Massachusetts Burn Injury Reporting System

2005 Annual Report

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Executive Summary

In 2005, the twenty-first full year of the Massachusetts Burn Injury Reporting System (M-BIRS), 47 acute care hospitals and other health care facilities reported 369 victims of burns. Forty-two (42) of these 369 victims received care at two Massachusetts hospitals and were reported to the system twice. M-BIRS was established in the Department of Public Safety in 1984 as a tool to help fire service and law enforcement personnel identify arsonists that may have been burned while setting fires. M-BIRS, along with the Office of the State Fire Marshal, was carried over to the Department of Fire Services in 1996. It remains a joint program of the Department of Fire Services and the Massachusetts Department of Public Health. The "Burn Registry" also provides valuable data on the nature of the burn problem in the Commonwealth.

Massachusetts is renowned for its medical institutions and in particular for the advanced treatment available for burn and trauma victims. Many advances in treatment that have lead to increased ability for victims to survive serious burn injuries took place in Massachusetts. Those advances started in the desperate days after the deadly 1942 nightclub fire at Boston's Cocoanut Grove and continue today.

Statutory Authority for M-BIRS in MGL 112, Section 12A
According to Massachusetts General Law (MGL) Chapter 112, Section 12A, the treatment of all burn injuries extending over 5% or more of a person's body surface area must be reported immediately to the State Fire Marshal.

M-BIRS Has Two Main Purposes — Identifying Arsonists and Burn Prevention
Data collected by the Massachusetts Burn Injury Reporting System is used in several ways. Investigators use the data to determine if an arsonist was treated for a burn that resulted from an attempt to illegally burn a building or vehicle. If these burns are not reported promptly, arsonists may continue to light fires that threaten life and property.

Our data has also been used to identify problems that need to be addressed by public education, regulation or development of appropriate intervention strategies. We need to know what type of activity injures whom, if the injuries are seasonal and how old the victims are to develop and implement effective prevention programs. We appreciate the efforts of the many dedicated doctors, nurses and clerical personnel who report the burn injuries promptly and completely. They make the program work.

Painful, disfiguring and expensive burn injuries exact a tremendous toll from their victims, their families and society. The statistics in this report illustrate the need for more burn prevention education and indicate to whom specific safety messages should be targeted.

State Fire Marshal Stephen D. Coan invites health and medical professionals, classroom and community educators, day care teachers and elder service workers to join with him in making the Commonwealth safer from burn injuries.

Alert to Improve Safety for Floor Refinishing Workers
DPH and DFS have collaborated on a fire safety alert on the hazards of floor finishing. This alert, which will be distributed to floor finishing contractors throughout the state, recommends use of nonflammable products (flash points less than 100^{o}F) for indoor application.

Scalds Caused Over 1/3 of Reported Burn Injuries
Scalds have been the leading cause of burn injuries for the past 20 years. In 2005, scalds caused 130, or 35%, of the burn injuries reported to M-BIRS. Spilled hot beverages caused the majority of scald burns. Hot tap water, cooking liquids and grease, and hot food also caused scald burns.

Keep Hot Liquids Away from Babies and Preschoolers
In 2005, young children were the most frequent victims of scald burns. Forty-three percent (43%) of the 130 scald victims were under five years old, and most were less than one year old. Children under five years of age were seven times more likely to be scalded. Hot beverages posed the greatest risk to young children; parents and caregivers of young children must remember that it is dangerous to drink coffee or tea while holding a baby.

Set Hot Water Heaters at 125° F or Lower
Hot tap water is also a danger to very young children. It takes only one second of exposure to water at 155°F to cause a third degree burn. Hot water heaters should be set to temperatures of 125° F or lower. Massachusetts state law states that the temperature must be set between 110°F and 130°F. Parents should never leave a baby or toddler alone in a bath. Young children like to turn knobs and use levers and they may turn on the hot water when a parent is distracted.

Kitchen is a Dangerous Place
A significant number of the burn injuries occur in the kitchen each year. Flame burns such as sleeves igniting while cooking, scald burns from grease splatters and hot liquids while cooking, many hot coffee and tea spills, contact burns from touching hot stoves, take place in the kitchen. Since we must cook every day, we must learn to do so safely. Children should also be kept in a safe area such as a high chair or playpen while cooking is taking place.

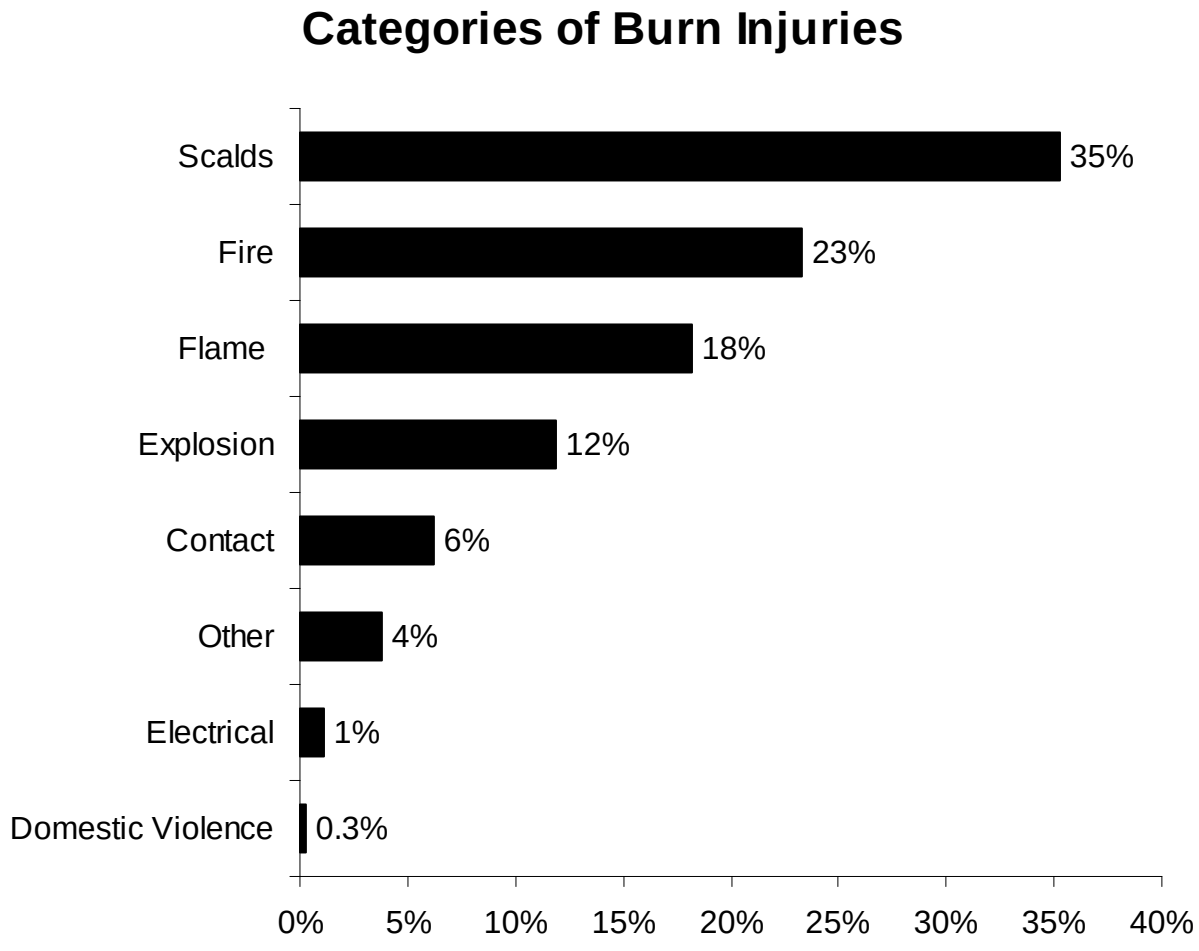
44% of Burns from Fire Are from House Fires
Burn injuries from fires were the second highest cause of burn injuries in 2005 accounting for 23% of the burn injuries. House fires caused 44% of these burns, camp or bon fires caused 28%; and motor vehicle fires caused 16% of burn injuries caused by fires.

14% of Burns Work-Related
Hospitals reported that 14% of the burn victims were burned while working, up from the 12% reported in 2005. Eighty-seven percent (87%), of the people burned while working were male.

2/3 of Burns Occurred in the Victim's Home
Of the 369 burn injuries reported to M-BIRS in 2005, 240, or 65%, occurred in the victim's home or surrounding yard. Forty percent (40%) of these burn injuries were scalds. Eight (8), or 3%, of the home-related burn injuries resulted in the victim succumbing to his or her injuries.

Causes of Burn Injuries

In this report, we look at burn injuries in two different ways. In the first section, we look at the type of incident that caused the burn. Was the burn caused by a fire, a flame, a scald or something else? A burn is said to result from a flame when the fire is confined to the victim or the victim's clothing. When a wider area burns, the injury is considered to result from fire.

