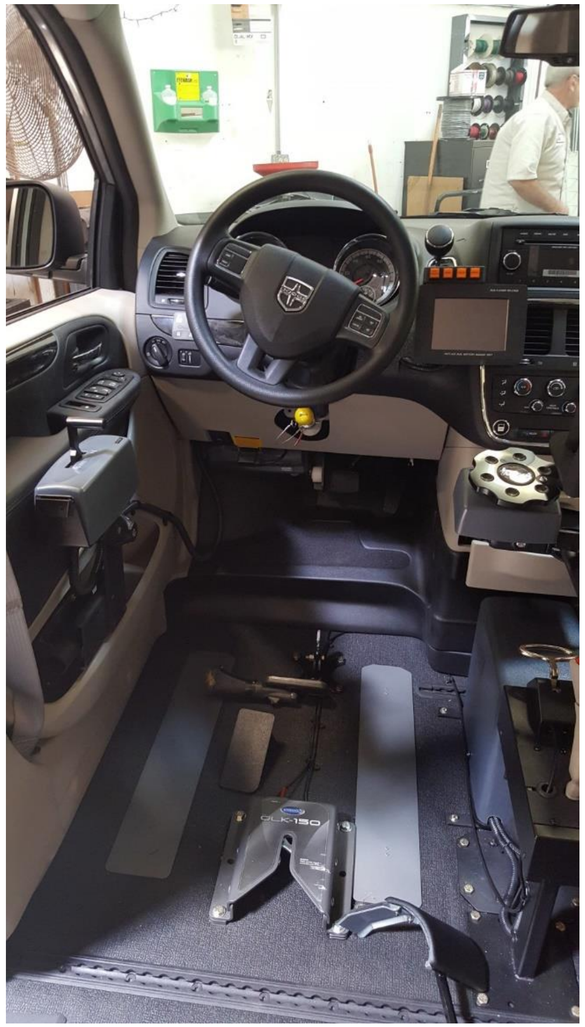


Echovision

Back up camera with monitor



High Tech Driving Systems



C5 Injury Joysteer System

Scott Driving System

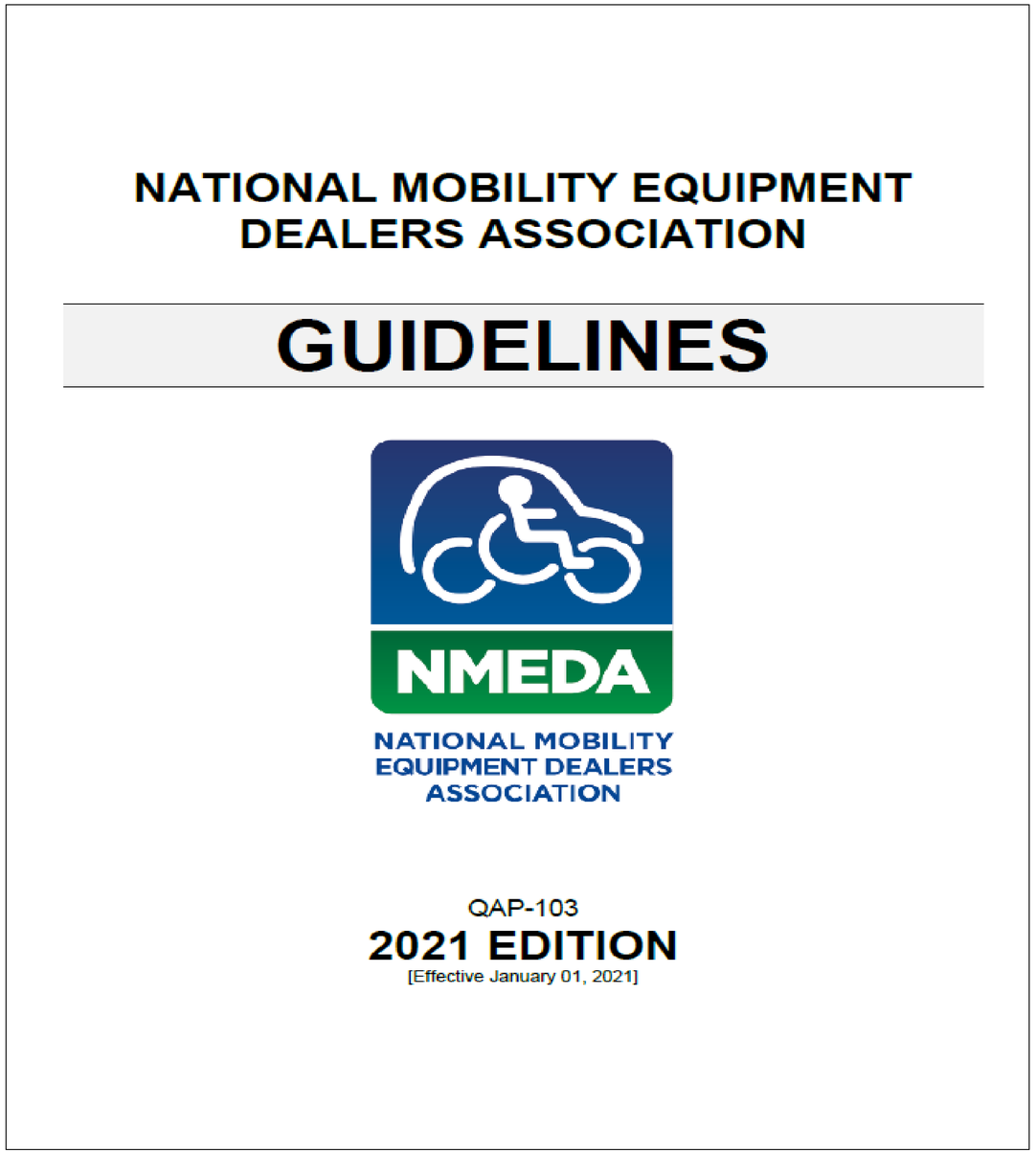
EMC AEVIT


NMEDA
NATIONAL MOBILITY
EQUIPMENT DEALERS
ASSOCIATION


NATIONAL MOBILITY EQUIPMENT
QAP
Quality
Assurance
Program
DEALERS ASSOCIATION

NMEDA Guidelines

https://nmeda.org/qap/guidelines/



Sure Grip Evaluator Set Up

Mobility Innovations Evaluator Set Up: Veigel Compact II and Veigel eClassic

EMC Evaluator Set Up

Paravan Evaluator Set Up

Pathway to Credentials & CDRS

Badges, Micro-credentials and the ADED gold standard

History

ADED established the credential of Certified Driver Rehabilitation Specialist (CDRS) with the first exam given in 1995.

The ADED Certification The ADED Certification Committee establishes education and experience criteria to qualify to sit for the exam.

education and

How do I take the exam?

What is a Driver Rehabilitation Specialist?

Programs

- **Mentor Program**
  ADED CDRS members are paired with mentees
  - Application required
  - Curriculum based
  - Formal program
  - CDRS can earn up to 14 contact hours

Conference Coach

- Informal program
- Introductions & Expo navigation
- Assist with seminar/workshop selections

Am I ready for the CDRS Exam?

- Pathway to the ADED gold standard
  - Identify badges that will benefit your practice
  - Work toward the micro-credential
- ADED Exam Prep tool
- Find a Mentor
- Attend ADED annual conference
- ADED Online Educational Portal
- Download and follow the Professional Development Plan

ADED The Association for Driver Rehabilitation Specialists

Let ADED be your compass

The badge and micro-credential program is designed to realize practitioner potential, improve practice, and enhance career development.

Driver Rehabilitation Educational Roadmap

What is a badge?

Provides an accolade that attests to:

- Qualifications
- Knowledge
- Skills within a relatively small scope of the practice of driver rehabilitation.

Badges may be:

- Stackable
- Accumulated overtime

What is a micro credential?

- Driver Rehabilitation Professional (DRP)
  - Completion of specific training courses
  - Equipped to provide service within basic and low-tech programs
  - Follows ADED's Best Practices Guidelines
  - Adhere to the ADED's Code of Ethics
  - Requires continuing education to ensure continued growth and current knowledge in the field.

How do we define the differences?

