



U.S. Consumer  
Product Safety  
Commission



Neighborhood  
Safety Network

A Project of the U.S. Consumer  
Product Safety Commission

# SPECIAL REPORT:

## Emergency Room Injuries Adults 65 and Older

### Summary

According to data from the U.S. Consumer Product Safety Commission (CPSC), from 1991 to 2002, the percentage increase of adults 75 years and older entering U.S. hospital emergency rooms with consumer product-related injuries was almost three times this age group's increase in the U.S. population. Adults 75 and older have twice the rate of emergency room-treated injuries associated with consumer products compared with those 65 to 74.

In 2002, an estimated 1,451,140 people 65 and older were treated in U.S. hospital emergency rooms (ERs) for injuries associated with consumer products. Of these adults, 955,540 (66%) were 75 and older.

From 1991 to 2002, the number of people 75 and older treated in U.S. hospital emergency rooms for product-related injuries increased 73%, a percentage increase almost three times this age

group's 27% increase in population.

During this same period, hospital emergency room visits for those 65 to 74 increased 23%, while this age group did not expand during these years. These figures result in a rate of emergency room-treated injuries for those 75 and older approximately twice that of those 65 to 74 (Figure 1 below; Figure 2 on page 2 shows population comparison).

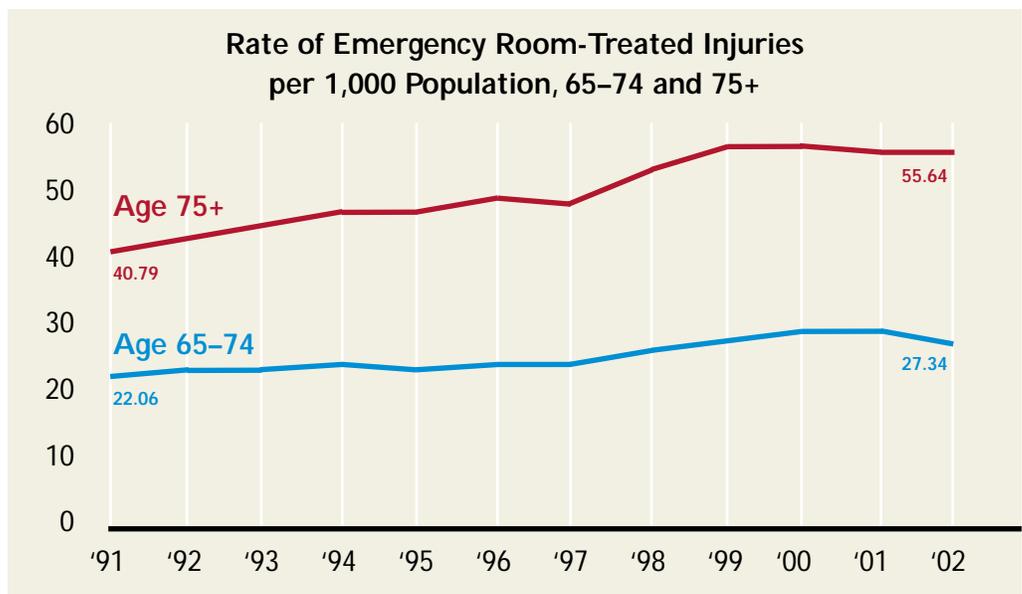


Figure 1

From 1991 through 2002, the number of people 75 and older admitted to hospital emergency rooms for consumer product-related injuries increased **73%.**

### Falls

Among those 75 and older, about three-quarters (77%) of emergency room visits associated with consumer products involved falls. Adults 65 to 74 had a lower proportion of falls (59%). Typical scenarios for falls included:

- Falls down stairs (while descending or ascending).
- Transitioning from standing to sitting (and vice versa) on furniture, toilets, beds, bathtubs, etc.
- Falls from tripping over loose carpets, cords, and other obstacles on the floor.
- Falling off ladders and step stools.

### Injury Scenarios

Ordinary consumer products were involved in numerous injury scenarios. Notable among these consumer products were: yard and garden equipment, ladders/step stools, and personal use items like clothing. (See Chart, pages 4–5.)

### Hospitalizations

Of adults 65 to 74 treated in hospital emergency rooms for consumer product-related injuries, 15% were hurt seriously enough to be hospitalized. Those 75 and older had a hospitalization percentage of 27%. For the population as a whole, 4.7% of emergency room visits resulted in hospitalization.

