



Setting the Stage for a Discussion of Dementia and Driving

**Carl A. Soderstrom, M.D.
Chief, Medical Advisory Board
Maryland Motor Vehicle Administration**

**Maryland Older Driver Safety Symposium
Linthicum Heights, MD , DC – April 25, 2013**

A photograph of a busy street market in Santa Monica, California. The street is filled with people, many wearing hats, and market stalls with various colored awnings (white, green, yellow). Buildings line the street, and palm trees are visible in the background. The sky is overcast. The text "Santa Monica, California, Vehicle Intrusion into Farmers' Market" is overlaid in yellow, with "Vehicle Intrusion" circled in white. The date "July 16, 2003" is also overlaid in yellow at the bottom right.

Santa Monica, California,
Vehicle Intrusion into
Farmers' Market

July 16, 2003

Santa Monica, CA - Farmer's Market

July 17, 2003

87 y.o. male driver

California Highway Patrol report:

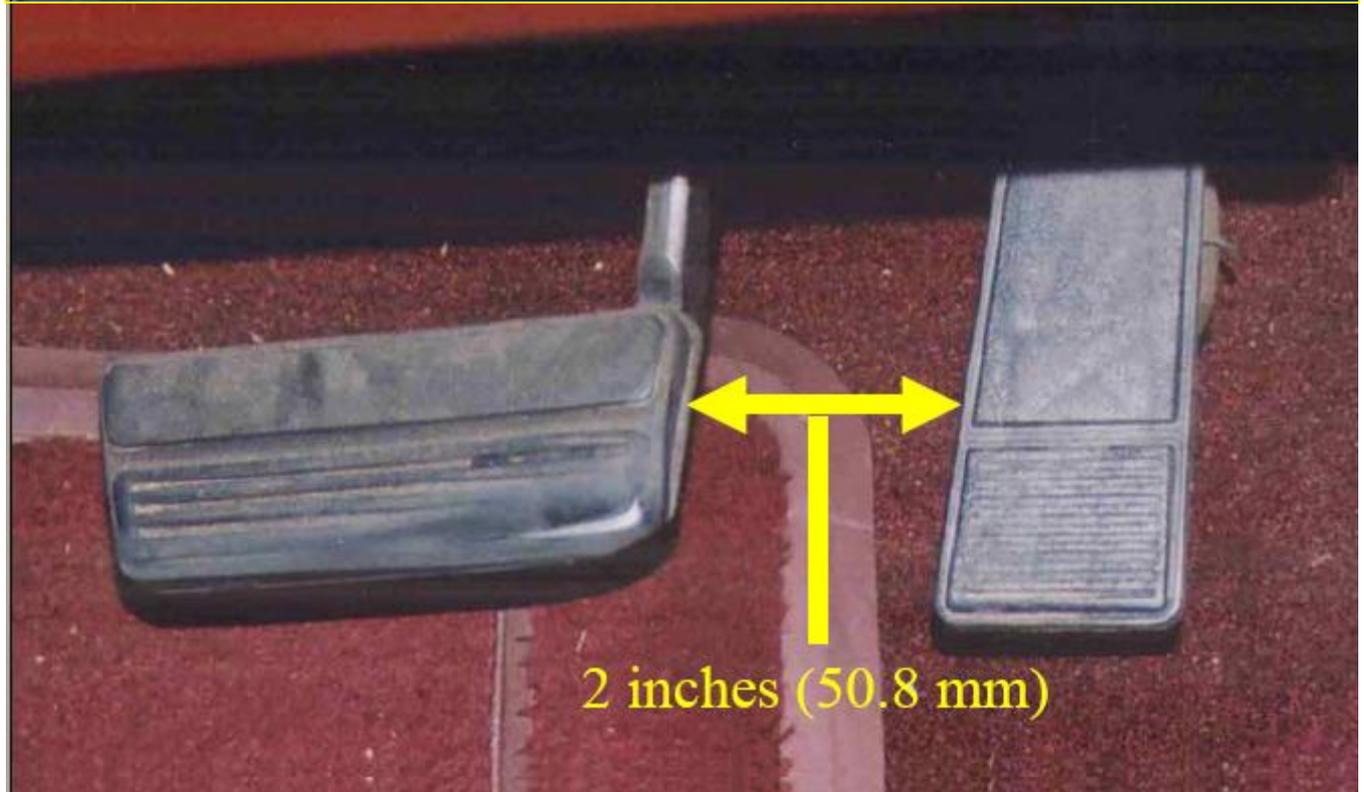
His "eyes open, hands on the steering wheel at the 10 & 2 o'clock positions"