BADGE

- Successful demonstration of knowledge for given badge scope
- Some may be completed completely online, in some cases may be offered for live courses or workshops
- If there is a quiz component need to pass with 75% or better
- Application and fee
- Renewal requirements if membership lapses

MICROCREDENTIAL

- Successful completion of ADED vetted courses, university program, VA Driver Rehab course, or Mentor Curriculum
- May require additional courses
- Pass quiz with 75% or better
- Application and fee
- Valid for 2 years with continuing education requirements for renewal

ADED's Badges

Coming in 2023: Vision Badge

ADED credentials

Driver Rehabilitation Professional (DRP)

Certified Driver Rehabilitation Specialist (CDRS®)

Benefits of Badging and Credentialing

Your professional society's accolade of your qualifications, knowledge and skills

Marketing of your skills

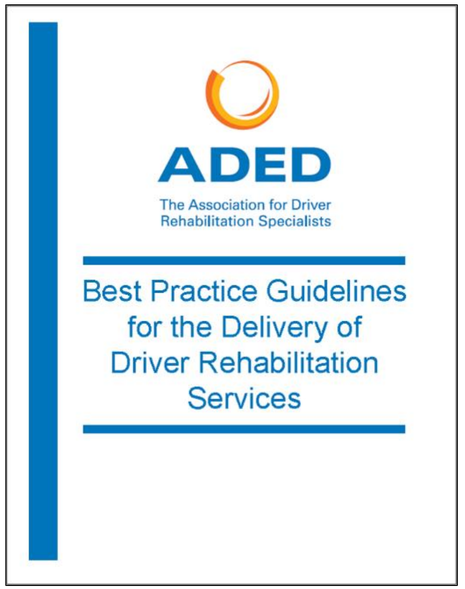
Demonstrates mastery of professional competencies

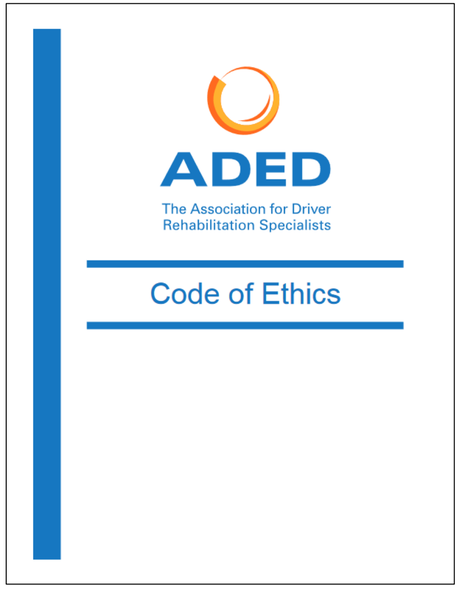
Demonstrates a professional career path

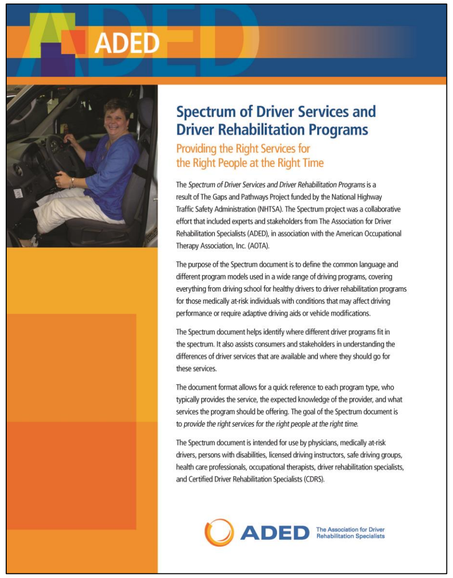
Pathways for Education & Credentialing in Driver Rehabilitation