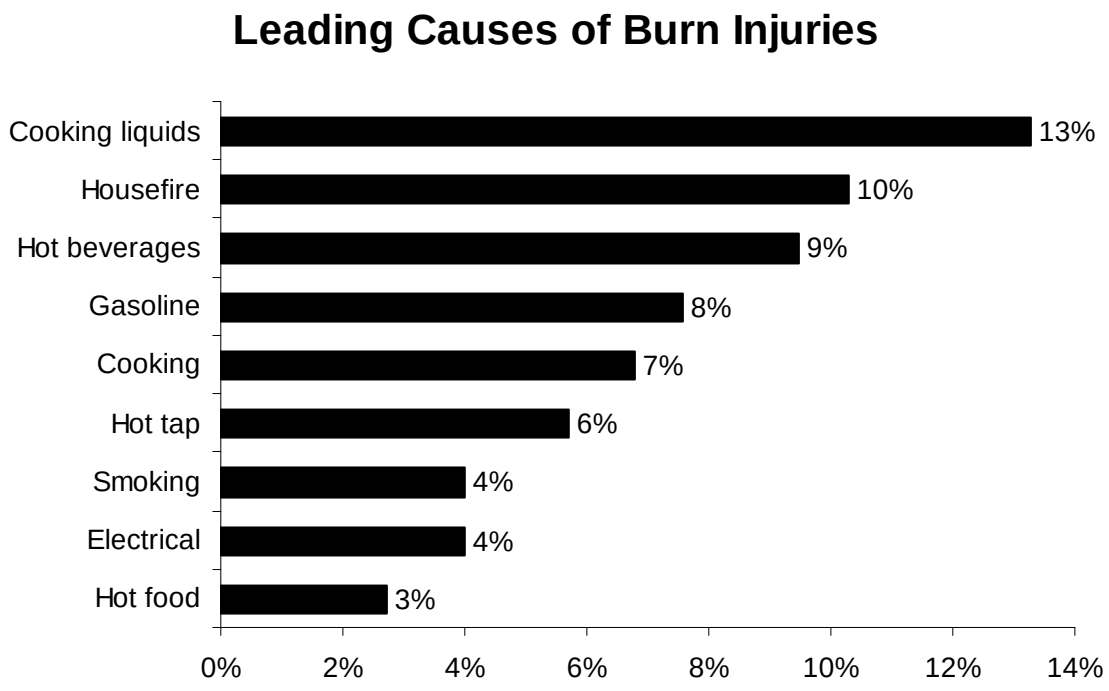


We also look at more specific causes such as hot beverage scalds or incidents involving gasoline.

Type of Incidents Causing Burn Injuries

Over 1/3 of All Burn Victims Never Come Near a Flame
Scalds from hot liquids, cooking grease and steam caused 35% of the 369 burn injuries reported in 2005. Twenty-three percent (23%) were caused by fires. Flames from burning clothing, bedding or similar objects caused 18% of the burns; 12% were caused by explosions, and 6% were caused by contact with hot objects. Electrical incidents such as electrocutions, flashburns[1] and explosions caused 1% of the burns. Less than 1% (0.3%) of the burn victims involved domestic violence. Four percent (4%) of the reported burns in 2005 had other causes, such as chemical burns or sunburns.

Look at Specific Causes and Equipment to Develop Prevention Strategies
To develop effective burn prevention policies and programs, we must first look at the specific items or behaviors that caused the burns. Thirteen percent (13%) of the 369 burn injuries reported in 2005 were scalds from cooking liquids. House fires caused 10% of the burn injuries in 2005. Nine percent (9%) of the burns were caused by hot beverages. This is a continuation of the familiar trend that was interrupted in 2003 when house fires overtook hot beverages as the leading cause of burn injuries. Gasoline use by adults was involved in 8% and unspecified cooking acts caused 7% of all 2005 burns. Hot tap water caused 6% of the burn injuries. Smoking and unspecified electrical burns each caused 4% of the burn injuries in Massachusetts in 2005. Hot foods accounted for 3% of the burns reported in 2005. For more information, please refer to the table *Specific Causes of Burn Injuries* in the Appendix.

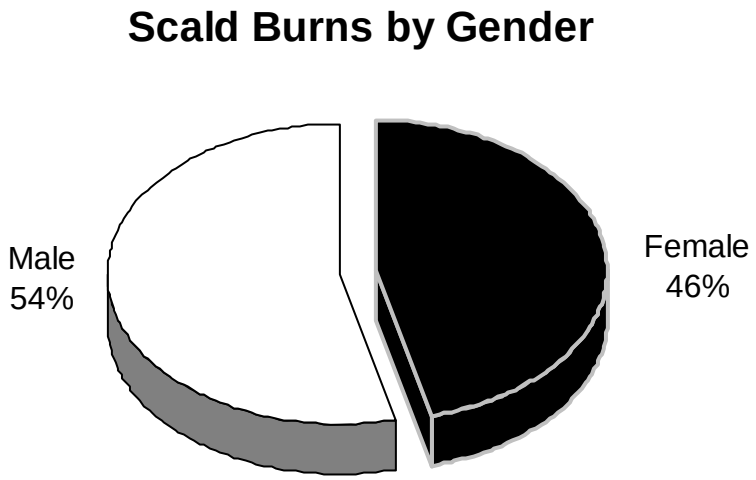


[1] A flashburn is a burn caused by short-term exposure to super-heated air generally from an explosion; there is no direct contact with flame.

Burn Injuries Caused by Scalds

Scalds Caused 35% of All Burns
Scalds have been the leading cause of burn injuries every year since the inception of M-BIRS. Over the past 10 years, scalds have averaged 42% of total burns. The percentage of total burns has declined from a high of 47% in 1998 to a low of 35% in 2005. The 10-year average from 1996 through 2005 is 41%[3] of total annual reported burns.

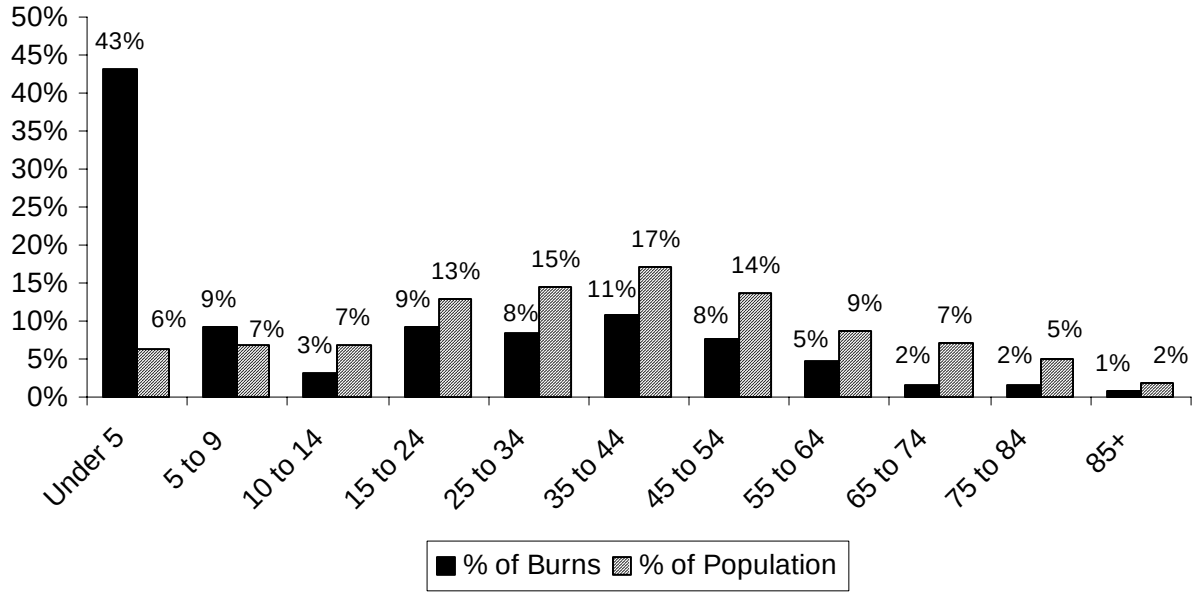
One hundred thirty (130), or 35%, of the 369 reported burns were hot scalds. Twenty (20), or 15%, of the 130 scalds occurred while the victim was working. Seventy (70), or 54%, of the 130 scald victims were male and 60, or 46%, were female.



Children Under 5 Years Old Were Most at Risk for Scald Burns
Young children were the most frequent victims of scald burns. According to the 2000 U.S. Census, children under the age of five comprised 6% of the Massachusetts population. However that same age group accounted for 43% of all scald burns in 2005. Thirty-three (33), or 25%, were infants one year old or younger. Children aged five to nine accounted for 9%, while children aged 10 to 14 accounted for 3% of these injuries.

[3] In 2003, Scalds represented 36% of all the burns reported to M-BIRS. However if not for The Station nightclub fire victims that were treated in Massachusetts, scalds would have represented 38% which would still be the second lowest in the past 10 years.

Scalds by Age Group



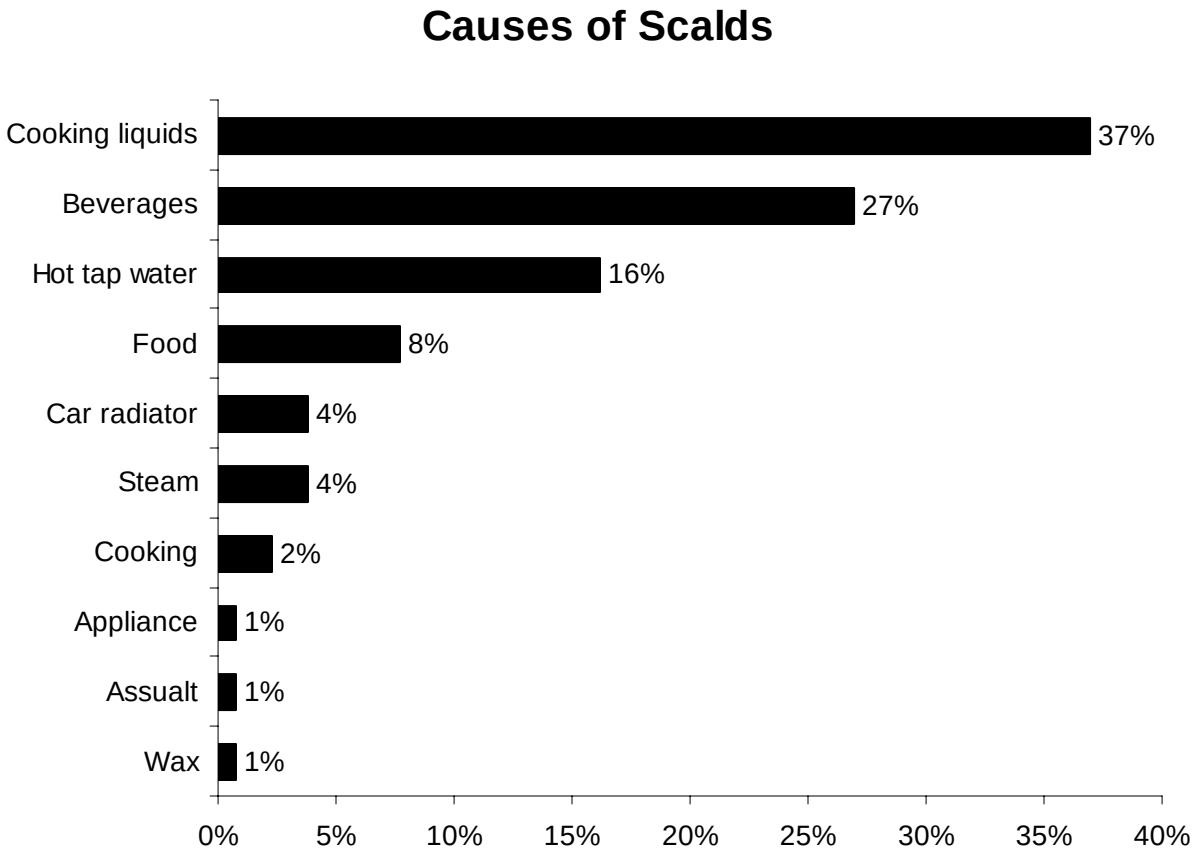
Pre-schoolers 7 Times More Likely to Suffer Scald Burns