### Deaths

For 2000 (the most recent year for which death data are complete), CPSC received reports of more than 3,300 product-related deaths to those 65 and older.<sup>1</sup>

<sup>1</sup>This is a substantial undercount of deaths in this population, especially in the area of falls, since CPSC does not purchase all fall-related death certificates. In addition, CPSC buys and reports only deaths that have a *product identified*.

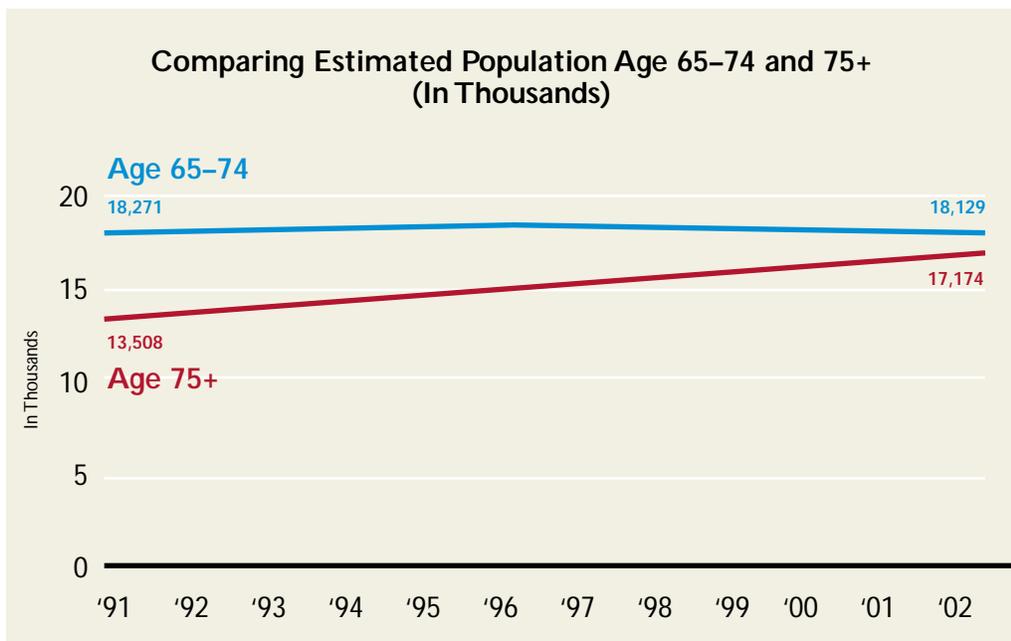


Figure 2

### Costs

According to CPSC data, in 2002, the single-year overall injury costs associated with persons 65 years and older were \$89.5 billion. In 2000, death costs for the over 3,300 consumer product-related deaths among persons in this age group were approximately \$16.5 billion.<sup>2</sup> Combining these two figures into a single index results in an estimate of over \$100 billion in injury and death costs associated with this population.

### Comparison with Younger Adults

From 1997 through 2002, the total number of consumer product hospital emergency room-treated injuries for persons 65 and older increased by 21%. The increase among younger-aged adults (20 to 64) was 15%.

In each of these years (1997 through 2002), the rate of consumer product-related emergency room-treated injuries per 1,000 population for those 65 and older was higher than for adults 20 to 64 (Figure 3).

### Discussion

Adults 65 and older are one of the fastest-growing segments of the U.S. population. This represents not only a greater number of people, but also a larger proportion of the population. Virtually all of this growth has taken place among those 75 and older.

Over the past decade, the percentage increase of adults 75 and older treated in hospital emergency rooms for injuries associated with consumer products is almost three times the group's increase in the U.S. population. This likely reflects this age group's special vulnerability. If the trend continues as the population ages, an ever increasing number of older adults may be seeking treatment for their injuries in U.S. hospital emergency rooms.

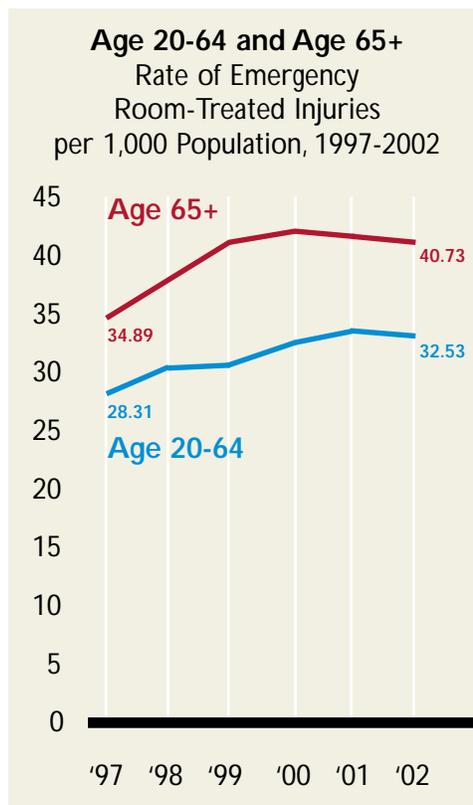


Figure 3

Among those 75 and older, about 3/4 of emergency room visits associated with consumer products involved falls.