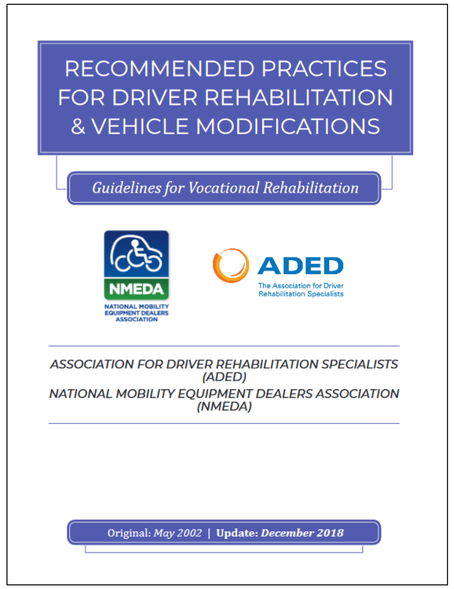
ADED RESOURCES

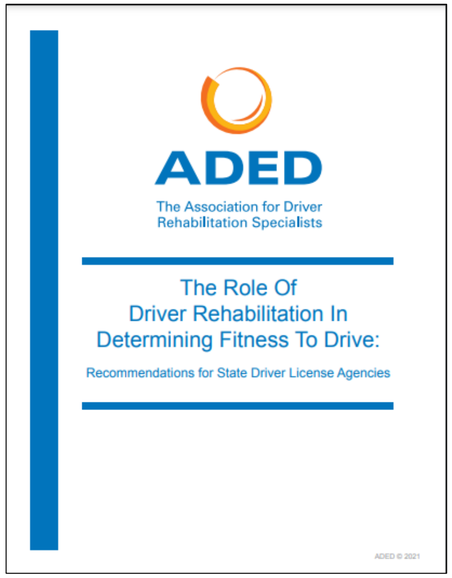
ADED Guiding Documents











The Best Practices Guidelines are divided into 13 Sections

1. Client Intake
2. Clinical Visual Screen
3. Clinical Physical Assessment
4. Clinical Cognitive/Perceptual Screening
5. Behind-The-Wheel Evaluation
6. Behind-The-Wheel Training/Intervention
7. Vehicle and Equipment Assessment for Drivers
8. Vehicle and Equipment Assessment for Passengers
9. Documentation
10. Prescription/Equipment Recommendation Form
11. Final Fitting
12. Licensing
13. Quality Improvement

Code of Ethics

Demonstrating	Demonstrating Concern for the Well-Being of Clients Served
Respecting	Respecting the Rights of Clients Served
Fostering	Fostering Excellence in the Field of Driver Rehabilitation by Achieving and Maintaining a High Standard of Competence
Complying	Complying with Laws and Association Precepts Governing the Driver Rehabilitation Profession
Providing	Providing Accurate Information Regarding Driver Rehabilitation Services and Qualifications
Treating	Treating Colleagues and Other Professionals with Fairness, Discretion, and Integrity
Promoting	Promoting Greater Understanding and Awareness of Driver Rehabilitation Issues through Communication to Those in Rehabilitation, Healthcare, and Education and to the Public

Spectrum of Driver Services and Driver Rehabilitation Programs

PROVIDING THE RIGHT SERVICES

FOR THE RIGHT PEOPLE

AT THE RIGHT TIME

Guidelines for Vocational Rehabilitation

For Driver Rehab Professionals

- Credentials
- Experience

For Mobility Equipment Dealers

- NMEDA QAP-accredited
- Categories of QAP accreditation

Service process

- Driver evaluation
- Driver training
- Vehicle consultation
- Vehicle prescription
- Vehicle Mechanical inspection
- Functional inspection, final fitting, and test drive

Welcome to the Driver Rehab Program Start-up Tool Kit

It is ADED's goal to support the growth of driver rehabilitation and the safe delivery of services. In support of this goal ADED has compiled this tool kit to provide information to its members to start a new driving program or help improve and grow an existing program. The Tool Kit is separated into seven main categories with subcategories in each.