- Car traveled 995 feet, up to 60 mph.**
- Avoided parked cars ... but struck pedestrians & hurled them into the air before finally stopping.**

Killed – 10 (7 months – 78 yrs)

Injured - 63

- No problems with weather, fatigue, alcohol, or drug use by driver
- No mechanical problems with vehicle





Medical Oversight of Non-commercial Drivers

Public Hearing
Washington, D.C.
March 18-19 2003



Fatal Crashes

Washington County
Maryland
2001



Frederick, Maryland
2002



**“High-Risk Medical Conditions”
Considered in Public Hearing (March 18-29, 2003)
& Meeting (Nov 9, 2004) of NTSB**

- Epilepsy: 2.5 million - 180,000 new cases/year
- Diabetes: 18.2 million - 1 million new cases/year over 20
- Sleep Disorders: 50 to 70 million
- Cardiovascular Disease: 23.5 million
- Alzheimer’s Disease: 4.5 million
 - 10% of those >65 yrs,
 - 50% of those >85 yrs
- Arthritis: 40 million – 7 million with limited activity
- Eye Diseases: 5.5 million with cataracts, 2 million with glaucoma
 - 1.2 million with later-stage macular degeneration
- Alcoholism: 14 million – ETOH linked to 41% of fatal crashes

www.nts.gov/events/hearing_sched.htm

November, 2005

Scene Diagram

scale 1 cm = 2.5 m
V1: 1998 Chevrolet Malibu 4DS
V2: 1997 Toyota 4-Runner SUV
V3: 1994 Chrysler LH8 4DS



UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE
SHOCK, TRAUMA AND ANESTHESIOLOGY
RESEARCH CENTER



CIREN
Crash Injury Research & Engineering Network

Vehicle 2 – Point of Impact





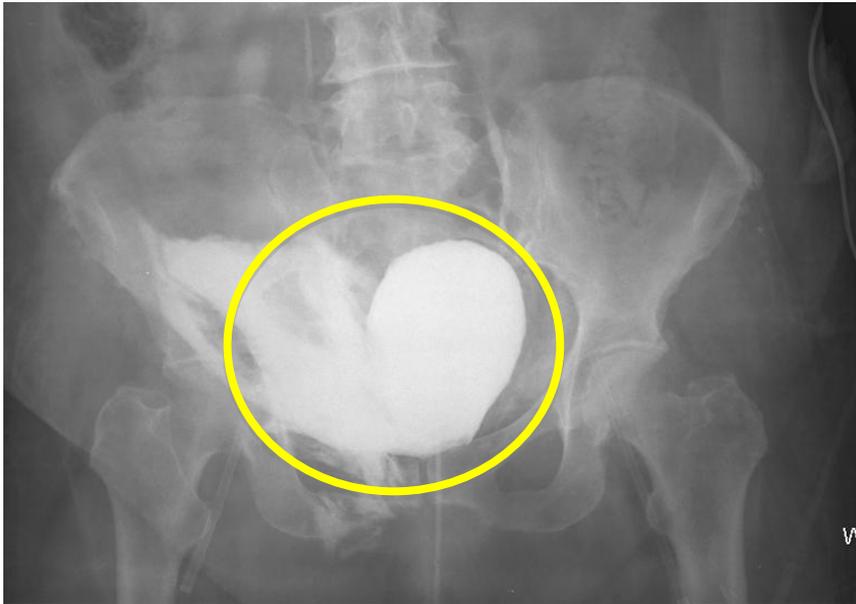
CDC	02RYAW3
PDOF	70 degrees
Damage width	74 inches
Max crush	8 inches
WinSMASH Delta V	18 mph