.....  
<sup>2</sup>This estimate is low since CPSC does not have reports of all product-related deaths for this population.

# Injuries and Deaths in Selected Consumer Product Categories for Adults 65 and Older

While many emergency room injuries for older adults are associated with stairs and floors, the following chart highlights other noteworthy consumer product categories for adults 65 and older. Some of the injuries associated with these products result from consumer behavior rather than a defect in the product.

Injury estimates are based on 2002 data from CPSC's National Electronic Injury Surveillance System (NEISS).<sup>3</sup> Deaths include those reported to CPSC in 2000. *(See pages 6-8 for additional information on some selected product categories.)*

.....  
<sup>3</sup>For a description of NEISS, see the methodology section at the end of this report.

PRODUCT CATEGORY	FINDINGS
Home workshop tools and equipment	From 1997 to 2002, the 65 and older population accounted for between 9% and 10% of the workshop tool-related injuries each year.
Yard and garden equipment	There was a higher population-based rate of injury among persons 65 and older than among persons 20-64. Riding mower tipover or rollover was an important hazard in this age group. Tripping over garden hoses resulted in injuries and deaths.
Housewares	Candle fires resulted in most deaths in this category.
Ladders and step stools	There was a higher population-based rate of injury among persons 65 and older than among persons 20-64. Persons 65 and older accounted for half of all ladder deaths reported to CPSC. In 2002, this population accounted for 16% of emergency room-treated injuries involving ladders, but were 39% of those hospitalized for ladder-related injuries.

*continued on page 5*

<b>PRODUCT CATEGOR</b>	<b>FINDINGS</b>
<b>Sports</b>	Among those 65 and older, CPSC has reports of 100 drownings in swimming pools or spas in one year. This is disproportionate to the group's share of the population.
<b>Personal use items</b>	There was a higher population-based rate of injury among persons 65 and older than among persons 20-64. Most noteworthy were the 159 clothing ignition-related deaths to persons 65 and older reported to CPSC in a single year.
<b>Household chemical products</b>	The most noteworthy injury pattern for older adults was mistaken use of a product, because the consumer did not recognize the container of the product or mistook it for another product.
<b>General household appliances</b>	Tripping over vacuum cleaner cords resulted in injuries. Older adults also were injured when struck by automatic doors.
<b>Kitchen appliances</b>	Cooking fires and clothing ignition while cooking were the major hazards for older adults. Tripping over open dishwasher doors was another injury pattern.
<b>Packaging and containers for household products</b>	In 2002, almost one-third of the 35,000 ER-treated injuries to older adults were cuts from cans. Almost all of these occurred while the cans were being opened, usually involving cans that did not require a can opener.
<b>Children's products</b>	This category includes bicycles. There were 106 deaths to persons 65 and older reported in this category in one year. Of these, 104 involved bicycles; 46 of these were head injuries.
<b>Bathrooms</b>	Among those 65 and older, there were 51 deaths associated with tap water scalds reported to CPSC in one year.
<b>Home communication</b>	In 2002, 21% of the older adult injuries in this category were to people reaching for telephones. Another 12% tripped over telephone cords.
<b>Miscellaneous products</b>	In 2002, injuries were fairly frequent from older adults tripping over dog leashes.

# Yard and Garden Equipment

The injury rate for persons 65 and older was consistently higher than the rate for persons 20 to 64.

## 65 and Older Stats

■ ER-Treated Injuries 2002	41,780
■ Medically-Treated Injuries 2002	108,710
■ % ER-Treated Hospitalized	12.6%
■ Deaths 2000	51
■ Cost of Medically-Treated Injuries (\$Million)	\$1,971.6
■ Death Costs (\$Million)	\$255.0
■ Total Known Costs (\$Million)	\$2,226.6

Sources: See page 10



## Injuries

Injury patterns included blade contact with a variety of powered equipment, contact burns, sprains from starting equipment, contact with sharp edges, and mower rollover.

