



# Texas Preventable Disease

# NEWS

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## SMOKING-ATTRIBUTABLE DEATHS AND YEARS OF POTENTIAL LIFE LOST

### BACKGROUND

The tremendous health burden caused by regular cigarette use is well documented. Smoking is the largest cause of excess cancer mortality in the US (Surgeon General's Report 1982); the most important modifiable risk factor for coronary heart disease (Surgeon General's Report 1983); and the major cause of chronic obstructive lung disease in the US population (Surgeon General's Report 1984). The scientific data establishing cigarette smoking as a risk factor for certain diseases is now overwhelming, totaling more than 50,000 studies.

Smokers are at increased risk for multiple diseases primarily from three diagnostic categories: cancer, respiratory diseases, and cardiovascular diseases. Former smokers are also at increased risk for these diseases for a period of time after quitting. The risk for ex-smokers, however, diminishes with prolonged abstinence.

Not only is it known that smoking poses a greater risk for certain diseases, but, due to epidemiologic studies which examine the impact of smoking on multiple disease outcomes, it is now possible to estimate the relative risks for both current and former smokers for approximately 20 different diseases. The risks resulting from smoking associated with these diseases were applied to 1985 Texas mortality data to estimate the number of smoking-attributable deaths in the state (adjustments were made for differences in age and gender). The number of smoking-attributable deaths is consistent with an earlier report done by the Bureau of Epidemiology of the Texas Department of Health that reported deaths due to smoking in Texas grouped by county.

Smokers are not only more likely than non-smokers to die from certain diseases, but are also more likely to die at an earlier age than non-smokers who contract the same disease. Using Texas mortality data, it is possible to estimate the years of potential life lost (YPLL) due to premature death associated with smoking.

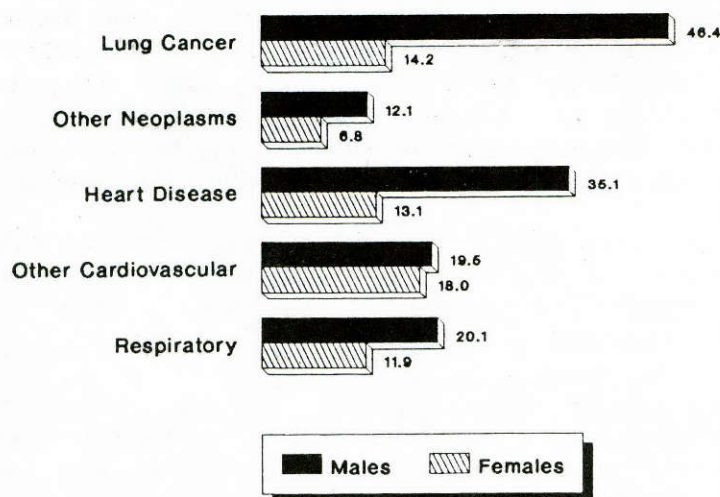
### SUMMARY

There are an estimated 16,697 smoking-related deaths annually in Texas. This represents 14% of total deaths in the state. Table 1 shows the smoking-related deaths by sex and age. Smoking-related mortality for men is considerably higher for women, regardless of age, as can be seen in Figure 1.

**Table 1.**  
**Estimated annual smoking-attributable mortality, adults, ages 20+ - Texas, 1985**

Diagnostic Group	Males	Females	Both Sexes Ages 20-64	Both Sexes Ages 65 +
Lung Cancer	3666	830	1849	2647
Other Neoplasms	943	424	550	817
Ischemic Heart Disease	2766	964	1458	2272
Other Cardiovascular	1850	1828	760	2917
Respiratory	2275	978	609	2643
Tuberculosis	31	0	13	18
Ulcers	71	72	33	110
Column Total	11602	5095	5273	11424
Grand Total		16697		

**Figure 1.**  
**Estimated annual smoking-attributable mortality by gender - Texas, 1985**



• Deaths in Thousands

Table 2 shows the years of potential life lost due to premature death associated with smoking for both sexes. Males exceed females in all diagnostic groups, accounting for 67% of all potential years of life lost due to smoking.

**Table 2.**  
**Estimated smoking-attributable years of potential life lost (YPLL), adults, ages 20+ - Texas, 1985**

Diagnostic Group	Males	Females	Both Sexes Ages 20-64	Both Sexes Ages 65 +
Lung Cancer	46447	14186	37386	23248
Other Neoplasms	12084	6781	12197	6669
Ischemic Heart Disease	35055	13079	32157	15977
Other Cardiovascular	19459	18035	17566	19928
Respiratory	20075	11944	12409	19610
Tuberculosis	476	0	345	131
Ulcers	797	778	787	788
Column Total	134393	64804	112846	86351
Grand Total		199197		

## PLAYGROUND-RELATED INJURIES IN PRESCHOOL-AGED CHILDREN -- US, 1983-1987\*

From 1983 to 1987, nearly 6.72 million emergency room visits in the US were for product-related injuries among preschool children 1-4 years old.\*\* Approximately 305,000 (4.5%) of these injuries involved playground equipment. These playground equipment-related injuries occurred most frequently at home (38.3%), in sports or recreation settings (29.4%), or at school (8.9%). Of the 82,108 injuries in preschool-aged children attending day-care (coded as occurring at school), 27,232 (33.2%) were related to playground equipment.

