

## DRIVING WITH DEMENTIA: UNDERSTANDING THE SAFETY RISKS

This fact sheet may help you understand the safety risks of driving with dementia.

Neurologists from the American Academy of Neurology are doctors who identify and treat diseases of the brain and nervous system. The following evidence-based information\* is provided by experts who carefully reviewed all available scientific studies on the safety risks of driving with dementia.

If you have dementia and still drive, consider the risks carefully. Keep in mind that unsafe driving can stem from poor thinking ability. Nearly all people with dementia must eventually give up driving. Preparing now will make the transition easier.

### What is dementia?

Dementia is a brain disorder. It leads to loss of brain function. Dementia affects functions such as memory, language, and thinking ability. Judgment and behavior also are affected. Dementia usually occurs in people over age 60. The disease risk increases with age.

Most types of dementia are degenerative. This means the problem gets worse over time. The problem usually cannot be reversed. The most common type of dementia is Alzheimer's disease. Another type, Lewy body disease, also is very common. A third type is vascular dementia, caused by many small strokes (brain attacks). Other common causes include Parkinson disease and multiple sclerosis. For some people, dementia can be reversed. In these cases, causes include metabolic disorders, medication side effects, and poor nutrition.

### I have dementia. My doctor says I should be screened for unsafe driving risk. What tests are helpful?

There are many tests that help identify the risk of unsafe driving. These include psychological tests of thinking ability. These are given in an interview format. One test is called the Clinical Dementia Rating (CDR) scale. This test measures several brain functions. Examples are memory, judgment, and problem solving. Responses are ranked from 0 (no dementia) to 3 (severe dementia). The test can define very mild dementia (a score of 0.5) and mild dementia (a score of 1). Strong evidence shows that the CDR helps identify people with dementia at risk for unsafe driving. However, many people who score 0.5 or 1 can still drive safely. Their driving ability can be measured by an on-road driving test.

Another test of thinking ability is the Mini-Mental State Examination (MMSE). Like the CDR, this test measures several brain functions. Examples are memory, language, and spatial ability. Scores below 25 show some degree of dementia. These range from mild (21 to 24 points) to severe (9 points

or lower). Weak evidence shows that the MMSE may help identify people with dementia at risk for unsafe driving. However, it is not clear what score clearly defines the risk.

Neuropsychological tests also are available. These look at specific aspects of thinking ability. They examine how thinking ability affects behavior. They also provide scores for brain functions. These tests may help to show if a person has dementia, and may help detect the disease severity. However, there is not enough evidence to show if they help identify unsafe driving risk due to dementia.

Keep in mind that identifying unsafe driving risk is difficult. No single test result will reveal a problem. Rather, many information sources are needed.

### I have dementia. My doctor says I should monitor my driving. Is this necessary?

Detecting unsafe driving risk in anyone is a challenge. There are many unsafe drivers who do not have dementia. Also, unsafe drivers don't always have a history of accidents. However, driving habits might help reveal a problem.

There are important warning signs of declining driving ability. This decline might be linked to dementia. The obvious signs are accidents and tickets for speeding or reckless driving. Weak evidence shows a history of tickets or crashes may help identify people with dementia who are at risk. Aggressive or impulsive behavior is also a concern. This may be shown in unsafe or aggressive driving habits. Weak evidence shows aggressive or impulsive personality traits may signal a problem.

Yet another sign is restricting one's own driving. Some people with dementia avoid driving at night or in the rain. These people may sense they are losing driving ability. They may fear their driving would endanger themselves or others. Weak evidence shows that people with dementia who report avoiding driving may pose a risk. There also is weak evidence that driving less than usual may signal a problem.

## I have dementia, and I am a good driver. Why should I worry about my driving?

Some people with dementia can drive safely for a time. For this reason, it is hard to identify who should no longer drive. A dementia diagnosis should not automatically lead to restricted driving. However, people with dementia should be mindful of the risks early on. The decision to stop driving should involve advice from a specialist trained in working with people with dementia.

Caregivers and family can help identify a developing problem. They might notice if a person with dementia is driving fewer miles than usual. They often are familiar with their loved one's behavior. This helps them identify behavior changes over time. Good evidence shows that, when caregivers rate their loved one's driving ability as unsafe or marginal, that person is more likely to fail a driving test.

In contrast, people with dementia don't always rate their driving accurately. Some people with dementia continue driving despite loss of ability. In some cases, these people have reported never avoiding driving. They may not be able to judge their loss of ability. There is strong evidence that people with dementia who reported driving safely can pose a risk.

It also is important to know state driving laws. Many states require doctors to report when a health condition may affect someone's driving ability. Knowing your state's laws will help in decision making.

Talk with your doctor now about preparing to give up driving. This will help you to be ready when that time comes.

This statement is provided as an educational service of the American Academy of Neurology. It is based on an assessment of current scientific and clinical information. It is not intended to include all possible proper methods of care for a particular neurologic problem or all legitimate criteria for choosing to use a specific procedure. Neither is it intended to exclude any reasonable alternative methodologies. The AAN recognizes that specific patient care decisions are the prerogative of the patient and the physician caring for the patient, based on all of the circumstances involved.

\*After the experts review all of the published research studies, they describe the strength of the evidence supporting each recommendation:

*Strong evidence* = more than one high-quality scientific study

*Good evidence* = at least one high-quality scientific study or two or more studies of a lesser quality

*Weak evidence* = the studies, while supportive, are weak in design or strength of the findings

*Not enough evidence* = either different studies have come to conflicting results or there are no studies of reasonable quality

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