Many adults also suffered burns from scalds. Nine percent (9%) were between 15 and 24 years old; 8% were between 25 and 34; 11% were between 35 and 44 years of age; 8% were between 45 and 54; 5% were between 55 and 64; 2% were between 65 and 74; 2% were between 75 and 84; and 1% were over the age of 85. A four-month old boy was the youngest scald burn victim, while the oldest person was an 86-year old woman. When the shaded bar of the graph representing the percent of scald burns is higher than the striped bar representing percent of population, higher than expected risk at this type of injury exists. Only pre-schoolers were scalded at a disproportionate rate; they were seven times more likely to suffer a scald burn.

Cooking Liquids Caused Over 1/3 of All Scald Burns

Cooking liquids accounted for 37% of all scald burns. This is only the second year since the beginning of M-BIRS in 1984 that hot beverages was not the leading cause of scald burns[4]. Twenty-seven percent (27%), of the 130 scald burns were caused by hot beverages. Sixteen percent (16%) were caused by hot tap water. Eight percent (8%) were caused by hot foods. Four percent (4%) were caused by car radiators. Steam caused another 4% of these scald burn injuries. Unspecified cooking acts were responsible for 2% of these injuries. An appliance, an assault, and hot wax were each the source in 1% of the reported scald burn injuries in 2005.

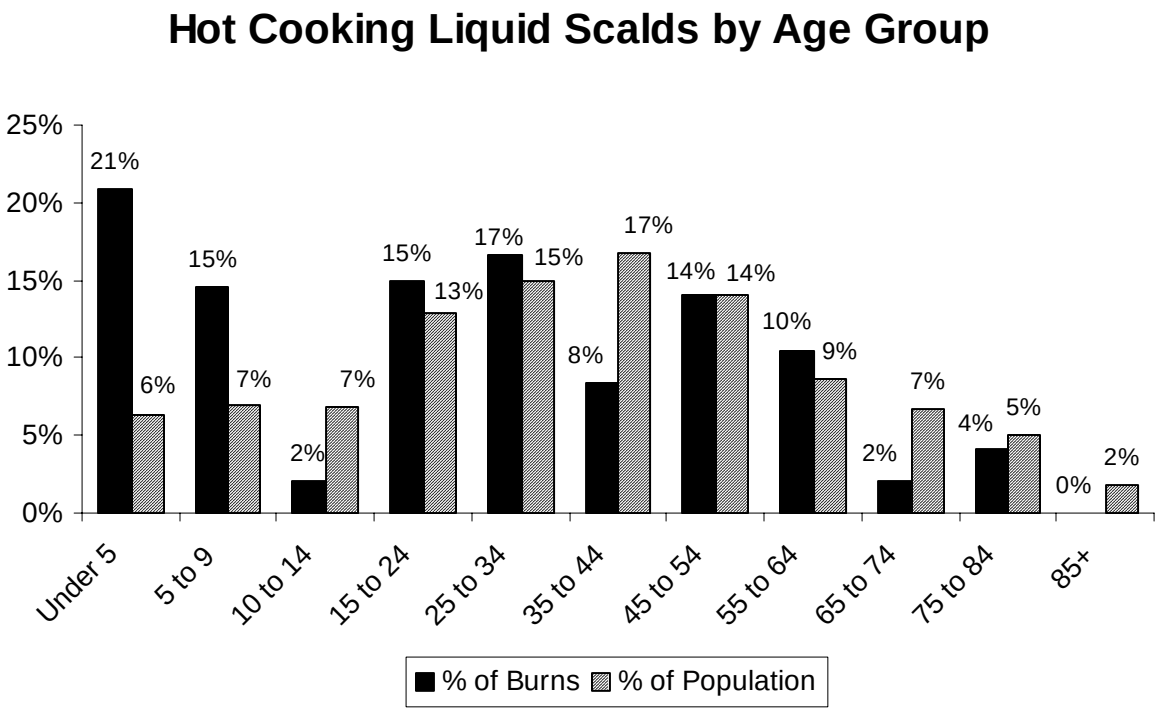
[4] In 1999 scald burns from cooking liquids were one percentage point higher than scald burns from hot beverages.



Hot Cooking Liquids

Hot Cooking Liquids Caused 37% of Scalds, 13% of All Burns

Hot cooking liquids which includes boiling water, grease and oil, caused 48, or 37%, of the 130 scald burns and 19% of the 369 total burn injuries reported in 2005. Sixty-seven percent (67%) of the victims were male and 33% were female. Hot cooking liquids scalded eight people while they were at work, seven men and one women.



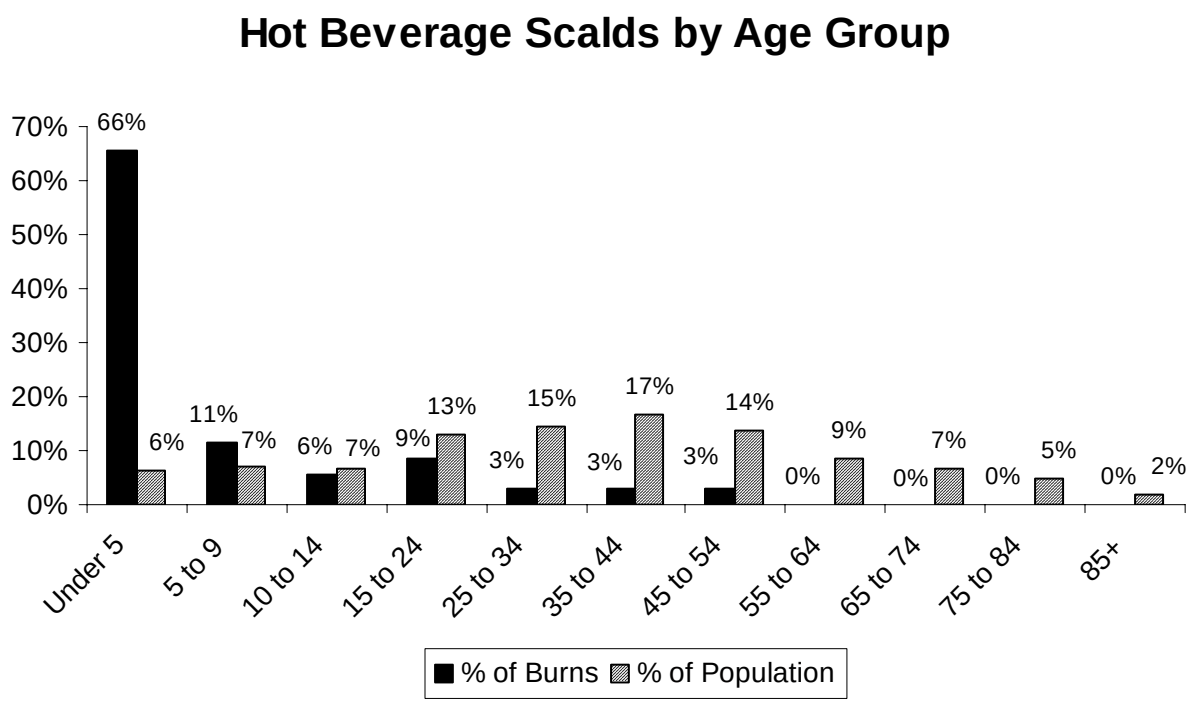
Almost 1/4 of Cooking Liquid Scald Victims Were Under the Age of 5
Those most likely to be under foot in the kitchen were most at risk to be burned by hot liquids on the stovetop. Twenty-one percent (21%) of the cooking liquid scald victims were under five years old. They were 3.3 times more likely to be victims of a hot cooking liquid scald. Fifteen percent (15%) were children between the ages of five and nine. This is a strong reversal from 2004 when no children in this age group were burned by cooking liquids. Two percent (2%) of these injuries occurred within the age group between 10 and 14; members of the age group between 15 and 24 were in the third highest group of scalds caused by hot cooking liquids accounting for 15%; 17% were between 25 and 34, the second highest group of hot cooking liquid scalds; 8% were between 35 and 44; 14% were between 45 and 54; 10% were between 55 and 64; 2% were between 65 and 74; 4% were between 75 and 84; no one over the age of 83 received a scald burn injury from hot cooking liquids. The youngest hot cooking liquid scald burn victim was a one-year old boy, while the oldest person to have one of these burns was a 83-year old woman.

Hot Beverages

Hot Beverages Caused Over 1/4 of All Scalds
Thirty-five (35), or 27%, of the 130 scald burns were caused by hot beverages. In 2004, hot beverages were responsible for 52, or 35%, of all scald burns. This is a strong down turn. These 35 burns accounted for 9% of the 369 burn injuries reported in 2005. Hot beverages have been

the leading cause of scald burns since the inception of M-BIRS in 1984 except for 1999 and 2005.

Fifty-four percent (54%) of the 35 hot beverage scald victims were male and 46% were female. In 2005 three people, two women and one man, were reported to receive a hot beverage scald while working.



