

**Fireworks-related Injuries**

*The Fourth of July is a popular holiday, and one of the favorite ways people celebrate is with fireworks. In 1997 the United States Consumer Product Safety Commission reported that an estimated 8,300 people were seen nationwide in hospital emergency departments for fireworks-related injuries. These injuries can be prevented, however, by observing some common-sense, easy to follow guidelines. This article provides a brief overview of the impact of fireworks-related injuries in Texas and a handout of prevention guidelines health professionals can reproduce for their clients.*

**F**ireworks-related injuries are a concern of the Texas Department of Health (TDH) Bureau of Epidemiology. Because epidemiologic data is the foundation of any public health effort, a trauma reporting mandate, enacted in August 1996, requires all hospitals in Texas to electronically report data on major trauma cases\* to the Texas Trauma Registry of the TDH Injury Epidemiology and Surveillance Program. The Texas Trauma Registry examined data received by hospitals for 1996-1998. Of the 30 fireworks-related cases reviewed, 17 occurred on or around the Fourth of July, 6 took place around Christmas or New Year's Day, and the remaining 7 cases at other times throughout the year. The injured ranged in age from infancy (9 months) to 60 years, with 60% being younger than 18 years. All but two persons were male.

Twenty-one patients had first to third degree burns on several body locations. As is to be expected with fireworks injuries, the most common injury sites are the face and hands. Seven of the 21 patients suffered burns and trauma to the eyes, and 3 lost fingers. As is also common, some of those injured were not actively using fireworks: 3 were bystanders.

\* A major trauma case is defined as a case with one or more International Classification of Diseases (ICD-9-CM) diagnosis codes in the 800 - 959.9 range in a patient who has sustained injuries severe enough to benefit from treatment at a trauma facility, whose revised trauma score (RTS) is less than 11, and/or whose injury severity score (ISS) is nine or above.

**Selected Case Histories**

- A fireball from a roman candle hit an 8-year-old boy in the face causing first degree burns around his eye. His wounds required treatment in a major trauma facility.
- An 8-year-old boy received second degree burns on his stomach, thigh, and groin when a firecracker melted his clothing.
- A 33-year-old man lost fingers, fractured his hand, damaged his ear, and received burns to his chest and arms as a result of using homemade fireworks.
- A person picked up an "extinguished" roman candle that went off in a bystander's face. The 8-year-old girl's face and eyes were burned.

**Prevention**

Fireworks injuries are few when compared with other product-related injuries (bicycle injuries, for example). However, these painful and sometimes disfiguring incidents can be prevented by observing guidelines recommended by the United States Consumer Product Safety Commission and the fireworks industry. The attached handout lists these recommendations. It may be reproduced without prior permission to be used for nonprofit health and safety education.



**Prepared by** TDH Injury Epidemiology and Surveillance/Texas Trauma Registry.

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 Tips for a Safer Swim

# Play It Safe With Fireworks!

## Always

**Observe** all state and local laws when using fireworks.

**Read** all labels, warnings and instructions with each firework before using it.

**Supervise** older children closely when they use fireworks. No horseplay.

**Use** fireworks outdoors on a flat smooth surface and away from houses, flammable materials, trees and dry grass.

**Have** a bucket of water or hose close by for emergencies.

**Light** only one firework at a time and keep unused fireworks away from firing areas.

**Store** fireworks in a cool dry place away from anything that could light them.

**Move** to a safe distance after igniting a firework.

**Stay** at a safe distance if you are a bystander.



## Never

**Light** fireworks in a container.

**Relight** a dud. Douse it with water instead.

**Aim** or shoot fireworks at people, buildings, or cars.

**Carry** fireworks in your pocket.

**Use** alcohol or drugs while lighting fireworks.

**Modify** fireworks or make homemade ones.

**Put** any part of your body over the firework while lighting it.

**Allow** children to play with fireworks. Only adults should light fireworks.



*For further information call (512) 458-7266.*



Texas Department of Health  
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## Summertime, and the livin' is...HOT!

### Heat-related Illness

Record high summer temperatures in Texas last summer resulted in over 140 heat-related deaths statewide. The most likely victims of intense, prolonged heat are very young, are age 60 or over, have other health problems, and/or have no access to air conditioning. The combination of high temperatures and high humidity are especially hard on a person's natural cooling system. Dehydration and heat illness can result if a person does not replace fluids and salts lost during perspiration.

Symptoms of heat illness include profuse sweating, muscle cramps, weakness, dizziness, nausea, weak but rapid pulse, and headaches. People with these symptoms should find shade and ventilation and drink water. If fluids are not replaced quickly, heat stroke can follow causing extremely high body temperature, red and dry skin, rapid pulse, confusion, brain damage, loss of consciousness, and eventually death. People with severe symptoms should receive medical help immediately.

The Texas Department of Health Division of Emergency Preparedness offers educational materials for prevention of heat-related illness. These publications include a bilingual flier on heat precautions, a brochure explaining heat illness, instructions for youth activity directors and coaches, and special reminders for nursing home and medical facility administrators. These materials are

available at the TDH website, <http://www.tdh.state.tx.us>. In the *Healthy Community* directory, click on *Emergency Preparedness* and then on the *Texas Heat Wave* logo.

For related *DPN* articles on heat illness and prevention, click on *Disease Prevention News* in the *Prevention* directory and go to the following issues: July 22, 1996 (Vol. 56, No. 15) and September 28, 1998 (Vol. 58, No. 20). Information is also available from local Emergency Medical Services, local health departments, and from the Texas Department of Health at 512/458-7400.

### Water Recreation and Disease Risk

Water recreation is a popular way for people to beat the heat. However, along with the rising air temperature comes rising water temperatures. In natural bodies of water, the higher temperatures encourage growth of disease-causing organisms, which results in an increased risk for infections. The severity of illness can range from a mild infection such as swimmer's ear to the potentially fatal primary amoebic meningoencephalitis. See *DPN* Vol. 57, No. 15 (July 21, 1997) for further information on infections associated with water recreation.

The following precautions are easy to follow and should substantially reduce the risk of water-related illness. For a reproducible flier on safety tips for water recreation activities, see *DPN* Vol. 58, No. 11 (May 25, 1998).

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## Tips For a Safer Swim

When you head for the lake to escape the heat, you don't want to pay for the fun with an ear infection or worse. Follow these easy guidelines to make swimming safer for everyone.



**Swim** in properly maintained pools whenever possible.

**Never** swim in stagnant or polluted water.

**Hold** your nose or use plugs when you jump in the water.

**Wash** skin cuts and abrasions with soap and clean water.

**Avoid** swallowing water when you swim.

**Use** ear plugs as needed.

**Shower** before swimming

**Take** young children to the restroom frequently.

**Make** sure every child who is not toilet trained is wearing a swim suit (or rubber pants) over diapers designed to prevent leaks.

