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SHRS: Rehabilitation Science and Technology

Adaptive Driving Program (ADP)

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TBI & Driving: Potential Areas of Concern

Area of Impairment	Potential Driving Errors	Possible Safety Concerns
Attention	Missing stop signs, traffic signals, pedestrians or vehicles while attending to something else	Failure to respond to hazards or traffic controls
Divided Attention	Difficulty monitoring traffic while following directions or navigating	Missed hazards, delayed decisions, lane deviations
Processing Speed	Delayed braking, hesitation at intersections, slow responses to changing traffic	Reduces time available to avoid collision
Executive Functioning	Poor planning, difficulty anticipating turns, failure to adjust actions as conditions change	Unsafe maneuvers, late turns, inappropriate speed
Judgment and Decision Making	Incorrectly determining right of way or unsafe gap acceptance	Intersection confusion and collision risks

Potential Areas of Concern Continued

Area of Impairment	Potential Driving Errors	Possible Safety Concerns
Visual Scanning	Looking straight ahead without checking side streets, mirrors or cross traffic	Failure to detect approaching vehicles or pedestrians
Memory and Learning	Forgetting instructions, traffic rule or previously practiced skills	Repeated errors and inconsistent driving performance
Self Awareness and Insight	Failing to recognize errors or overestimating driving abilities	Unsafe decisions and limited self correction
Behavioral Regulation	Impulsivity, frustration, risk taking	Sudden maneuvers, unsafe following distance, aggressive responses
Fatigue	Increasing errors as driving continues	Reduced attention, inconsistent performance, slower responses

Does the individual have to have a driver's license or permit to be evaluated by the ADP?

No.

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Services we provide (Class C)



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- A Comprehensive Driving Evaluation
- Driver Training
- Adaptive Equipment Training
- Vehicle Modification Evaluation (SCI)

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Comprehensive Driving Evaluation

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Clinical Assessment (approx. 2 hours)

Vision

- Visual acuity
- Peripheral Field Vision
- Depth Perception
- Color Perception
- Color Recognition
- Eye movement

Visual Perceptual/Cognition

- Attention
- Executive Functions
- Visual Perceptual Skills
- Memory
- Orientation
- Mental flexibility

Motor

- Strength
- Range of Motion
- Sensation
- Reaction Time
- Physical Endurance

Behavior/Communication

- Impulsivity
- Expressive/ Receptive

- **Knowledge of Traffic Signs and Traffic Laws**
- **IADL Status**

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Visual Perceptual & Cognitive Assessments

Assessment	What is Being Assessed	Relevance to Driving
CTMT	Visual scanning, sustained and divided/alternating attention, processing speed, sequencing, cognitive flexibility, executive function	Ability to efficiently scan the driving environment, shift attention between competing stimuli, process complex roadway information, maintain task focus, adapt responses to changing traffic conditions
Snellgrove Maze	Planning, visuospatial organization, executive functioning	Ability to plan and organized actions in complex traffic situations
Rey Osterrieth Complex Figure	Visuospatial organization, planning, visual memory	Ability to organize and recall complex visual information
Short Blessed Test	Orientation, memory, concentration	Screening for general cognitive impairment that might affect driving

Visual Perceptual & Cognitive Assessments Continued

Assessment	What is Being Assessed	Relevance to Driving
Brief Cognitive Assessment Tool (BCAT)	Attention, memory, executive functioning, orientation	Screens cognitive functions involved in following directions, recalling driving procedures, interpreting roadway information, and making decisions in changing traffic conditions.
Motor Free Visual Perception Test	Visual discrimination, spatial relationships, visual memory, figure ground perception	Interpretation of roadway marking, signs and spatial relationships
Beery VMI	Visual-motor integration, visuospatial organization, and coordination of visual perception with fine motor output	Coordinating visual input with motor responses
Traffic Signs & Traffic Law		

On-road assessment | (approx. 2 hours)

Operational	Steering, acceleration, braking, lane position

Potential Errors: Delayed braking, inconsistent speed, poor steering coordination, pedal selection errors