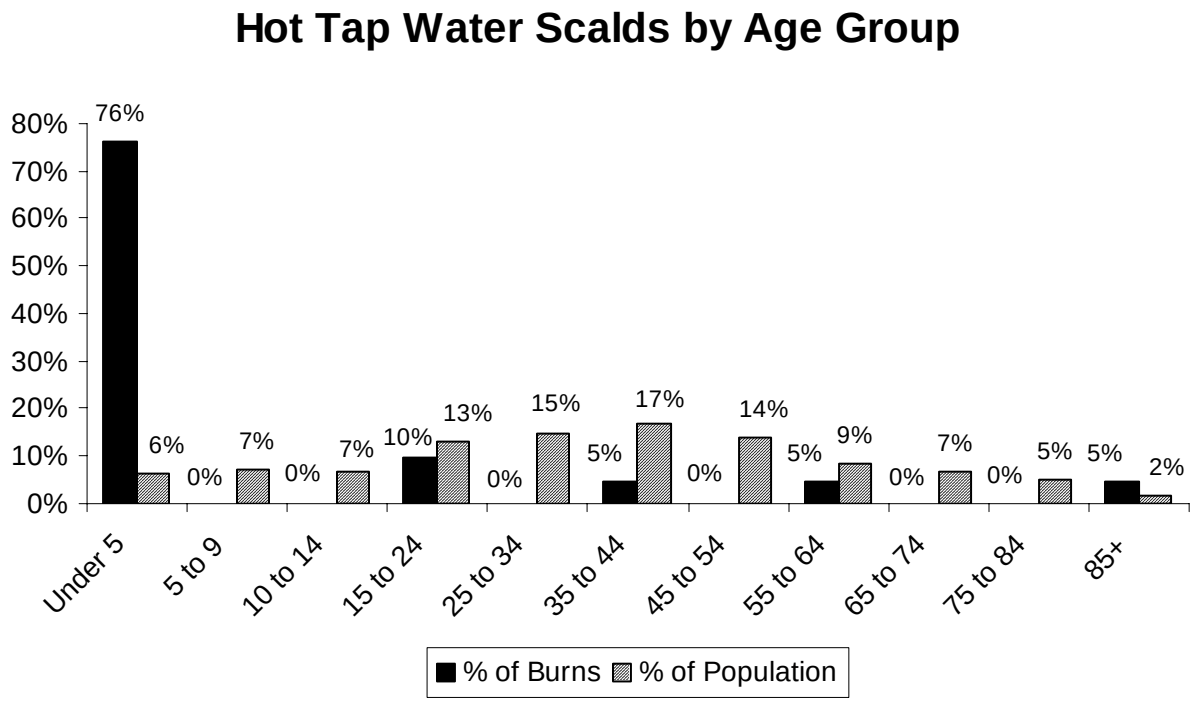
2/3 of the Hot Beverage Scald Victims Were Under 5
Sixty-six percent (66%) of the 35 hot beverage scald victims of known age were less than five years of age. Children under five years old were 11 times more likely to be scalded by a hot beverage. Fifteen (15), or 43%, of the victims who were scalded were one-year old or younger. Another seven, or 20%, were two or three-year old toddlers. In the previous year, 81% of the victims of hot beverage scalds were less than five years old.

Eleven percent (11%) of the hot beverage scald victims were between five and nine years old; 6% were between the ages of 10 and 14; 9% were between the ages of 15 and 24; 3% were between 25 and 34; another 3% were between 35 and 44; 3% were between 45 and 54; no one over the age of 54 received a scald burn injury from hot beverages in 2005. A one-year-old boy and girl were the youngest hot beverage scald burn victims, while the oldest person was a 54-year old woman.

Hot Tap Water

Hot Tap Water Caused 16% of All Scalds
Excessively hot tap water caused 21, or 16%, of the 130 scald burns and 6% of the 369 total burn injuries reported to M-BIRS in 2005. Hot water heaters should be set to temperatures of 125º Fahrenheit or less. Massachusetts law states that the temperature must be set between 110º and 130º F and most dishwashers have coils to boost their internal water temperature. It is important for homeowners to make sure their own water heaters are set in the appropriate range. At 155º F it takes only one second to sustain a third degree burn. At 130º F it takes thirty seconds. At 120º F it can take a full five minutes to sustain a third degree burn.[2] Adults may prepare a safe bath, but a child may turn on the hot water if left alone for a moment or two. Experts recommend placing a child in the tub facing away from the faucet.

Fifty-seven percent (57%) of victims were female while the other 43% were male. This is a continuation of last year's reversal as in 2004, 70% were female and 30% were male, and in 2003 it was 52% male and 48% female; and since the beginning of M-BIRS 53% of the hot tap water scald victims have been men and 47% have been women. Only one of the 33 victims, a 50-year old man, was scalded during work-related activities.



Over 3/4 of Tap Water Scald Victims Were Under the Age of 5
Seventy-six percent (76%) of the 21 hot tap water scald victims of known age were less than five years old. Some were very young infants placed in water that was too hot for their sensitive skin. Other children were interested in exploring their environment and turned on faucets.

[2] Source: Knapp Burn Foundation

There were no victims of hot tap water scalds between the ages of five and 14 years old; 10% were between 15 and 24 years of age; no one between the ages of 25 and 34 received a scald burn from hot tap water in 2005; 5% were between 35 and 44; no one between the ages of 45 and 54 received a scald burn from hot tap water; another 5% of hot tap water scald victims between 55 and 64; no one between the ages of 65 and 84 received hot tap water scalds; and yet another 5% were over the age of 85. The youngest hot tap water scald burn victims were a three-month old boy and girl, while the oldest person to have one of these burns was an 86-year old woman.

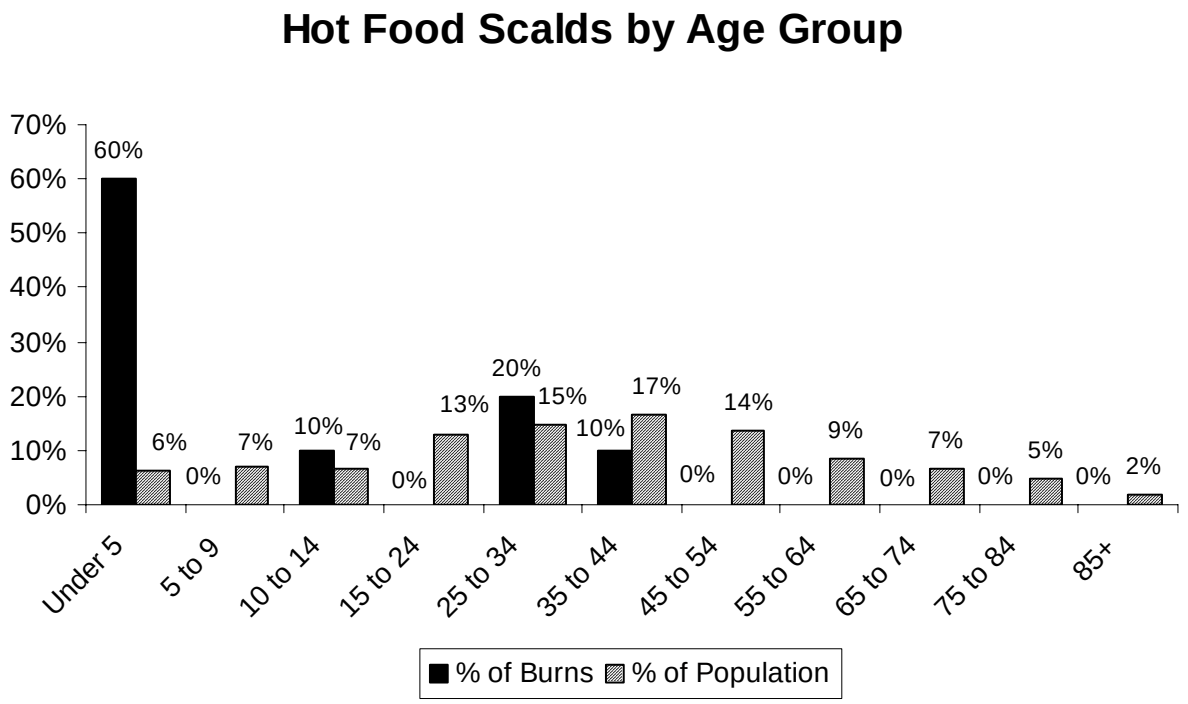
3-Month Olds Receive Scald Burns in Tub
On August 16, 2005, a 3-month old boy received burns to 10% of his body surface area. The first degree burns were to his chest and abdomen. He received his burns from hot water trickling out of the faucet while he was in the bathtub.

On April 30, 2005, a 3-year old girl was scalded in the sink while she was being given a bath. She received burns to approximately 7% of her body.

Hot Food

Hot Food Caused 8% of Scalds, 3% of All Burns
Hot food caused 10, or 8%, of the 130 scald burns and 3% of the 369 total burn injuries reported in 2005. Sixty percent (60%) of the victims were female and 40% were male. There were two work-related hot food scalds reported in 2005, one man and one woman.

60% of Hot Food Scald Victims Were Under 5
Of the 10 reported scald victims from hot food in 2005, 60%, were under five years old; one victim, or 10%, were between 10 and 14; two victims (20%) were between 25 and 34; and another victim (10%) was between 35 and 44 years old. There were no reported hot food scald burn injuries to anyone between the ages of five and nine, 15 and 24, or to anyone over the age of 52. The youngest hot food scald burn victims were a one-year old boy and girl, while the oldest person to have one of these burns was a 52-year old woman.



