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Unintentional Campfire-Related Burn Injuries in Oklahoma, 1996-2005

Fire and burn-related injuries are the sixth leading cause of unintentional injury death in Oklahoma and the United States. In November 1986, the Oklahoma State Department of Health made burn/smoke inhalation injuries that resulted in hospitalization or death a reportable condition. The Injury Prevention Service began active, ongoing collection of this information in September 1987. During the 10-year time period 1996-2005, 4,178 Oklahomans were hospitalized in a burn center or died as a result of an unintentional burn or smoke inhalation injury. Of these, 58 (including 1 death) were due to injuries incurred from a campfire. This report describes the occurrence and characteristics of campfire-related burn injuries.

The ages of injured persons ranged from 1 to 63 years, with an average age of 22 years. The average annual injury rate for males was almost four times higher than for females (2.7 vs. 0.7 per million population). Eighty-three percent of the injuries occurred among persons between 1 and 34 years of age (Figure 1). The highest number of injuries among males occurred in the 25-34 year age group, while the highest number of injuries among females occurred in the 0-4 year age group.

A flame/fire was responsible for 90% of the burns while hot solids (including coals, ashes, and smoldering campfires) made up the rest (Figure 2). Within the flame/fire category, the use of a flammable substance (including diesel fuel, gasoline, propane, lantern fluid, and charcoal lighter fluid) or falling into the campfire each made up nearly 30% of the cases. The rest occurred from stepping or rolling into the fire, radiant burns, fire flash, fire play, or other circumstances. The clothing of at least 30% of the injured persons caught fire. The use of alcohol and/or drugs was confirmed or suspected in over half of all burn incidents (55%).

*The INJURY UPDATE is a report produced by the Injury Prevention Service, Oklahoma State Department of Health. Other issues of the INJURY UPDATE may be obtained from the Injury Prevention Service, Oklahoma State Department of Health, 1000 N.E. 10th Street, Oklahoma City, Oklahoma 73117-1299, 405/271-3430 or 1-800-522-0204 (in Oklahoma). INJURY UPDATES and other IPS information are also available at http://ips.health.ok.gov.*
Almost 50% of the burns occurred during the beginning of the annual camping season, May through July (Figure 3), with the largest number occurring in June. The majority (70%) of burns occurred Friday through Sunday, with the peak occurring on Sunday (Figure 4). The time frame of 12:01 a.m. to 4:00 a.m. had the most injuries (Figure 5). Seven people were asleep when the burn injury occurred. Three of these people rolled into the campfire while sleeping, two received radiant burns from sleeping too close to the fire, and the blanket or sleeping bag of two others caught fire as they slept next to the campfire.

A total of 485 days were spent in the hospital for these injuries. The length of hospital stays ranged from less than 24 hours to 45 days, with an average stay of 8 days. The percentage of burns to the body ranged from 1% to 65%, with an average of 10%. Of the 54 cases with insurance information, 44% had private insurance, 26% Medicaid, 26% no insurance, and 4% Indian Health Service.

CASE BRIEFS

- A 1-year-old boy spent seven days in the hospital after sustaining burns to his feet subsequent to walking into a smoldering campfire while camping with his family.
- A 33-year-old man was asleep at his campsite when he rolled over into a campfire catching his clothing on fire.
- A 34-year-old woman under the influence of several illegal drugs passed out in front of a campfire and sustained first and second degree radiant burns to 19% of her body.
• An intoxicated 18-year-old woman was camping out when she tripped on a piece of wood and fell into the campfire. She sustained burns to 10% of her body and spent 10 days in a burn center.

• A 63-year-old homeless man died a week after presenting to the hospital with gangrene of the foot. He was reported to have burned his foot when he fell asleep too close to a campfire. He did not seek medical attention immediately after the incident.

• A 20-year-old man was standing near a campfire when someone threw gasoline on the campfire. He received second and third degree burns to 9% of his body and spent nine days in the hospital.

PREVENTION

Injuries related to campfires take their toll on quality of life and medical costs. These injuries can be prevented by following these tips:

• Carefully watch children and keep them at a safe distance from campfires.
• Wear close-fitting clothing – no scarves or skirts.
• Never use gas or any other flammable liquid to get your fire started or keep it going. Instead, use newspaper and kindling.
• Have a fire extinguisher or a bucket of water handy at all times.
• Keep at least a 3-foot distance between the campfire and anything else. Make sure there is nothing flammable, including dry vegetation near the campfire.
• Place campfires away from tents and sleeping gear; keep fire downwind.
• Never leave a campfire unattended, not even for a minute. Always put out a campfire when going to sleep or leaving the campsite.

Remember, alcohol, drugs, and campfires don't mix: the majority of campfire burns are associated with alcohol use, so it is best to avoid drinking when there is a campfire burning.

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