Education and Training

Live education courses

E-learning courses

Recommended Reading and Resources

Badge & Micro-credential Program

Motor Vehicle Forms

Client Intake

Client Consents

Discharge Summary

Documentation

Initial Clinical Assessment

Vehicle Modification Prescription

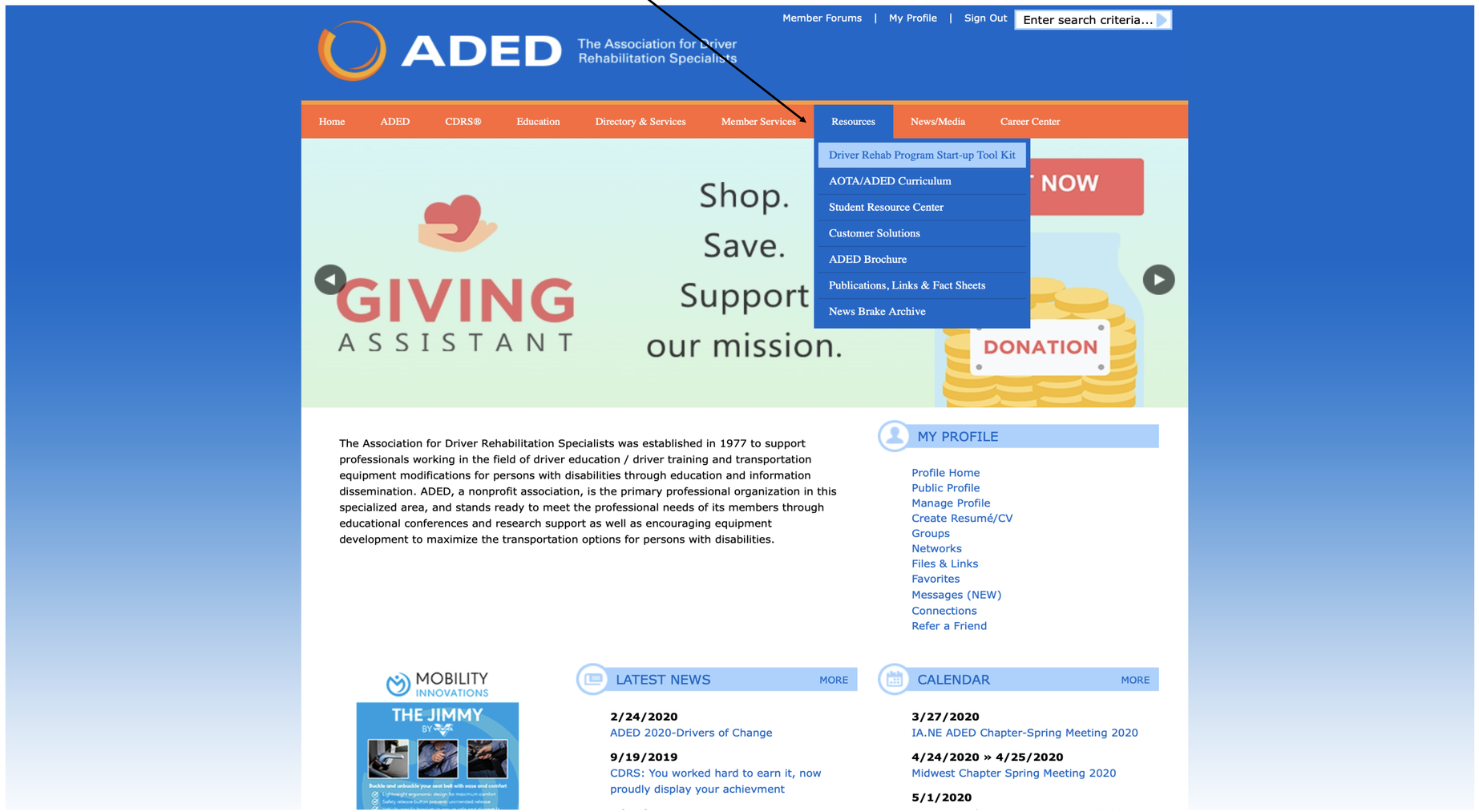
Daily Progress Notes

Behind the Wheel Assessment

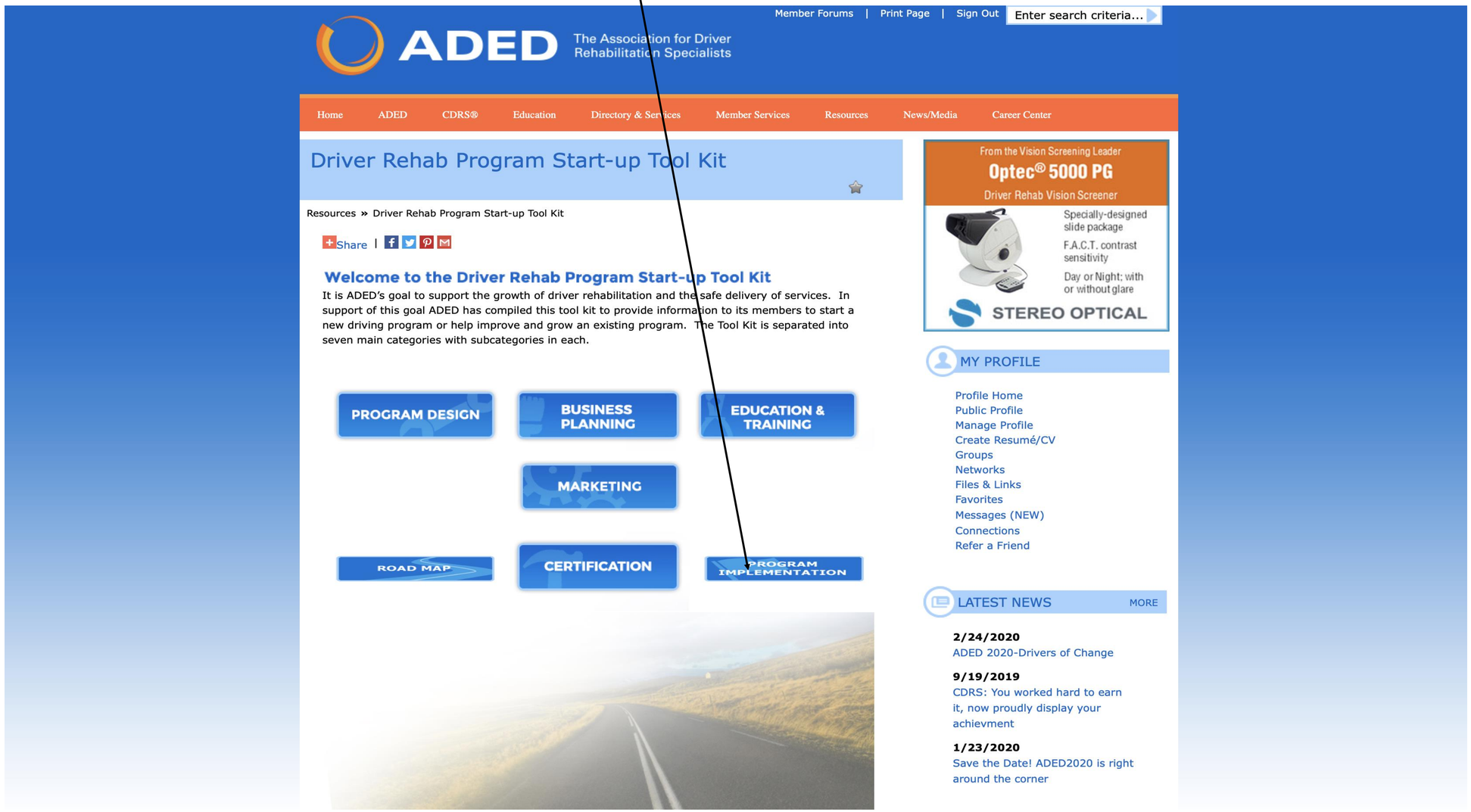
How to locate documentation resources in the ADED Tool Kit