Car Radiators

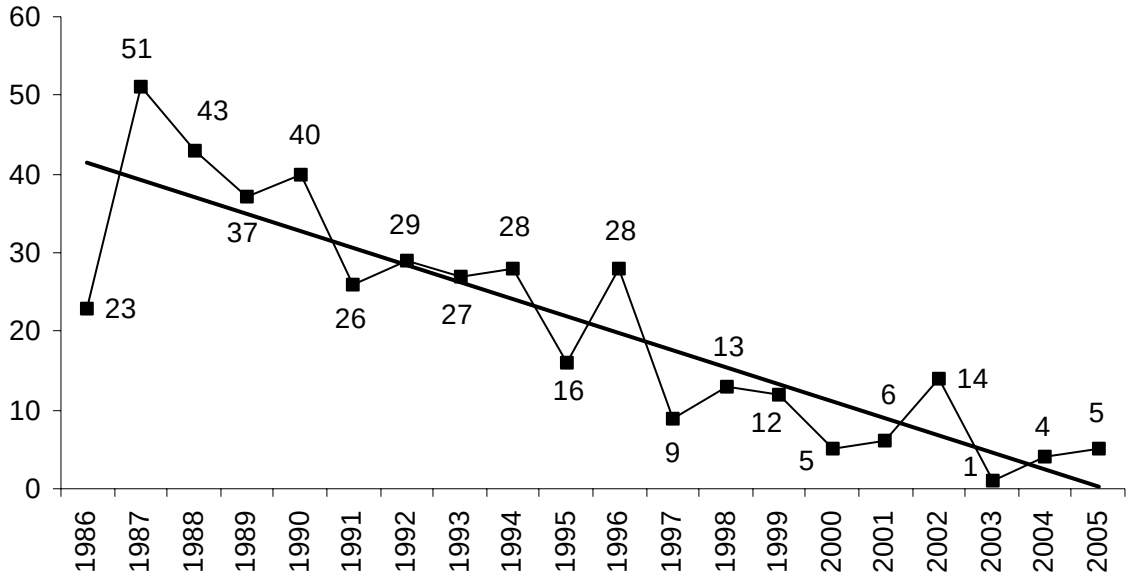
Five Reported Car Radiator Scald Burns In 2005

In 2005, there were five reported scald burn injuries caused by the improper opening of a hot car radiator. Three (3), or 60% of the five victims, were male and two, or 40% were female. One (20%) car radiator scald victim was between the ages of 15 and 24, three (60%) were between 35 and 44; and the other victim (20%) was between the ages of 45 and 54 years old. These five injuries are a slight increase over the four injuries reported in 2004. As the chart below depicts, even though there have been some years where the number of reported car radiator burns has increased from one year to the next, only twice has there been an increase two years in a row, from 2000 to 2002 and from 2003 to 2005. But when working with such small numbers, even the slightest increase can seem disturbing. Overall the trend for the past 19 years has been one of decline. From 1987 to 2005 there was a 90% drop in reported car radiator scald burns. From 1996 to 2005 there was an 82% drop in reported car radiator scald burns.

The main reason for this drastic decline in car radiator scalds is changes in car radiator design. The radiators are now come with pressure relief caps that divert coolant to the overflow reservoirs at lower pressures, and today's coolants work at higher temperatures. These engineering changes have significantly reduced this type of injury.

Four of these five burns occurred during the summer months, two each in July and August, and the fifth occurred in late May.

Number of Car Radiator Scalds by Year



35-Year Old Man Receives Scald Burns to 1/5 of His Body
On July 25, 2005, a 35-year old man received scald burns to 20% of his body when he opened his overheated car radiator.

44-Year Old Man Receives Scald Burns to Chest, Neck & Face
On July 29, 2005, a 44-year old man opened his overheated car radiator and received burns to his chest, neck and face.

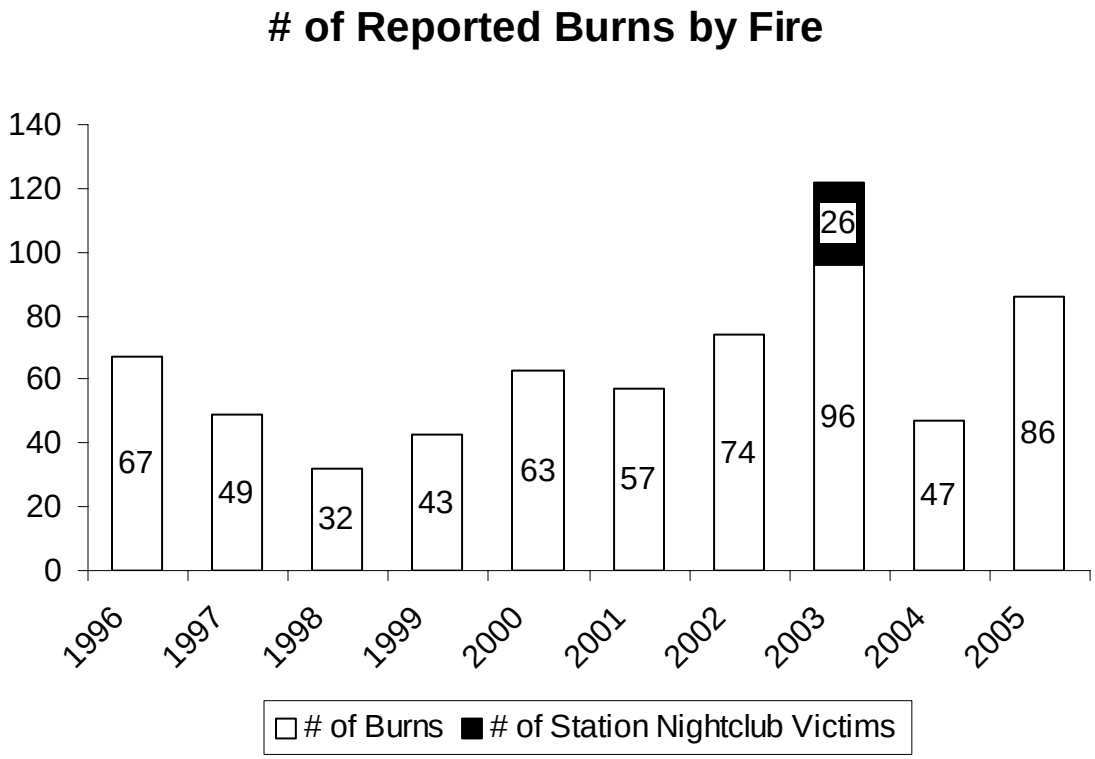
Car Radiator Safety Measures

- ✓ When your car overheats, keep in mind that the contents of the radiator are under tremendous pressure. If you open it, the boiling liquid and steam can erupt and cause severe burns to your hands, arms and face. Wait at least a half hour for the car to cool down, and then use a rag to slowly open the cap, releasing the pressure as slowly as possible.

- ✓ The coolant in your overflow reservoir may also be extremely hot and may also be under pressure. Take the same precautions when opening the coolant reservoir that you would when taking off the radiator cap.

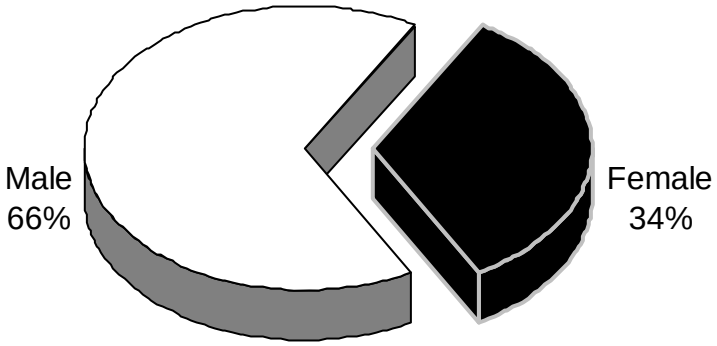
Burn Injuries Caused by Fires

Fires Caused 23% of Burn Injuries
Eighty-six (86), or 23% of the 369 burn injuries reported in 2005 were caused by fires. This is an 83% increase over the 47 fire burns reported in 2004; a 28% decrease from 2003 which included 26 victims from the fire at The Station nightclub in West Warwick, Rhode Island on February 20, 2005. Even if we exclude these victims from our calculations there was still an 8% drop in reported fire burn injuries from 2003 to 2005 and a 26% increase in burn injuries caused by fire from 2002 to 2005. The following graph shows the number of burns from fire reported to M-BIRS from 1996 through 1995.



Sixty-six percent (66%) of the 86 victims were male and 34% were female. Analysis of data from the Massachusetts Fire Incident Reporting System found that the majority of fire injuries occurred while the victim was attempting to control the fire and that men are more likely than women to attempt to control the fire and become injured.

