

ORGANIZATION NEWS

Information/Education Page

Driving After Traumatic Brain Injury



Driving is an important part of a person's independent lifestyle. Because we take our driving skills for granted, it is easy to forget that driving is the most dangerous thing we do in our everyday lives.

A traumatic brain injury (TBI) can affect the skills needed to drive safely. If and when an injured person may safely return to driving should be addressed early in recovery.

How can a TBI affect driving ability?

A brain injury can disrupt and slow down skills that are essential for good driving, including:

- Maintaining a constant lane position.
- Having accurate vision.
- Maintaining concentration over long periods of time.
- Memory functioning, such as recalling directions.
- Figuring out solutions to problems.
- Hand-eye coordination.
- Reaction time.
- Safety awareness and judgment.

Studies indicate that even mild thinking difficulties, which may not be recognized by the injured person, can increase the risks of driving.

Warning signs of unsafe driving include:

- Driving too fast or too slow.
- Not observing signs or signals.
- Judging distances inaccurately when stopping or turning.
- Slow decision-making.
- Becoming easily frustrated or confused.
- Having accidents or near-misses.
- Drifting across lane markings.
- Getting lost easily, even in familiar areas.

How often do individuals with TBI return to driving?

Between 40% and 60% of people with moderate to severe brain injuries return to driving after their injury. To lessen the risk of crashes, people with TBI may place limitations on their driving habits. They may drive less frequently than they did before the injury or drive only at certain times (eg, during daylight), on familiar routes, or when there is less traffic.

Post-TBI seizures may be a barrier to driving. States often require that a person be free of seizures for up to a year before resuming driving. People who want to return to driving need to check the laws in their state.

Driving evaluations and training

A driving evaluation is a crucial step in determining a person's ability to drive after a TBI. Research studies indicate that most TBI survivors are not thoroughly evaluated for driving skills before they begin driving after injury. This may put TBI survivors at a high risk for accidents.

Although there is no standardized assessment test or process, a typical driving evaluation has the following 2 parts:

- **Preliminary evaluation.**
 - A review of cognitive (thinking) abilities, including reaction time, judgment, reasoning, and visual-spatial skills. Recommendations regarding the need for adaptive equipment and additional skills training are based on the results of the evaluation.
- **On-the-road.**
 - A test of the mechanical operation of a vehicle, either using a driving simulator or driving a vehicle on the roadway in the presence of an evaluator. This evaluation is used to assess safe driving skills in various traffic environments.

Current research indicates that many individuals with TBI can become competent, safe drivers when given the proper training. Training serves to improve specific driving skills. Sometimes this involves practicing driving under the supervision of a driving evaluator or focusing on specific skills, such as rapid understanding of visual information. Evaluations and training are often provided by professionals certified through the Association for Driver Rehabilitation Specialists. A list of certified professionals may be found on the Association for Driver Rehabilitation Specialists website (<http://www.driver-ed.org>).

Vehicle modifications

If an individual with TBI has physical disabilities but has well-preserved cognitive functions, the individual may be able to resume driving with adaptive equipment or other modifications to the vehicle. Modifications could include:

- Hand-controlled gas and brake systems.
- Spinner knobs for steering.
- Left foot accelerator.
- Lifts for entering and exiting the vehicle.

Legal and insurance considerations

A person who wishes to resume driving must have a valid driver's license. In some states, there must be a formal evaluation performed by a licensing bureau before a TBI survivor can resume driving. Always check local regulations.

Other transportation options

Accessible and reliable transportation is the most important part of community integration after a TBI. If a person is not able to drive, there may be other options for transportation. Family members can provide transportation, or public transportation can be used. Some communities provide public transportation specifically for disabled riders.

Step-by-step: should you be driving?

- Discuss your ability to drive with your health care provider and family members.

- Get a professional evaluation to determine your driving ability.
- Based on your evaluation, you may be allowed to drive, need training or vehicle modification before returning to driving, or will need to use other transportation options.

Disclaimer

This information is not meant to replace the advice from a medical professional. You should consult your health care provider regarding specific medical concerns or treatment.

Source

Our health information is based on available research evidence and represents the expert consensus opinion of the TBI Model Systems directors.

Authorship

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