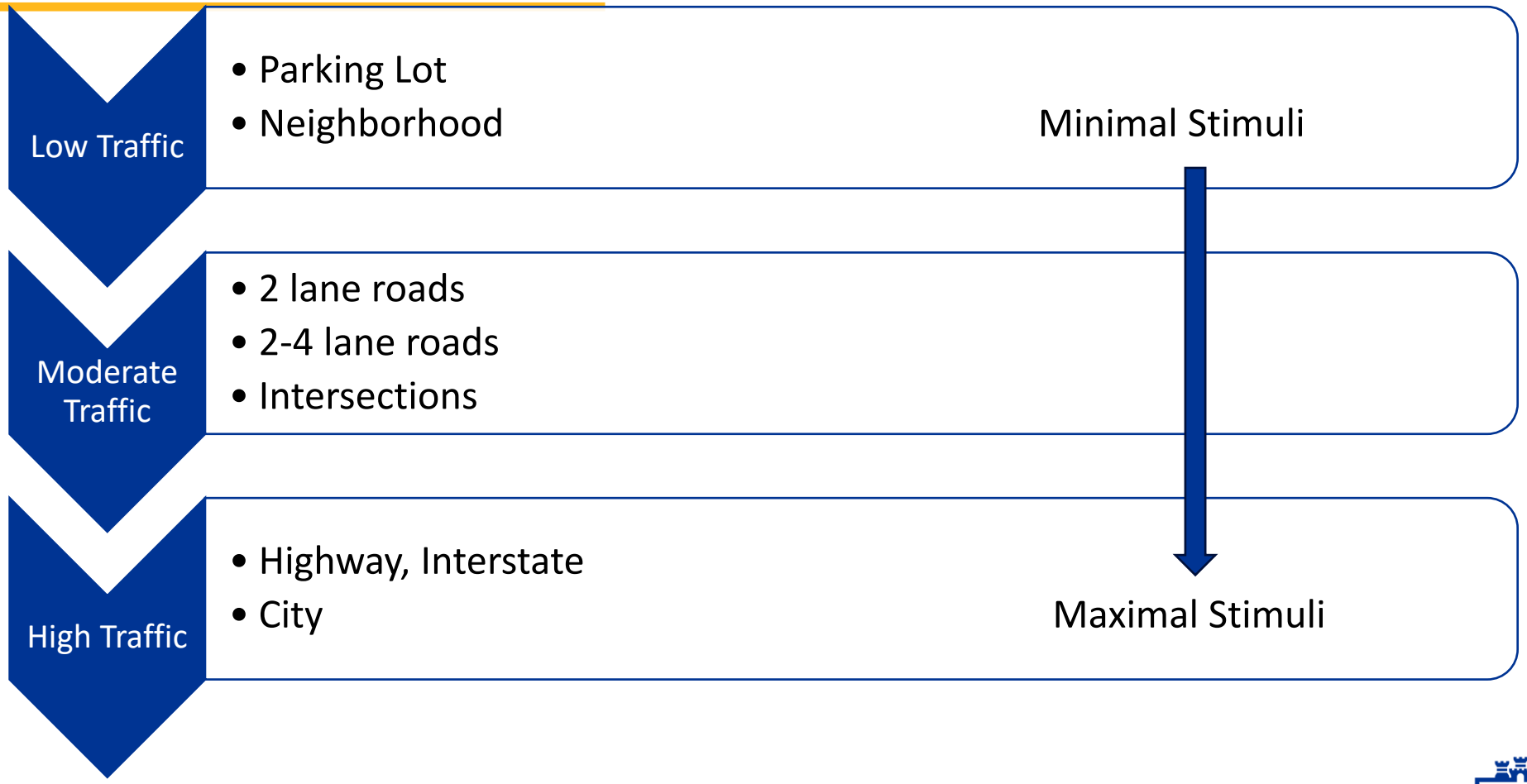
Tactical	Intersections, turns, traffic, lane changes, hazards

Potential Errors: Missing stop signs, misunderstanding right of way, inadequate scanning, unsafe turning

Strategic	Navigation, route planning, unfamiliar destinations

Potential Errors: Difficulty following routes, becoming overwhelmed in unfamiliar areas, decreased anticipation, unable to adjust driving due to environmental conditions

On Road Assessment



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Training

Structured instruction, repetition, graded progression with ongoing assessment of the individual's ability to retain and consistently apply learned skills in real-world driving situations

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- Training occurs at the clinic
- Scheduled for 2 hours, once a week
- No set/required number of hours
- Based on client confidence, competence and safety in addition to our confidence in the client's ability to safely use adaptive equipment (if applicable)
- Prepare client for PennDOT road test (if applicable)
- Variety of adaptive equipment to meet individual needs (if needed)

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Who can refer? When should I refer?

How do I refer?

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Anyone can refer, at the appropriate time

- Doctor
- PA
- Nurses
- OT/PT/SLP
- Social worker/case management
- Family/Caregivers
- Client

Referral Process

- **Contact the Adaptive Driving Program**
  - 412-383-2429
  - mea214@pitt.edu
  - Online inquiry: Submit a referral/Get Evaluated
- **Client needs to return:**
  - Intake form (sent electronically to the client or hard copy if requested)
  - Payment (cost dependent on clinical assessment vs comprehensive)
  - Physician referral/prescription (“Driving evaluation and training as needed”)- faxed to us at 412-648-0506, no Epic
- **Upon receipt of these items we will then scall to schedule the client**
  - Typically about a 2 week wait to be scheduled

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Questions????

Additional Information

- https://adaptivedrivingprogram.pitt.edu/

- When in doubt or if you have a question; give us a call or send us an email! We are more than happy to help!
  - mea214@pitt.edu
  - 412-383-2429

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