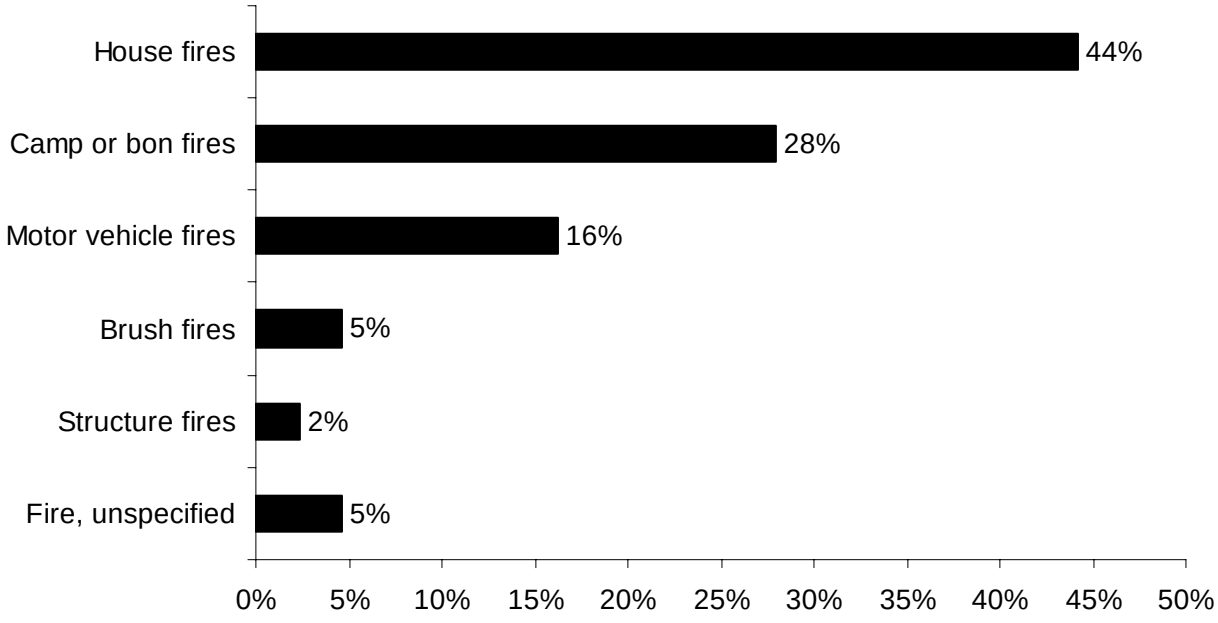
Fire Burn Victims by Gender



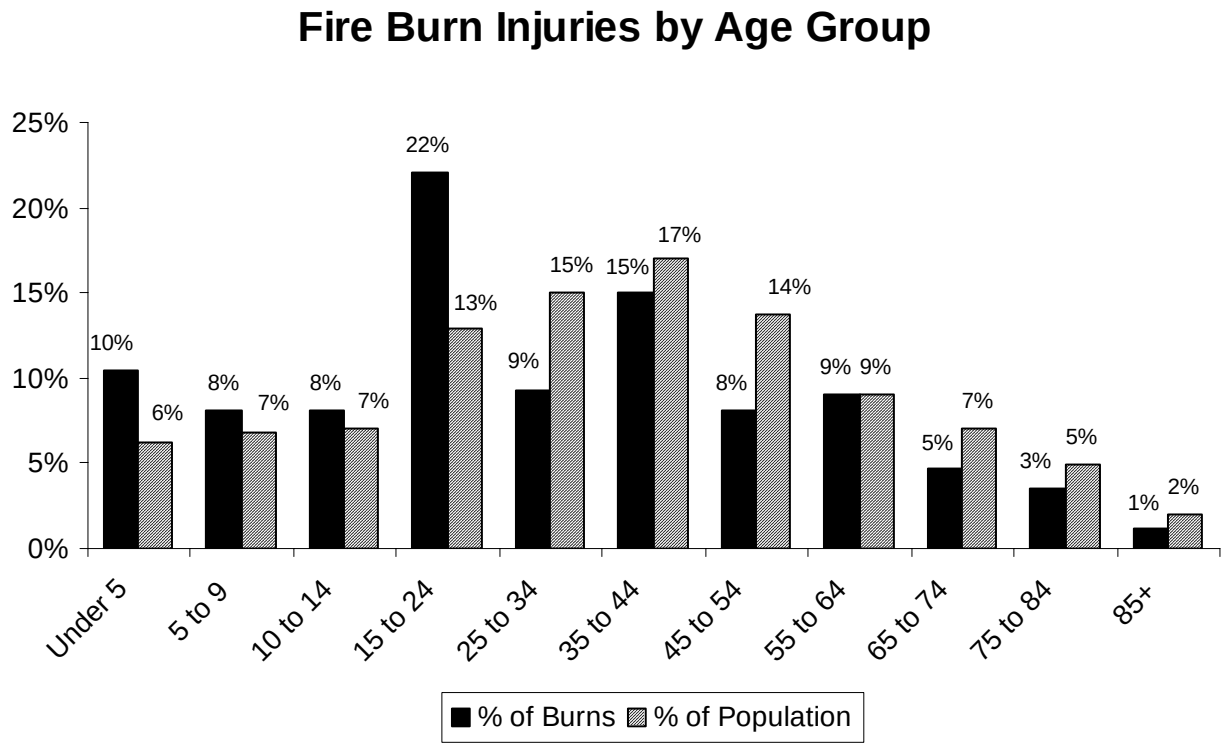
44% of Fire Burn Injuries Occurred in People's Homes

Residential fires caused 38, or 44%, of the 86 fire burn injuries reported in 2005. Twenty-four (24), or 28%, were caused by camp or bon fires; 14, or 16%, were due to motor vehicles fires; four, or 5%, of the victims received their burns in brush fires; two victims, or 2%, were burned in non-residential structure fires; and four victims, or 5%, of fire burn injuries occurred in an unclassified fires.

Types of Fires Causing Burns



Young Adults Most Likely to Be Burned in Fires
Nine, or 10%, of the victims burned in fire incidents were under five years old; seven, or 8%, were between five and nine years of age; another seven, or 8%, were between 10 and 14; 19, or 22%, were between 15 and 24; eight, or 9%, were between 25 and 34; 13, or 15%, were between 35 and 44; seven, or 8%, were between the ages of 45 and 54; eight, or 9%, were between the ages of 55 and 64; four, or 5%, were aged between 65 and 74; three, or 3%, were between 75 and 84; and one victim, or 1%, was over the age of 85 in 2005.



Reported Burns Are a Fraction of Injuries From Fires
Only burn injuries that extend to 5% or more of the body surface area and are treated by a medical professional are reported to the *Massachusetts Burn Injury Reporting System*. Consequently, the human cost of fires is under-reported in this analysis. Smoke inhalation, cuts, fractures and less severe burns incurred while fighting or fleeing the fire are not recorded here. Fire deaths are not recorded. Properly maintained smoke detectors and quick-response residential sprinklers could prevent many of the injuries caused by fires. Detectors should sound an early warning to leave the area and quick-response sprinklers can control or possibly extinguish a fire in its earliest stages.

Refer to MFIRS Annual Report for More Information about Fires
For more information about the causes of fires and fire-related casualties, please refer to the *Massachusetts Fire Incident Reporting System – Annual Reports*. Using data collected by the Massachusetts Fire Incident Reporting System (MFIRS), these reports examine the causes of fires, fire deaths and fire injuries. Information is provided on fires in different occupancies and on special topics such as children and fire, fires caused by smoking, electrical fires, cooking fires and heating equipment fires.

9 Fire Deaths Recorded in M-BIRS
Nine (9) of the victims that were reported to have received their burn injuries from fires died as a result of their injuries. Seven (7) of these were the result of residential structure fires. Of these seven victims, four were injured while smoking, three in bed; two of the fires were started by electrical problems and one was an unspecified house fire. Another victim was a homeless man who fell asleep while smoking and set himself and his bedding on fire; and the other victim was injured using gasoline in a camp fire.

47-Year Old Women Dies While Smoking in Bed
On February 24, 2005, a 47-year old Webster woman received burns to her face, scalp, hands and forearms. She had fallen asleep while smoking in bed. She succumbed to her injuries at a local hospital.

61-Year Old Woman Dies in Electrical Fire
On April 17, 2005, a 61-year old North Andover woman died from burns to over a quarter of her body when the switch box above her boiler malfunctioned and ignited a house fire. She was transported to a local hospital and then transferred to a Boston area hospital where she succumbed to her injuries.

83-Year Old Woman Dies in Electrical Fire
On July 11, 2005, an 83-year old Brockton woman received burns to her head, face and back in a house fire started by a pinched electrical cord from a kitchen appliance.

74-Year Old Women Dies While Smoking in Bed
On July 30, 2005, a 74-year old Brockton woman received burns to 20% of her body surface area. She had fallen asleep while she was smoking in bed. She succumbed to her injuries at a local hospital.

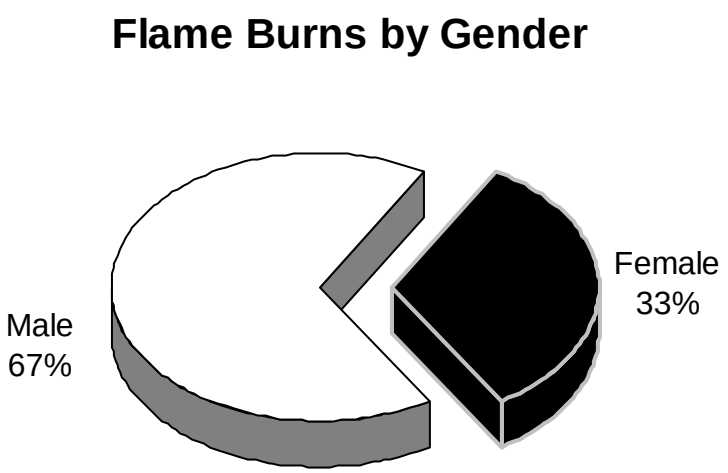
64-Year Old Man Dies from Smoking Fire
On November 23, 2005, a 64-year old Boston man fell asleep while smoking on the toilet. His cigarette ignited the magazine rack. The victim burned over 90% of body surface area. He later succumbed to his injuries at a local hospital.

27-Year Old Severely Burned in MVA
On April 21, 2005, a 27-year old Boston man received burns to half his body when the car he was riding in was involved in an accident and burst into flames. Two others in the vehicle were killed.

Flame Burn Injuries

Flames Caused 18% of Reported Burn Injuries
Sixty-seven (67), or 18%, of the 369 burn injuries reported in 2005 were considered flame burn injuries. A burn is said to result from flame when the fire is confined to the victim or the victim's clothing. When a wider area burns, the cause of the injury is considered a fire. Burns caused by self-immolation, smoking in bed or burning clothing usually result from flames.

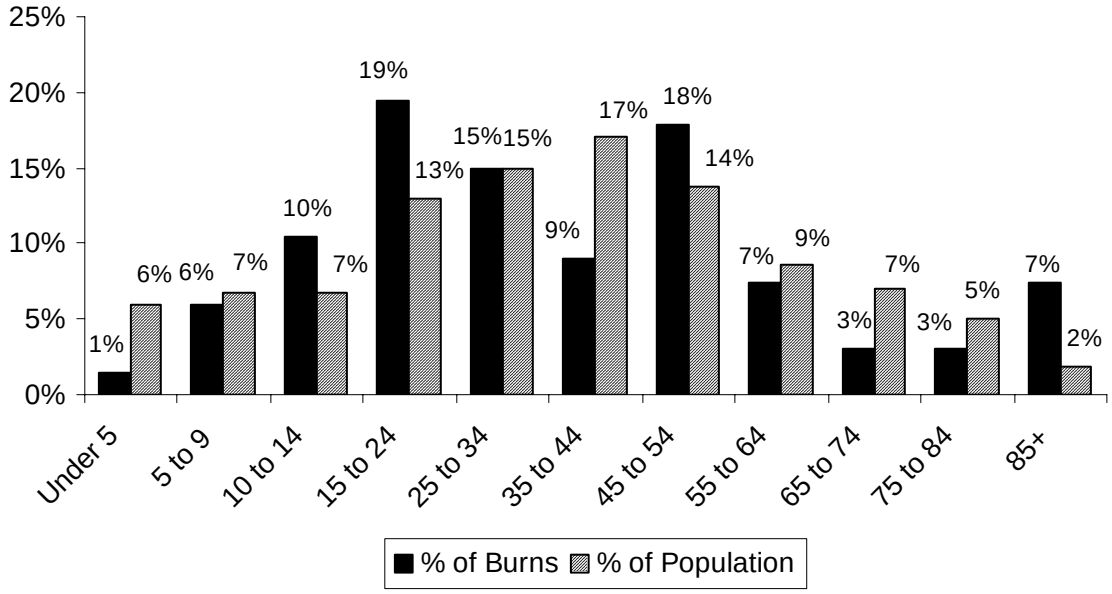
Sixty-seven percent (67%) of the flame burn casualties were male and 33% were female. Nine (9), or 13%, of the 67 flame burns occurred during work-related activities; all nine were men.