## Comparison with Younger Population

From 1997 to 2002, the population-based injury rate for persons 65 and older was consistently higher than the rate for persons 20 to 64. While both the frequency and the rate of injury decreased in 2002, both measures among the older group have increased considerably since 1997. Further, in every year of this 6-year period, the rate of injury per 100,000 population with these products was higher among those 65 and older than among those 20-64.

## Deaths

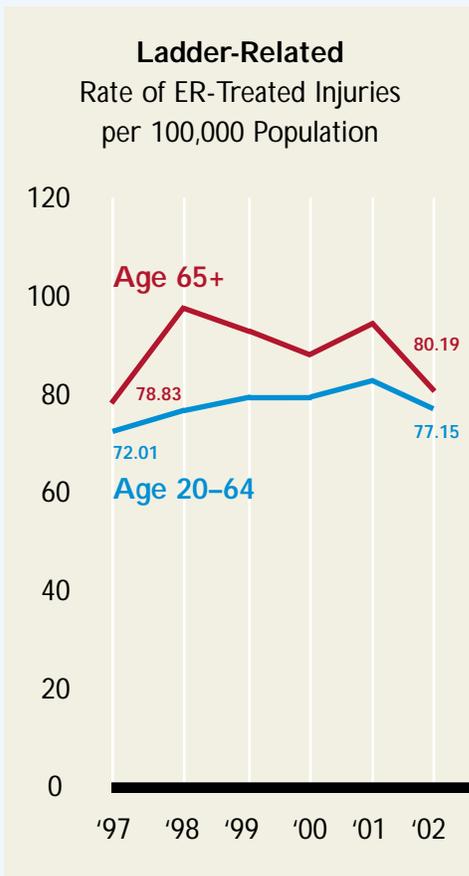
CPSC received reports of 51 yard and garden equipment deaths among persons 65 and older that occurred in 2000. These included 23 deaths involving riding lawn mowers or garden tractors, 2 deaths involving chainsaws, and 1 death involving a garden tiller. The riding mower-related deaths were mostly the result of mower rollovers, falls off mowers, and riding mowers going off raised terrain features, such as retaining walls or creek banks. There were 11 deaths reported involving tractors. Tripping over garden hoses also resulted in injuries and deaths.

# Ladders & Step Stools

## 65 and Older Stats

■ ER-Treated Injuries 2002	28,510
■ Medically-Treated Injuries 2002	76,890
■ % ER-Treated Hospitalized	26%
■ Deaths 2000	79
■ Cost of Medically-Treated Injuries (\$Millions)	\$2,286.7
■ Death Costs (\$Millions)	\$395.0
■ Total Known Costs (\$Millions)	\$2,681.7

Sources: See page 10



## Injuries

Falls were the dominant hazard pattern, accounting for 25,710 of the 28,510 estimated emergency room-treated injuries. Cuts from ladders and pinches in the mechanisms of ladders were some of the non-fall injuries.

In about 40% of the fall-related emergency room-treated injuries, fall height was known. In about one-third of the sample of fall cases where fall height was known, the victim fell from higher than 6 feet. Almost all of the victims who fell from 4 feet or higher were male. The majority of the victims who fell from 4 feet or lower were female. Among victims 85 and older, where fall height was known, virtually all the fall injuries were from less than 4 feet.

Persons 65 and older accounted for about 16% of the emergency room-treated injuries associated with ladders, but they were 39% of the hospitalizations for ladder-related injuries.

## Comparison with Younger Population

From 1997 through 2002, the injury rate per 100,000 population associated with ladders was consistently higher for persons 65 and older than for persons 20 to 64.

## Deaths

CPSC has reports of 78 ladder-related deaths and 1 step stool-related death to persons 65 and older that occurred in 2000. All deaths were the result of falls. Within this age group, the average age of victims was 77.

Almost all of the victims who fell from 4 feet or higher were male.

# Personal Use Items\*

## 65 and Older Stats

■ ER-Treated Injuries 2002	58,220
■ Medically-Treated Injuries 2002	149,660
■ % of ER-Treated Hospitalized	16.5%
■ Deaths 2000	174
■ Cost of Medically-Treated Injuries (\$Million)	\$3,046.5
■ Death Costs (\$Million)	\$870.0
■ Total Known Costs (\$Million)	\$3,916.5

Sources: See page 10

\*Examples of products included in this category are: hair dryers, hair curlers, razors and shavers, toothbrushes, footwear, nightwear, daywear, and outerwear.