Vehicle 2 – 1997 Toyota 4-Runner LTD



Vehicle 1 – Case occupant
Right front passenger
78 year old female/61"/142 lbs

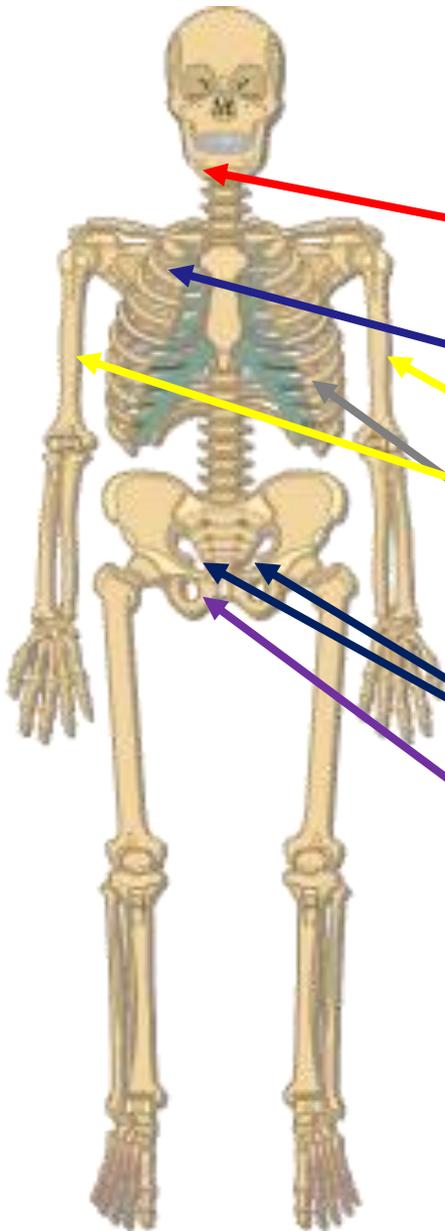




Ruptured bladder
(extraperitoneal)

Associated with impact to Door Panel

& Concussion
& Both Lungs lacerated



Skeletal Injuries

Right Mandible fracture

Right Ribs (1 & 2) fracture

Bi-lateral Humerus fracture

Left Ribs (7-8) fracture

Bi-lateral Pubic rami fracture

Right Sacral fracture

Medical Costs

15 Days in Shock Trauma + Rehabilitation

– Professional	\$14,400
– Hospital	\$62,736
– Rehab	\$25,000
– Outpatient	\$ 2,500
– Home care	\$ 5,400
TOTAL	\$110,036



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Medical Oversight of Noncommercial Drivers



**Highway Special
Investigation Report**
NTSB/SIR-04/01

PB2004-917002
Notation 7673A



**National
Transportation
Safety Board**
Washington, D.C.

November 9, 2004



NTSB – 2009: RECOMMENDATIONS

To the Liaison Committee on Medical Education, the American Osteopathic Association, and the Association of American Medical Colleges:

Require medical schools to teach students about the driving risks associated with certain medical conditions and medications, the existence and function of State reporting laws regarding medically high-risk drivers, and the methods and resources for counseling such drivers. (H-04-47)

To the Federation of State Medical Boards:

Work with your member organizations to ensure that continuing medical education requirements in all States include a course addressing the driving risks associated with certain medical conditions and medications, as well as the existence and function of State reporting laws and procedures regarding medically impaired drivers. (H-04-48)