Older Adults 85+ Faced Highest Risk of Flame Burns
Four groups were at a higher risk for burns from flames. Children between the ages of 10 and 14 were 1.5 times as likely to be burned by a flame burn injury. Young adults between the ages of 15 and 24 were 1.5 times as likely to receive a flame burn injury. Adults between the ages of 45 and 54, were 1.3 times as likely to be burned, and older adults over the age of 85 were 4 times more likely to receive a flame burn injury.

One percent (1%) of the 67 flame burn victims were children under the age of five; 6% were between the ages of five and nine; 10% were between 10 and 14; 19% were victims with ages 15 to 24; 15% were between 25 and 34; 9% were between 35 and 44; 18% were between 45 and 54; 7% were between 55 and 64; 3% were between 65 and 74; another 3% were between 75 and 84; and 7% were over the age of 85. The youngest person to receive a flame burn injury was a three-year old girl, while the oldest was a 98-year old woman.

Flame Burn Injuries by Age Group



Cooking Was the Leading Cause of Flame Burns

Cooking was the leading cause of flame burn injuries in 2005. Nineteen (19), or 28%, of all flame burn victims received their injuries while cooking. Of these 11, or 16%, involved clothing ignitions while cooking. Two (2), or 3%, of the cooking-related flame burns involved an unreported cooking activity. Two (2), or 3%, of the victims were burned while barbequing. Another two (2), or 2% of the victims, received their flame burn injuries from ignitions of hot cooking liquids, generally grease or oil. One (1), or 1%, of the victims received her injury by coming into contact with a hot stove while another victim (1%) came into contact with a gas stove.

Ignitable Liquids Caused 15% of Flame Burn Injuries

In 2005, ignitable liquids caused 10, or 15%, of flame burn injuries. Gasoline caused nine, or 13%, of the flame burns. The other burn, or 1% of these injuries, was caused by an unspecified ignitable liquid. These 10 burn injuries do not include five flame burn injuries form children playing with gasoline.

Children Playing Were the Third Leading Cause of Flame Burn Injuries

There were six total flame burn injuries from children playing with various objects accounting for 9% of these injuries. Five (5), or 7% of all flame burn victims, were children playing with gasoline; and one child (1%) was injured while playing with matches.

Smoking Caused of 7% of Flame Burn Injuries

Smoking accounted for five, or 7%, of all flame burn injuries in 2005. Three (3) flame burns, or 4%, were from smoking while in bed. One (1) was an ignition from a cigarette lighter accounting for 1% of these injuries; and another victim received a flame burn injury from a lit cigarette, also accounting for 1% of the flame burn injuries in 2005.

Candles, Explosives & Torches Each Involved in 4% of All Flame Burns
Candles were the cause of three, or 4%, of 2005 flame burn injuries. One (1), or 1%, of these three was a clothing ignition from a candle. Explosives also caused three, or 4%, of flame burns. Two (2), or 3%, of these injuries were caused by fireworks, and one, or 1%, was caused by an attempt to make a bomb. Welding and cutting torches were also the cause of three, or 4%, of these flame burn injuries. Two (2), or 3%, were caused by welding and the other one, or 1%, was caused by a cutting torch.

Three people, or 4%, unsuccessfully attempted self-immolation; another three individuals (4%) suffered their burns from unspecified clothing ignitions; and three more people were burned when alcohol was involved, one victim was using rubbing alcohol to light a fire in her fireplace, another was attempting to do a stunt involving a flaming alcoholic drink and the third victim was so intoxicated that he woke up burned.

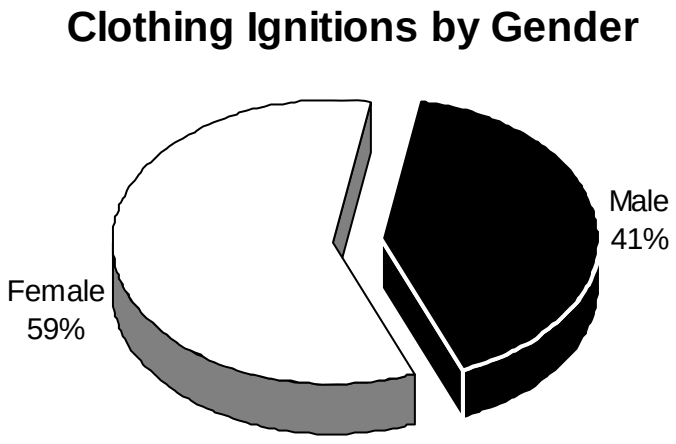
Flammables and propane each caused two, or 3%, of these injuries. Heating equipment also caused two, or 3%, of flame burn injuries. One (1%) of these burns came from a woodstove and another (1%) from an unspecified heater.

An assault, 'cooking' drugs, and a flashburn injury each accounted for one, or 1%, of these burns.

Clothing Ignitions

Clothing Ignitions Account for 1/4 of Flame Burn Injuries
There were 17 clothing ignitions resulting in flame burn injuries accounting for 25% of all flame burn injuries. Clothing ignitions while cooking were the cause of 11, or 16%, of these injuries. One victim, or 1% of the flame burn injuries, received her burn when a candle ignited her clothes. Clothing ignitions from unreported heat sources were responsible for three, or 4%, of the burns. Two (2) victims' clothing ignited while after coming into contact with gasoline, accounting for 3% of all flame burn injuries in 2005

Over 2/3 of Clothing Flame Burn Injuries Were Male
Ten (10), or 59%, of clothing ignition victims were women and seven, or 41% were men.



Over 1/3 of All Flame Burn Injury Victims Due to Clothing Ignitions Were Over 65
Six (6), or 35% of all the victims of flame burn injuries due to clothing ignitions were over 65-years old. All six of these were clothing ignitions while cooking.

One child (6%) under the age of five received a flame burn due to a clothing ignition. Another child (6%) between the ages of five and nine also received one of these burns. No children between the ages of 10 and 14 received one of these injuries. There was one victim in the age group, 15 to 24, accounting for 6% of these burns. No one in the age group 25 to 34 years old received a flame burn due to a clothing ignition. The age groups 35 to 44 had one victim accounting for 6% of the clothing ignition flame burn injuries in 2005. Five victims, or 29%, of flame burn injuries due to clothing ignitions was between 45 and 54 years old. Two victims (12%) were between 55 and 64 years old. No one between the ages of 65 and 74 received a clothing ignition flame burn. There was one victim, or 6% of these types of burn injuries, in the age group 75 to 84 years of age; and five people over the age of 85 (29%) were victims of clothing ignition flame burn injuries. The youngest person to receive a flame burn injury from a clothing ignition was a 3-year old girl whose clothes were ignited when he walked to close to a candle; and the oldest victim from a clothing ignition flame burn injury was a 98-year old woman who received her injuries while cooking.

85-Year Old Woman Nearly Dies from Clothing Ignition While Cooking
On May 5, 2005, an 85-year old Easthampton woman accidentally ignited her clothes while baking at home and received life-threatening burns to her head, arms and torso. She was later discharged from the hospital.

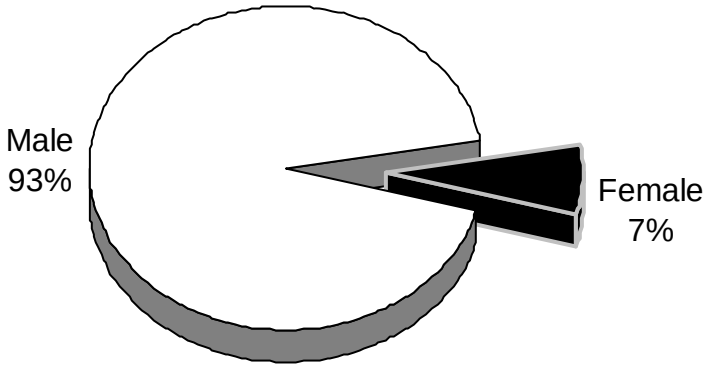
14-Year Old Boy Injures Self While Trying to Make a Bomb
On July 12, 2005, a 14-year old Brockton male teenager burned himself while he was attempting to build a ‘soda bottle’ bomb. He received burns to his legs.

ALWAYS REMEMBER TO:
STOP DROP & ROLL

Burn Injuries Caused by Explosions

Explosions Caused 12% of Reported Burn Injuries
Forty-four (44), or 12%, of the 369 burn injuries reported in 2005 were caused by explosions. Ninety-three percent (93%) of the explosion burn victims were male and 7% were female.