For adults 65 and older, there were **159** deaths associated with clothing ignition in one year.



## Injuries

While a number of these injuries were associated with falls, almost half of the incidents did not involve falls and most of these were incidental to the product. Notable among these non-fall injuries were those due to clothing ignition and sharp edges.

## Comparison with Younger Population

From 1997 through 2002, the 65 and older age group was injured at a consistently higher rate with personal use items when compared with persons 20 to 64. The rate of injury among the 65 and older population also appears to have increased from 1997 through 2002.

## Deaths

CPSC has reports of 174 deaths to persons 65 and older associated with this category that occurred in 2000. Of these, 159 were associated with clothing ignition and resulted in death due to burn injuries. The table below shows the variety of ignition sources involved.

IGNITION SOURCE	# OF DEATHS
Cooking	53
Smoking	37
Burning Trash	13
Contact with Heaters	13
Candles	3
Welding Equipment	2
Other	7
Not Stated	31
<b>Total</b>	<b>159</b>

**Selected Consumer Product Categories for Persons 65 and Older  
Injury, Death and Cost Estimates**

<b>Title</b>	<b>ER-treated injuries 2002</b>	<b>Medically- treated injuries 2002</b>	<b>% Hospitalized 2002</b>	<b>Deaths 2000</b>	<b>Injury Cost (\$Million)</b>	<b>Death Cost (\$Million)</b>	<b>Total Cost (\$Million)</b>
Home workshop tools and attachments	38,210	86,830	6.8%	20	\$1,363.0	\$100.0	\$1,463.0
Yard and garden equipment	41,780	108,710	12.6%	51	\$1,971.6	\$255.0	\$2,226.6
Housewares	52,990	122,410	5.5%	17	\$1,588.9	\$85.0	\$1,673.9
Ladders and step stools	28,510	76,890	26.0%	79	\$2,286.7	\$395.0	\$2,681.7
Sports	57,120	168,890	11.8%	128	\$3,164.2	\$640.0	\$3,804.2
Personal use items	58,220	149,660	16.5%	174	\$3,046.5	\$870.0	\$3,916.5
Household chemicals	7,880	20,100	13.2%	24	\$315.9	\$120.0	\$435.9
General household appliances	8,700	22,660	12.8%	12	\$448.8	\$60.0	\$508.8
Kitchen appliances	12,790	32,270	15.3%	56	\$747.3	\$280.0	\$1,027.3
Packaging and containers for household products	35,020	97,850	9.2%	14	\$1,399.5	\$70.0	\$1,469.5
Children's products	18,630	19,000	18.2%	106	\$1,321.4	\$530	\$1,851.4
Bathrooms	85,630	220,630	27.5%	194	\$6,039.8	\$970	\$7,009.8
Home communication	11,930	31,230	22.5%	4	\$610.4	\$20	\$630.4
Miscellaneous products	13,060	33,090	10.6%	20	\$728.3	\$100	\$828.3

Table 1

# Methodology

NEISS hospitals provide data on all consumer product-related injuries treated in the hospitals' emergency rooms.

## NEISS

CPSC operates the National Electronic Injury Surveillance System (NEISS), a probability sample of 98 U.S. hospitals with 24-hour emergency rooms and more than six beds. These hospitals provide CPSC with data on all consumer product-related injuries treated in the hospitals' emergency rooms.

## CPSC's Death Certificate Database

CPSC purchases death certificates from all 50 states, New York City, the District of Columbia, and some territories. The result is not a statistical sample from which a national estimate can be made or a complete count of product-related deaths. These death counts, therefore, tend to be underestimates of the actual numbers of product-related deaths.

## CPSC's Injury Cost Model

The Injury Cost Model (ICM) is a computerized analytical tool designed to measure the direct and indirect costs associated with consumer product-related injuries. It provides a descriptive measure of injury hazards in monetary terms. The ICM is structured to measure the four basic categories of injury costs: medical costs, work losses, pain and suffering, and product liability and legal costs.

## For More Information:

This information is based on CPSC's report entitled *Hazard Screening Report: Injuries to Persons 65 Years of Age and Older*. It can be accessed on CPSC's Web site at [www.cpsc.gov](http://www.cpsc.gov). The authors are George W. Rutherford Jr.; M.S., Natalie Marcy, B.S.; and Alberta Mills, B.A.