





In collaboration with the Institute for Mobility, Activity and Participation at the University of Florida

SeniorDriving.AAA.com/SmartFeatures

OLDER DRIVER FACT SHEET

The older adult population, and the older driver population, is growing.

- 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*).
- In 2010, there were more than 40 million people age 65 and older in the United States and 34 million were licensed drivers (NHTSA 2012).
- 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 (US Census 2004).
- Seniors age 65 and older represent 16 percent of all licensed drivers as well as 17 percent of all traffic fatalities and 16 percent of all vehicle occupant fatalities in 2010 (NHTSA 2012).

Older adults are more vulnerable in motor vehicle crashes.

- ◆ The primary risk factor facing older drivers is *fragility*, the susceptibility to injury due to a crash. Fragility makes surviving a crash more difficult, and it is responsible for 60–95 percent of the higher death rates per mile driven in older drivers (*Kent et al. 2009*).
- In 2010, 4,535 seniors ages 65 and older were killed as occupants in traffic crashes. Driver fatalities accounted for 3,398 (75%) of these deaths (NHTSA 2012).
- In 2010, over three quarters (77%) of crashes involving older drivers occurred during the daytime (NHTSA 2012).

Older drivers are incorrectly deemed risky due to their age.

- Despite public perception, older drivers do not pose a disproportionate threat on the roads. On average, drivers in their mid- to late-80s have lower crash rates per mile driven than drivers in their early 20s and roughly half the crash rate of teenagers (AAFTS 2012).
- Not until age 85 and older do drivers begin to experience the highest rate of fatal crash involvement compared to any other age group (AAFTS 2012).
- Fatal crash involvement for drivers over age 85 increases because older adults are more likely to die when they do crash, not because they pose a great risk to others (*Kent et al. 2009*).
- ♦ The rate of fatalities per 100,000 population for older people has decreased 42 percent since 1975 and was at its lowest level in 2009 (IIHS 2010).
- Keeping older adults off of the roads is not necessarily the best option: cessation of driving can contribute to social isolation, depression and a variety of other health-related issues (Marottoli et al. 2000; Marottoli et al. 1997).

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*).

Vision

• Reduced vision affects motorists 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 maturing drivers include:

- Cataracts, which affect 20 million people over the age of 40, cause clouding in the lens of the eye and can resulting in blurry vision, double vision, impaired contrast sensitivity, and poor night vision. Research has shown that cataract surgery reduces cataracts by 50 percent (The Eye Diseases Prevalence Research Group 2004; Steinberg et al., 1997; Elgin, Owsley & Classen 2012).
- Age-Related Macular Degeneration, which affects 1.75 million people over the age of 40, is the deterioration of the macula, the area of the retina used for central vision. This condition leads to poor low-light vision, poor visual perception, and can result in hazy vision or a blind spot in the center of the visual field. (The Eye Diseases Prevalence Research Group 2004; Elgin, Owsley & Classen 2012; Solebo et al. 2008).
- 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 (side) vision. In later stages of the disease, central vision is also affected (Weston et al., 2000; Grierson 2000; Elgin, Owsley & Classen 2012).

Cognition

- ◆ Dementia occurs in 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 (Silverstein 2007).
- ♦ Strokes (first or recurrent) are experienced by nearly 795,000 adults each year. Limitations associated with stroke can be characterized by a variety of symptoms. Muscle weakness or paralysis, increased muscle stiffness, loss of cognitive function (i.e., memory loss or trouble recognizing objects), loss of visual field, loss of sensation, and/or gait,balance, or postural deficits can make the task of driving very challenging (Roger 2011).

Movement

- Arthritis affects approximately 50 million people in the United States, and nearly 50 percent of those ages 65 and older. 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 2010; Jones et al., 1991).
- ♦ Hip replacements are performed annually on approximately 158,000 adults 65 and older. Hip problems can affect movement getting in and out of the car and using foot pedals while driving (CDC 2009).
- Knee replacements are performed each year on approximately 364,000 adults 65 and older. Knee problems can affect movement getting in and out of the car and using foot pedals while driving (CDC 2009).

References

AAA Foundation for Traffic Safety. 2012. Don't Be Fooled. Available at http://www.aaafoundation.org/pdf/2012DontBeFooledSeniors.pdf. Accessed October 18, 2012.

Centers for Disease Control and Prevention. 2009 National Hospital Discharge Survey: Number by Procedure, Category and Age. 2009.

Centers for Disease Control and Prevention. Prevalence of Doctor-Diagnosed Arthritis and Arthritis-Attributable Activity Limitation—United States, 2007–2009. MMWR 2010; 59(39): 1261–1265.

Dellinger AM, Langlois JA, & Li G. Fatal crashes among older drivers: decomposition of rates into contributing factors. American Journal of Epidemiolgy 2002;155(3):234–41.

Elgin, J., Owsley, C. Classen, S. (2012). Chapter 8. Vision and Driving. In M. McGuire and E. Schold-Davis' (Eds.) American Occupational Therapy Association's *Driving and Community Mobility: Occupational Therapy Strategies Across the Lifespan*, Bethesda, MD.

Grierson I. The patient with primary open-angle glaucoma. Practitioner $2000\colon 244;\,654-658.$

Insurance Institute for Highway Safety (IIHS). 2010. Fatality Facts: Older People. Available at: http://www.iihs.org/research/fatality.aspx?topicName=Olderpeople&year=2010. Accessed September 7, 2012.

Jones JG, McCann J, & Lassere MN. Driving and arthritis. British Journal of Rheumatology 1991; 30: 361–364.

Kent R, Trowbridge M, Lopez-Valdes FJ, Ordoyo RH, Segui-Gomez M. How many people are injured and killed as a result of aging? Frailty, fragility, and the elderly risk-exposure tradeoff assessed via a risk saturation model. Annals of Advances in Automotive Medicine 2009; 53: 41–50.

Marottoli R.A, Mendes de Leon CF, Glass TA, Williams CS, Cooney Jr. LM, & Berkman LF. Consequences of driving cessation: Decreased out-of-home activity levels. Journal of Gerontology 2000; 55B: 334–340.

Marottoli R.A, Mendes de Leon CF, Glass TA, Williams CS, Cooney Jr. LM, Berkman LF, 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 2010: Older Population. Washington, DC: USDOT; 2012. Available at: http://www-nrd.nhtsa.dot.gov/Pubs/811640.pdf. Accessed August 13, 2012.

National Highway Traffic Safety Administration (NHTSA). Fatality Analysis Reporting System (FARS). Washington, DC: USDOT; 2012. Available at: http://www.nhtsa.gov/FARS. Accessed August 23, 2012.

Ragland DR, Satariano WA, & MacLeod KE. Reasons given by older people for limitation or avoidance of driving. The Gerontologist 2004; 44(2): 237–244.