Physician's Guide to

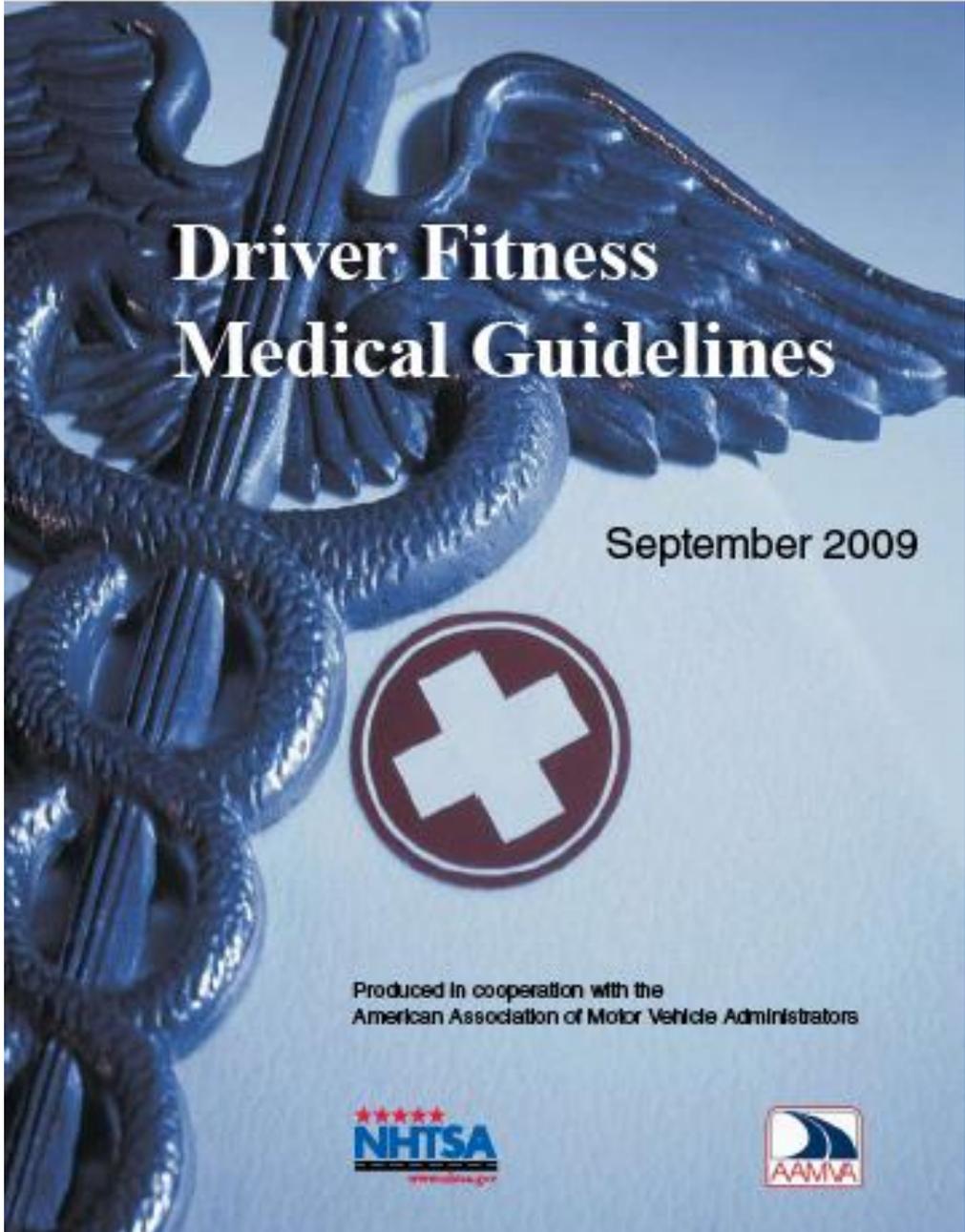
Assessing and Counseling Older Drivers

2nd edition



U.S. Department of Transportation
National Highway Traffic Safety
Administration





Driver Fitness Medical Guidelines

September 2009

Produced in cooperation with the
American Association of Motor Vehicle Administrators



GUIDELINES FOR MVAs, CLINICIANS & DRIVERS

- Vision
- Physical Limitations
- Dementia
- Diabetes
- Seizures
- Sleep Disorders

"These guidelines are voluntary.

"...decisions concerning a driver's
ability should be made on a
case-by-case basis."

DOT HS 811 210

Strategies for Medical Advisory Boards and Licensing Review



This document is available to the public from the National Technical Information Service, Springfield, Virginia 22161

Recommendation 7.

The DMV should accept reports of potentially at-risk drivers from physicians and other medical providers, law enforcement, social services providers, friends, families, and other concerned citizens.



Carl A. Soderstrom, MD
Chief, Medical Advisory Board
Maryland Motor Vehicle Administration
Glen Burnie, MD
csoderstrom@mdot.state.md.us
410-768-7371