

Mature Driver Fact Sheet

- People over 65 represent the fastest-growing segment of the population in the United States. By 2020, there will be more than 40 million licensed drivers ages 65 and older (*Dellinger 2002*).
- Though personal mobility is critical to healthy aging, age-related changes can make it uncomfortable and unsafe to drive. Furthermore, age-related frailties make a senior more likely to be injured or killed when a crash does occur (*NHTSA 2006*).
- In 2006, there were more than 37 million people age 65 and older in the United States and 29 million were licensed drivers in 2005 (*NHTSA 2007*).
- By 2030, nearly 20 percent of people in the U.S. will be at least 65 years old, 9.6 million will be 85+ years old (*Census 2004*).
- Seniors age 65 and older represent 15 percent of all licensed drivers as well as 15 percent of all traffic fatalities and 14 percent of all vehicle occupant fatalities in 2006 (*NHTSA 2007*).
- In 2006, 4,980 seniors ages 65 and older were killed as occupants in traffic crashes. Driver fatalities accounted for 3,735 of these deaths (*NHTSA 2007*).
- In 2006, 202,000 seniors ages 65 and older were injured in traffic crashes (*NHTSA 2007*).
- The most frequently cited reasons for limiting driving among those 55 and older include problems with eyesight, concern about being in an accident and no reason to drive (*Ragland et al., 2004*).
- Cessation of driving can lead to social isolation, depression and a variety of other health-related issues (*Marottoli et al., 2000; Marottoli et al., 1997*).

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Medical Conditions that Affect Driving

As we age, medical conditions that affect driving become more prevalent. Visual, cognitive and movement impairments can occur at any age, and make driving more difficult. However, old age alone does not necessarily indicate the presence of characteristic “older driver” problems (*Transportation Research Board 1988*).

Cognition

- **Dementia** affects approximately 5 million people over the age of 65. Dementia affects individuals differently, but ultimately results in cognitive impairment. Those with dementia may become lost while driving as well as exhibit incorrect turning, impaired signaling, improper lane changing and decreased comprehension of traffic signs and patterns. One common type of dementia is Alzheimer’s disease (*Silverstein 2007*).
- **Strokes** (first or recurrent) are experienced by nearly 780,000 adults each year. Limitations associated with stroke can be characterized by a variety of symptoms. Muscle weakness or paralysis, loss of cognitive function such as memory loss, loss of visual field or trouble recognizing objects, loss of sensation, and/or gait/balance deficits can make the task of driving very difficult (*American Heart Association 2008; Carr 2007*).

Motor Function

- **Arthritis** affects approximately 46 million people in the United States, and nearly 50 percent of those ages 65 and older. In general, arthritis contributes to motor skill deficits. Depending on the joints impacted by arthritis, the following can be difficult for drivers: seat belt and key use, adjusting seats and mirrors, steering problems, problems getting in and out of the car, checking blind spots and using foot pedals (*CDC MMWR 2006; Jones et al., 1991*).
- **Hip replacements** are performed annually on approximately 240,000 adults 65 and older. Hip problems can affect mobility getting in and out of the car and using foot pedals while driving (*CDC 2006*).
- **Knee replacements** are performed each year on approximately 111,000 adults 65 and older. Knee problems can affect mobility getting in and out of the car and using foot pedals while driving (*CDC 2006*).

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Vision

- **Reduced vision** affects people of all ages, impacting their ability to see, read and comprehend while driving, especially at night and in inclement conditions. The most common vision problems experienced by older drivers include:
 - **Cataracts**, which affect 20 million people over the age of 40, causes clouding in the lens of the eye and can result in blurry vision, double vision and poor night vision (*The Eye Diseases Prevalence Research Group 2004; Steinberg et al., 1997*).
 - **Macular degeneration**, which affects 1.75 million people over the age of 40, is the deterioration of the retina needed for visual acuity. This condition leads to poor low-light vision and can result in hazy vision or a blind spot in the center of the visual field (*The Eye Diseases Prevalence Research Group 2004, CNN 2006*).
 - **Glaucoma**, which affects 2.2 million people over the age of 40, destroys the optic nerve and can result in blurred or foggy vision and a loss of peripheral vision (*Weston et al., 2000; Grierson 2000*).

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References

- American Heart Association. Heart Disease and Stroke Statistics—2008 Update: A Report From the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation* 2008;117:e25-e146.
- Carr, DB. Current Knowledge on Medical Fitness-to-Drive: The Role of the Clinician. North American License Policies Workshop: Background Papers. AAA Foundation for Traffic Safety. December 3, 2007.
- Centers for Disease Control and Prevention. Advance Data from Vital and Health Statistics, 2004 National Hospital Discharge Survey, No. 371, May 4, 2006.
- Centers for Disease Control and Prevention. Prevalence of Doctor-Diagnosed Arthritis and Arthritis-Attributable Activity Limitation --- United States, 2003--2005. *MMWR* 2006;55(40):1089-1092.
- CNN (2006). *Macular Degeneration*. Available at: <http://www.cnn.com/HEALTH/library/DS/00284.html>. Accessed February 26, 2008,
- Dellinger AM, Langlois JA, Li G. Fatal crashes among older drivers: decomposition of rates into contributing factors. *Am J Epidemiol* 2002;155(3):234-41.
- Grierson I. The patient with primary open-angle glaucoma. *Practitioner* 2000;244:654-8.
- Jones, JG; McCann, J and Lassere, MN. Driving and arthritis. *British Journal of Rheumatology* 1991;30:361-364
- Marottoli, R. A., Mendes de Leon, C. F., Glass, T. A., Williams, C. S., Cooney, J., L.M., & Berkman, L. F. Consequences of driving cessation: Decreased out-of-home activity levels. *Journal of Gerontology* 2000;55B: 334-340.
- Marottoli, R. A., Mendes de Leon, C. F., Glass, T. A., Williams, C. S., Cooney Jr., L. M., Berkman, L. F., et al. Driving cessation and increased depressive symptoms: prospective evidence from the New Haven EPESE. *Journal of the American Geriatric Society* 1997;45(2):202-206.
- National Highway Traffic Safety Administration (NHTSA). Traffic Safety Facts 2006: Older Population. Washington, DC: USDOT; 2007. Available at: <http://www.nhtsa.dot.gov/>
- Ragland DR, Satariano WA, MacLeod KE. Reasons given by older people for limitation or avoidance of driving. *The Gerontologist* 2004;44(2):237-244.
- Silverstein, NM. Alzheimer's Disease and Fitness to Drive. North American License Policies Workshop: Background Papers. AAA Foundation for Traffic Safety. December 3, 2007.
- Steinberg, EP; Tielsch, JM; Schei, OD, & Javitt, JC. International applicability of the V-14. *Ophthalmology* 1997;104:799-807.
- The Eye Diseases Prevalence Research Group. Causes and prevalence of visual impairment among adults in the United States. *Archives of Ophthalmology* 2004;122:477-485.
- Transportation Research Board, National Research Council. Transportation in an Aging Society. Special Report Washington (DC): The Council; 1988. Report No.:218, Vol. 1.
- United States Census Bureau. U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin. Washington, DC: 2004. Available at: <http://www.census.gov/ipc/www/usinterimproj/natprojtab02a.pdf>.
- United States Census Bureau, Population Division. National Population Estimates. Washington, DC: 2005. Available at: <http://www.census.gov/popest/national/asrh/NC-EST2004-sa.html>
- Weston, BC, Albadi, Z, & White, GL. Glaucoma-review for the vigilant clinician. *Clinician Reviews* 2000;10:59-74.