Most preschool-aged children with injuries involving school playground equipment were 3 or 4 years old and male (Table 1). A higher proportion of playground-related injuries occurred in the spring than at other times of the year (Table 1). Forty percent of playground-related injuries were associated with climbing apparatus, and two thirds of injuries were to the head and neck (Table 1).

Lacerations (38.5%), contusions or abrasions (26.8%), fractures (16.8%), strains or sprains (4.4%), and concussions (1.7%) were most commonly reported (Table 1). Head and neck injuries were primarily lacerations (55.7%) and contusions or abrasions (23.7%). Injury to the extremities and trunk included mostly fractures, contusions or abrasions, and strains or sprains (upper extremity--62.4%, 22.2%, and 12.2%; lower extremity--31.4%, 42.2%, and 15.4%; trunk--27.7%, 51.2%, and 9.2%, respectively). Approximately 5.3% of preschool-aged children treated in emergency rooms for playground-related injuries required hospitalization.

**MMWR Editorial Note:** By 1984, more than 11 million children attended day-care facilities. The potential injury hazards of organized day-care and day-care playgrounds have been documented. The NEISS data suggest that further improvements in playground safety are needed to reduce playground-related injuries.

NEISS provides a data base for estimating injuries associated with playground equipment in young children in day-care facilities. However, these data are limited in that, by using "school" as the location to represent day-care playgrounds, they exclude children injured in day-care at a home, church, or building other than a school. Conversely, some injuries that reportedly took place at school possibly occurred to children using a school playground but not attending day-care. Interpreting these data is also difficult because the type, size, and cost of equipment at a school playground differ from those used in homes, churches, or private day-care. Thus, the distribution by type of equipment in the overall day-care environment may vary considerably from that described here.

A CPSC-sponsored hazard analysis showed that falls to the ground surface account for 60% of playground equipment-related injuries. A one-foot fall directly on the head onto concrete or asphalt or a four-foot fall onto packed earth can be fatal. In contrast, surfaces made of energy-absorbing mats or loose materials such as wood chips or sand may reduce the likelihood of head injury even from falls of eight feet. Yet over 48% of day-care playground equipment is not installed over impact-absorbing surfaces. Although in some cases the Occupational Safety and Health Administration requires that guard rails be installed to protect workers as low as four feet above ground level, no such protective legislation exists for children on playground equipment, some of which is more than ten feet above the ground.

Injury control programs should address the safety aspects of public and other playgrounds for all ages. According to NEISS data, 994,678 injuries in all age groups from 1983 to 1987 were associated with playground equipment; 243,807 (24.5%) of these injuries occurred at schools, and 257,070 (25.8%), at places of recreation. Recommendations to improve playground safety

\*Adapted from: CDC. MMWR 1988; 37(41): 629-632.

\*\*This estimate is based on data from the National Electronic Injury Surveillance System (NEISS) of the US Consumer Product Safety Commission (CPSC). Sixty-two hospitals with emergency rooms located throughout the US contribute to this data base. When weighted, the reports from NEISS reflect national estimates of persons with product-related injuries treated in hospital emergency rooms.

include installing playground equipment over energy-absorbing surfaces, locating the equipment away from obstructions, properly anchoring the equipment, checking the integrity of the equipment frequently, covering protrusions, removing broken equipment promptly, and instructing and supervising children in proper playground use. If wood chips or sand are used as surfacing, they should be well maintained and not allowed to compact or fall below an adequate depth. Limiting the height of playground equipment may also be helpful. Parents should consider the safety aspects of playgrounds in day-care centers, schools, and public areas before allowing their children to use them.

**Table 1.**  
**School playground-related injuries in children aged**  
**1-4 years, selected items - US, 1983-1987**

Characteristic	Playground-related injuries		Characteristic	Playground-related injuries	
	No.*	(%)		No.*	(%)
Age (yrs)			Location of injury		
1	1,154	( 4.2)	Head and neck <sup>‡</sup>	18,099	(66.5)
2	4,557	(16.7)	Upper extremity	5,021	(18.4)
3	9,015	(33.1)	Lower extremity	2,027	( 7.4)
4	12,506	(45.9)	Trunk	1,858	( 6.8)
Sex			Multiple sites	228	( 0.8)
Male	15,195	(55.8)	Injury diagnosis		
Female	12,038	(44.2)	Laceration	10,471	(38.5)
Season			Contusion/abrasion	7,309	(26.8)
Spring	9,211	(33.8)	Fracture	4,581	(16.8)
Summer	5,279	(19.4)	Strain/sprain	1,209	( 4.4)
Fall	6,275	(23.0)	Concussion	468	( 1.7)
Winter	6,466	(23.7)	Other	3,081	(11.3)
Type of equipment			Unknown	114	( 0.4)
Climbing apparatus	11,027	(40.5)			
Slide/sliding board <sup>†</sup>	7,043	(25.9)			
Swing/swing set	4,956	(18.2)			
Seesaw/teeterboard	1,302	( 4.8)			
Other	2,905	(10.7)			

\*These are national estimates of product-related injuries treated in hospital emergency rooms using data from the National Electronic Injury Surveillance System.

<sup>†</sup>Excluding swimming pools and ground water slides.

<sup>‡</sup>Including the face and mouth.

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