Click on Resources

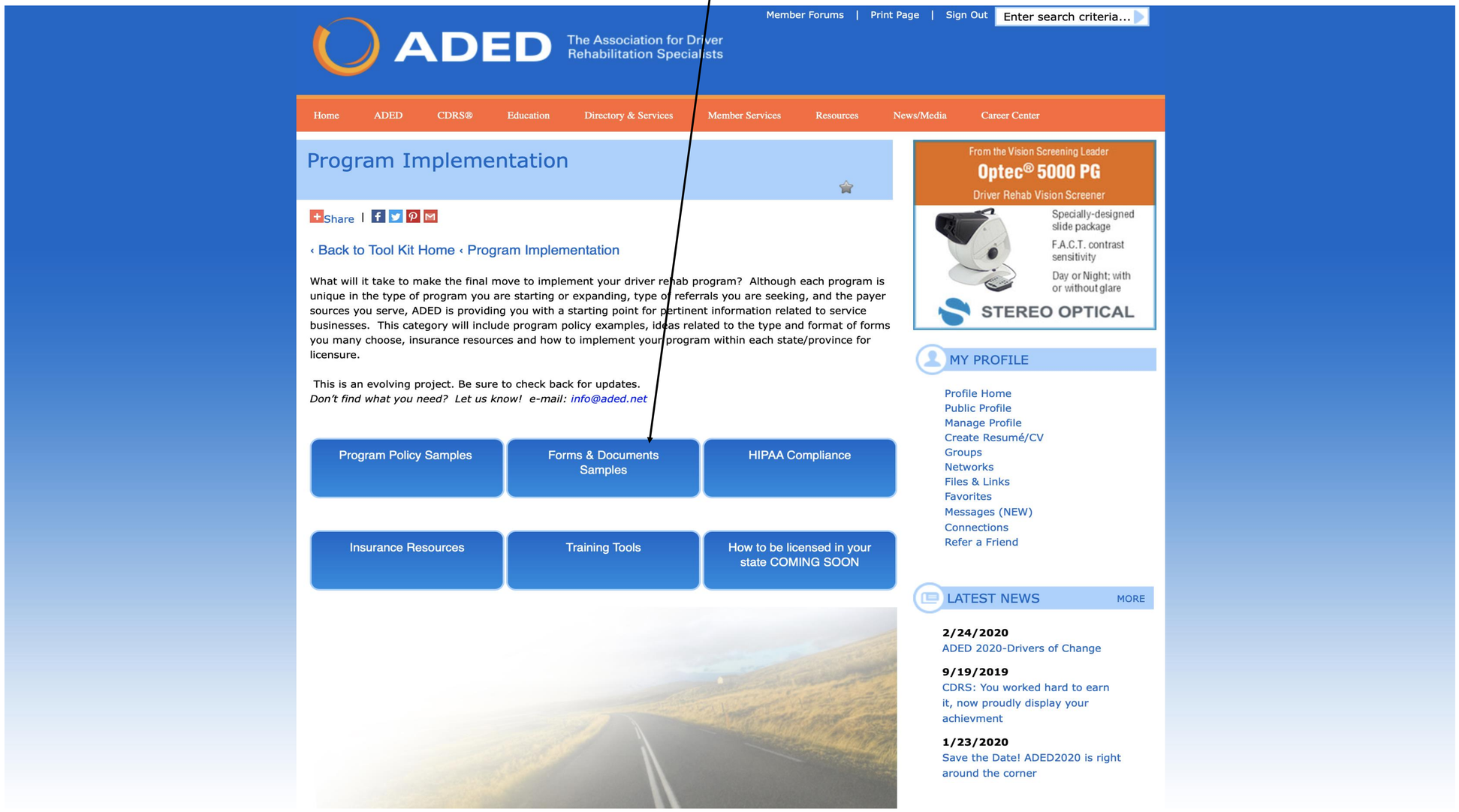
Then Click on Driver Rehab Program Start-Up Tool Kit



Click on Program Implementation



Click on Forms & Documents Samples



Forms & Document Samples

Share |

‹ Back to Tool Kit Home ‹ Program Implementation ‹ Forms & Document Samples

Forms typically accompany established policies and procedures, can be required by regulatory agencies, facility protocol, or referral sources. We have provided samples of forms typically found in a driver rehabilitation program.

This is an evolving project. Be sure to check back for updates.
Don't find what you need? Let us know! e-mail: info@aded.net

- Recommended Consent Forms (.pdf)
- On-Road Evaluation Form Sample (.pdf)
- Pre-Driving Evaluation Form Sample (.pdf)
- Client Intake Form Sample (.pdf)
- Community Participant Letter Sample (.pdf)
- Physician Referral Request Letter Sample (.pdf)
- Physician Referral for Driver Evaluation/Training Form Sample (.pdf)
- Driver Evaluation Enrollment Form Sample (.pdf) COMING SOON
- Driver Evaluation Fact Sheet Sample (.pdf)
- New Client Preappointment Letter Sample (.pdf)
- Client Records Checklist Sample (.pdf)
- Medical History Intake Form Sample (.pdf)
- Driver Evaluation Request Form Sample (.pdf)
- Contract, Consent, Release of Information Form Sample (.pdf)
- Physician Referral Form Sample (.pdf)
- Driver Evaluation Authorization Form Sample (.pdf)
- OT Driving Readiness Tool Form Sample (.pdf)

