

# INFORMATION SHEET

DriveABLE

Driven by Research



Assessing the  
Medically At-Risk Driver

## Descriptions of the DriveABLE™ In-Office Cognitive Tasks

The six tasks listed below make up the DriveABLE™ In-Office assessment battery. They are computer presented; however, no computer expertise is required. The only responses that are required of the client are ‘touching the screen’ or ‘pressing a button’. These responses required are no more difficult than touching an ‘X’ on a piece of paper. A DriveABLE™ trained and certified assessor is with the client providing detailed instructions, encouragement and guidance throughout the assessment session. The assessment is designed and has been validated to be effective for all drivers regardless of age or level of cognitive impairment. Performance is age normed insuring that clients of all ages are fairly evaluated. The descriptions below are intended to facilitate discussions with the client and the family members by providing a brief description of the task, followed by a description of the relevance of that task for driving.

### Motor Speed and Control

- One task will evaluate how quickly the client can respond by having him or her touch a shape shown on the screen as quickly as possible after it appears.

Driving sometimes requires quick responses to avoid dangerous situations. This task measures the time to respond to an event that occurs in an unpredictable location. Shifting of attention, response speed, and accurate movements all are involved in good performance.

### Span of Attentional Field Task

- The second task examines how well the client can notice things that happen off to one side or another while attention is focused straight ahead.

While we are attending to the road ahead and responding to that information, it is important that we are able to identify other events that could occur anywhere in front of us. Some things (e.g., stop lights) might occur above our line of sight, other things (e.g., pedestrians, road signs, route landmarks) can be on either the left or right. This task engages the client’s attention straight ahead and measures the ability to respond to visual events that occur in other places.

### Spatial Judgment and Decision Making

- The third task looks at judgment and decision making abilities that are important for making safe left turns or crossing a stream of traffic.

Turns, merges, and crossing a stream of traffic are the driving maneuvers associated with the highest crash rates for many drivers. In order to make a safe left turn, several complex judgments and decisions need to be made: The driver must judge the speed of oncoming traffic, judge the size of the gap between oncoming vehicles and compare that against how quickly his or her own vehicle can accelerate, and decide when to accelerate to get between vehicles. The complex judgment task requires all of these judgments and decisions.

### Speed of Attentional Shifting

- The fourth task looks at how quickly the client can shift attention from one thing to another.

A driver often needs to shift attention from one thing (e.g., road signs) to another (pedestrians). The attention shifting task presents events that ‘grab’ a person’s attention and the important event the client is to respond to occurs either at that location or another location. This allows a measurement of the ability of the client to disengage attention from one location and refocus it on another location and respond appropriately.

**Executive Function**

- The fifth task looks at how well the client can hold a couple of things in memory while responding to other things.

The driving task often requires that we do several things at the same time. Sometimes even situations drivers think of as commonplace may, in fact, involve the coordination of quite complex mental and physical activities. For example, while driving on the highway, there may be the need to steer the vehicle, attend to route signs, retrieve route information from memory, monitor the speed and direction of other vehicles and make judgments about the implications of those vehicle paths for our own actions. Flexible and effective control of mental abilities is very important and this task provides a measure those abilities.

**Identification of Driving Situations**

- Finally, a set of short videos of real driving scenes will be shown and the client will be asked to point out the dangerous situation or what they should do if they were in that situation.

A set of short videos of real driving scenes are shown. For some videos, the client is to identify the dangerous situations. For other videos, the person is to identify the driving action that needs to be taken for safety or to avoid a crash. Because the driving scenes are shown in real time, the task provides information about the person's interpretation of driving situations in the context of the speed of traffic flow.