



# DriveABLE™



## Who Does DriveABLE™ Assess?\*

A number of medical conditions can result in functional impairments that negatively affect driving performance. The outcomes of medical conditions can be classified either as Episodic or Persistent.

### Episodic Outcomes

With Episodic outcomes (e.g., an epileptic seizure, a hypoglycemic reaction), the event is, most often, sporadic and unpredictable, and lasts for a short duration. There, generally, is no question that when the event occurs, the individual is not competent to drive. The problem is that the event is unpredictable. Therefore, decisions about continued driving need to be policy-based decisions using estimated risk to the person and society supplemented by clinical judgment considering compliance to medications, co-morbidities, and other relevant information.

### Persistent Outcomes

Unlike the Episodic outcomes of medical conditions, Persistent outcomes are more stable and enduring, and thus can be measured. Because the debilitating effects can be measured, the DriveABLE assessment is appropriate to assess whether the effect(s) of the illness has reduced fitness-to-drive to an unsafe level.

### Episodic and Persistent Outcomes

Some chronic medical conditions can have both episodic and persistent effects. The list on the back includes chronic medical conditions that have episodic and/or persistent outcomes that have been found, through research, to be associated with a higher risk of crash and/or have been associated with cognitive impairment and/or significant functional impairments (visual, cognitive) of relevance for driving. Note: Other possible conditions may not appear on the list because of a lack of research into the effects of the condition on driving performance.



Consensus guidelines formulated by consideration of the research evidence and appropriate experts provide state of the art guidance, which may need to be personalized in terms of co-morbidities, compliance to treatment, and other relevant factors.

When the driving relevant outcome of the medical condition is persistent, the functional outcome of the medical condition is measurable. When there are enduring physical impairments that make it unlikely the person can safely operate a motor vehicle, it may be possible to adapt the vehicle to accommodate the impairment. Driving competence should then be evaluated by an independent driving evaluator.

When there are cognitive impairments and/or minor physical impairments, an appropriate and effective driving evaluation provides the most direct information about the driver's competence. A scientifically validated driving evaluation provides the best evidence, with clinical judgment evaluations providing the next level of evidence.

\* Adapted from Dobbs, B. (2005). Medical conditions and driving: A review of the scientific literature (1960-2000). Department of Transportation, National Highway Traffic Safety Administration Project DTNH22-94-G-05297. Washington, DC: National Highway Traffic Safety Administration.



## Red Flag Medical Conditions

### I. Visual Impairments/Illnesses

1. Low vision (vision ranging from 20/200 to 20/50)
2. Cataracts
3. Diabetic Retinopathy
4. Glaucoma
5. Retinitis pigmentosa
6. Monocular Vision (especially right eye blindness)
7. Macular degeneration
8. Nystagmus
9. Visual field defects

### II. Cardiovascular Disease

1. Cardiac Arrhythmias -assessment recommended if associated with cerebral ischemia (e.g. Paroxysmal Arrhythmias such as non-sustained paroxysmal Ventricular tachycardia/ paroxysmal supra ventricular tachycardia / paroxysmal atrial flutter or fibrillation: Sinus Node Dysfunction)
2. Artificial Cardiac pacemakers if associated with cerebral ischemia
3. Hypertrophic cardiomyopathy if associated with cerebral ischemia
4. Congestive Heart Failure if associated with cerebral ischemia
5. Valvular Heart Disease if associated with cerebral ischemia

### III. Cerebrovascular Disease

1. Cerebrovascular Accident (Stroke)
2. Transient ischemic attacks
3. Head Injury
4. Seizures

### IV. Respiratory Diseases

1. Chronic Obstructive Lung Disease - if associated with respiratory failure resulting in cognitive impairment due to generalized hypoxia

### 2. Respiratory failure

### V. Renal Disease

1. Chronic Renal Failure - if associated with cognitive impairment

### VI. Diseases of the Nervous System

1. Narcolepsy
2. Sleep apnea

### VI. Metabolic Diseases

1. Hypothyroidism - if condition results in cognitive deficits
2. Diabetes - the chronic effects of diabetes (e.g., diabetic retinopathy, cardiovascular disease, etc. are listed separately)

### VII. Dementia

1. Progressive dementia (e.g., AD, MID)

### VIII. Psychiatric Disease

1. Schizophrenia
2. Personality Disorder
3. Chronic Alcohol Abuse

### IX. Medications

1. Anti-depressants (the older tricyclics such as amitriptyline, imipramine)
2. Anti-histamines (the older anti-histamines)
3. Any drug that has prominent central nervous system effects (e.g., analgesics, some anti-hypertensives, sedatives, hypnotics, anxiolytics, benzodiazepines, stimulants)

### X. Other

1. Multiple Sclerosis
2. Parkinson's Disease
3. Falls