MY PROFILE

- Profile Home
- Public Profile
- Manage Profile
- Create Resumé/CV
- Groups
- Networks
- Files & Links
- Favorites
- Messages (NEW)
- Connections
- Refer a Friend

LATEST NEWS MORE

2/24/2020
ADED 2020-Drivers of Change

9/19/2019
CDRS: You worked hard to earn it, now proudly display your achievment

1/23/2020
Save the Date! ADED2020 is right around the corner

CALENDAR MORE

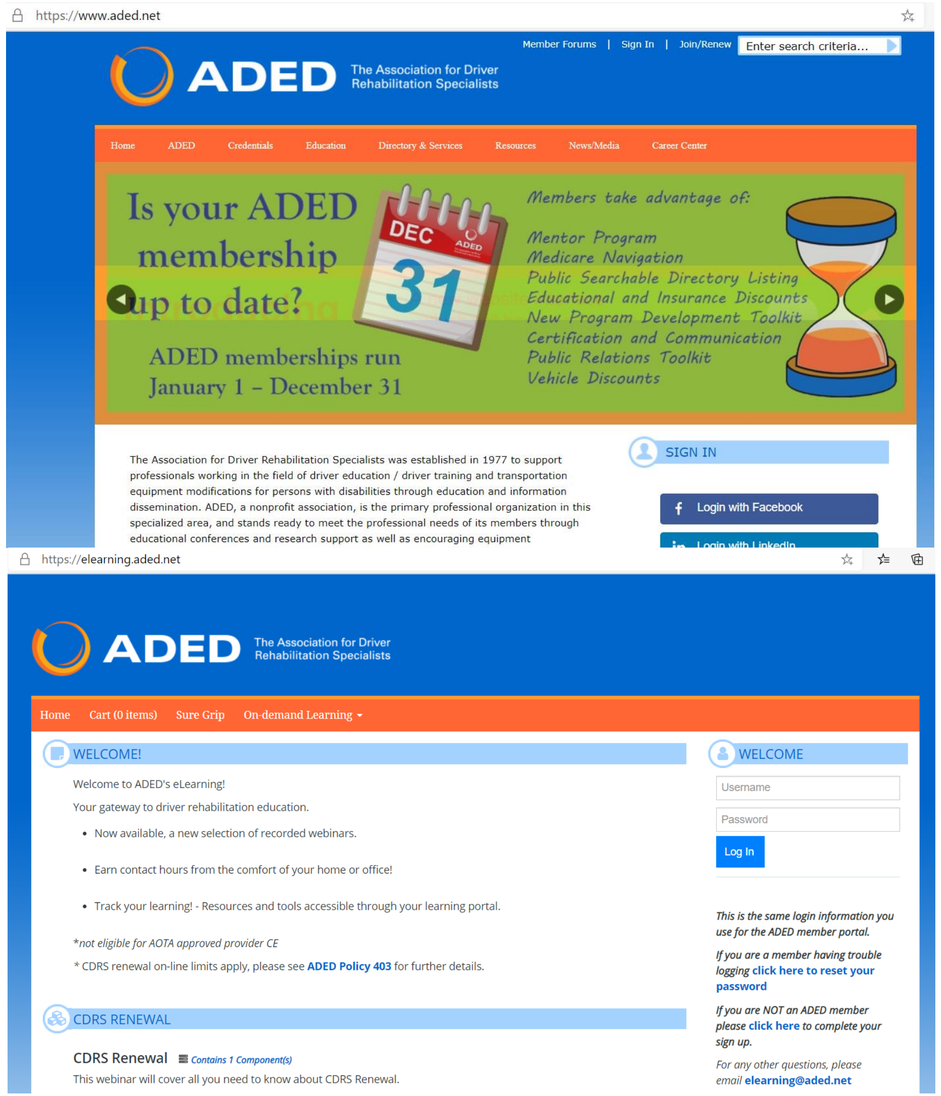
3/27/2020
IA.NE ADED Chapter-Spring Meeting 2020

4/24/2020 » 4/25/2020
Midwest Chapter Spring Meeting 2020

5/1/2020
KY.TN.WV Chapter Meeting-

Resource Locations

- ADED documents on the website – aded.net [Policy & Procedure]
- ADED documents in the LMS – elearning.aded.net [Members Resources]
- NMEDA Guidelines – nmeda.com



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