Explosion Burn Injuries by Gender

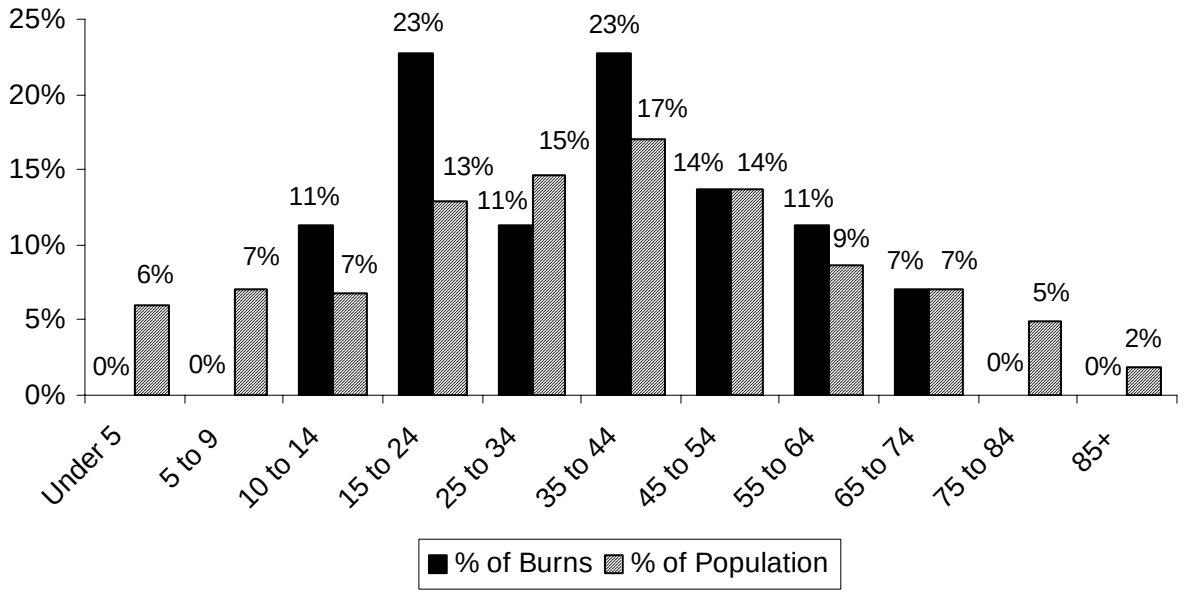


Fifteen (15) burns, or 34%, occurred during work-related activities. All 15 of these work-related victims were male. This is a renewal of the trend where 15, or 42%, of explosions were work-related in 2003, 12, or 40% of explosions in 2002 were work-related, 14, or 38%, were work-related in 2001, in 1999, nine, or 41%, were work-related.

Out of these 44 injuries there were five explosions with two or more injuries. All of these victims except one were men. A husband and wife were injured when their home exploded in New Hampshire. A father was killed and his adult son was injured in an explosion when fumes from the waterproofing material they were using in a Newburyport, MA home came into contact with the pilot of a propane fired furnace. Two men were injured in Salem, NH when their boat exploded. A 55-year old man and his 16-year old son were both injured in an explosion caused by the father pouring gasoline directly into the carburetor of their lawn tractor. Two men were injured when an electrical transformer that they were cleaning in South Boston exploded.

Young Adults Ages 15 to 24 Face Greatest Risk of Explosion Burns
There were no burns from explosions to children under ten years old in 2005; children between the ages of 10 to 14 accounted for five, or 11%, of these injuries; ten, or 23%, were between the ages of 15 to 24; adults between the ages of 25 and 34 received five, or 11%, of the explosion related burns; ten, or 23%, were between 35 and 44, tying the 15 to 24 age group for the most explosion burn injuries in 2005; six, or 14%, were between 45 and 54 years of age; five, or 11%, were between 55 and 64 years old; and three, or 7%, were between 65 to 74 years old. No one over the age of 66 received a burn injury due to an explosion. The youngest victim to receive a burn injury from an explosion in 2005 was an 11-year old boy; and the oldest person to receive one of these burns was a 71-year old woman.

Explosion Burn Injuries by Age Group



Ignitable Liquids Were the Leading Cause of Explosion Burn Injuries
Ignitable liquids accounted for nine, or 20%, of the explosion-related burn injuries in 2005. Eight (8), or 18%, were from adults using gasoline; and one, or 2%, was from a child playing with gasoline. Electricity caused eight, or 18%, of these burn injuries in 2005. Ignitable gases were the third leading cause of explosion injuries, causing seven, or 16%. Six (6), or 14%, of the ignitable gas injuries were caused by propane and one (2%) injury was caused by natural gas . Aerosol cans accounted for for four, or 9%, of these injuries. Explosives also caused four, or 9%, of explosion burn injuries. Fireworks caused three (7%) and a professional grade explosive caused one, or 2%, of explosion injuries. Cooking caused two, or 5%; one (2%) was from an barbeque and the other (2%) was from an stove. Heating equipment also caused two, or 5%, of the explosion burn injuries; one (2%) was from a boiler and the other (2%) was from an unspecified heater. A car part, a flammable material, a motor vehicle accident and an unspecified smoking incident, each accounted for one, or 2%, of the explosion-related burn injuries in 2005. There were also two (5%) injuries caused by unspecified explosions.

26-Year Old Man Injured in Gasoline Explosion
On April 3, 2005, a 26-year Walpole man was working on a car in his grandparents' North Attleboro garage. There was a gasoline explosion and the victim received life-threatening burns to approximately 95% of his body. In August of 2005, he was transferred to a rehabilitation hospital.

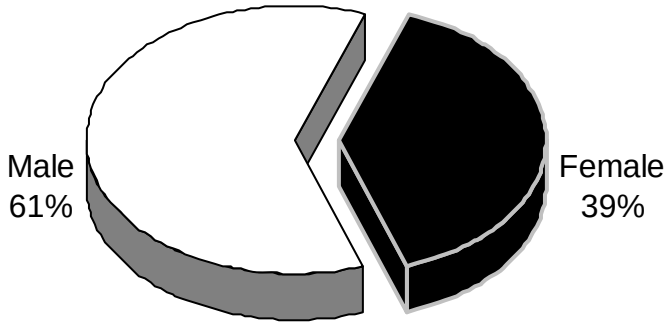
18 & 20-Year Old Workers Receive Life-threatening Injuries While Working
On October 15, 2005, a 20-year old man and his 18-year old assistant were cleaning an electrical transformer when there was an electrical explosion. The explosion threw the victims from their

work positions. The 18-year old worker received life-threatening burns to approximately 70% of his body. The 20-year old man received burns to 6% of body surface area and also suffered other life-threatening injuries.

Contact Burn Injuries

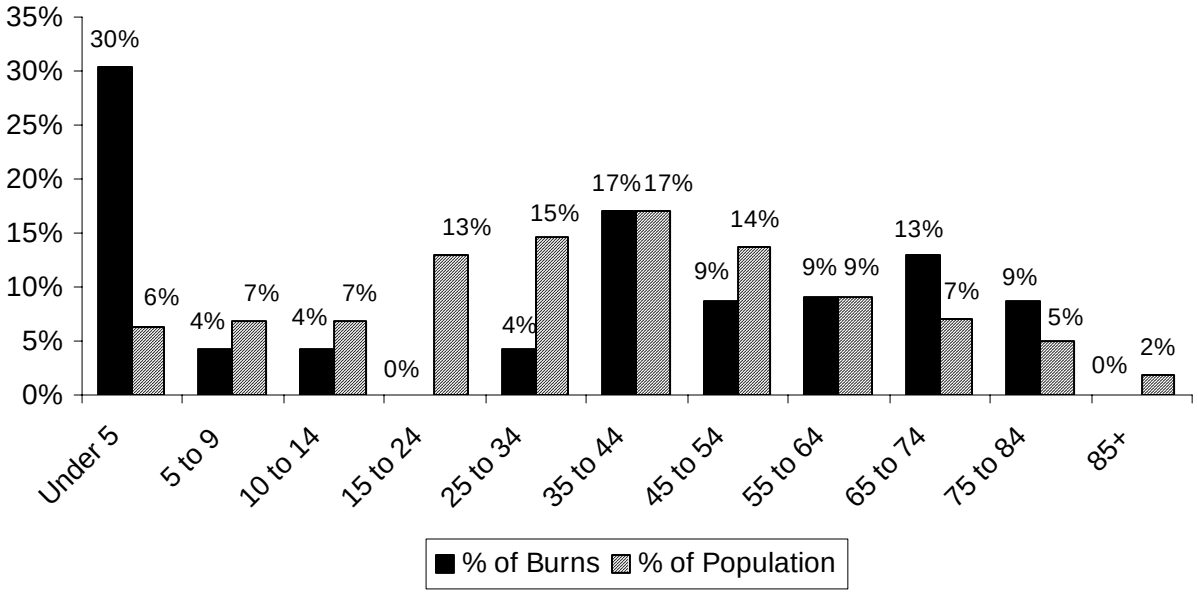
Contact with Hot Objects Caused 6% of Reported Burn Injuries
Twenty-three (23), or 6%, of the 369 burn injuries reported in 2005 were caused by contact with hot objects. Sixty-one percent (61%) of the burn victims were male and 39% were female. Two (2), or 9%, of contact burns occurred at work in 2005.

Contact Burn Injuries by Gender



Almost 1/3 of Contact Burns Were to Children Under 5
Almost one-third of all the 23 contact burns reported in 2005 were to children under the age of five. This age group accounted for seven, or 30%, of all contact burns. Pre-schoolers faced 4.9 times the risk of contact burns or were five times as likely to receive a contact burn. This disproportionate risk could be the result of young children exploring their environment and underscores the need for constant supervision of toddlers. One, or 4%, of these burn victims were between the ages of 5 and 9; one adolescent in the age group between 10 and 14 received a contact burn injury accounting for 4%; there were no contact burn injuries to anyone between the ages of 15 and 24; one, or 4%, of the victims were between 25 and 34; the age group 35 to 44 accounted for four victims, or 17%; two victims were in the age group 45 to 54, and accounted for 9% of these injuries; two more victims (9%) were in the age grouping 55 to 64; three victims, or 13% were between 65 and 74; and two victims, or another 9% of contact burn victims, belonged to the age group 75 to 84 years of age. In 2005, no one over the age of 80 received a burn from contact with a hot object. The youngest person to receive a contact burn in 2005 was a one-year old girl, and the oldest person was an 80-year old man.

Contact Burn Injuries by Age Group



Home Heating Was the Leading Cause of Contact Burns
Contact with home heaters caused four, or 17%, of the contact burns in 2005. Contact with radiators caused two, or 9%, of all contact burns; and contact with a heater and a woodstove each caused one, or 4% of these types of burns. Hot metal and curling irons each caused three, or 13% of all contact burns. Cooking caused three, or 13%, of the 22 reported contact burns in 2005. Contact with a stove, an oven, and an unspecified cooking activity each caused one, or 4%, of these burns. Contact with machines, car parts and asphalt each caused two, or 9%, of the contact burns. A clothes iron, wax, a heating pad and an unspecified electrical problem each caused one, or 4%, of the contact burns in 2005.

There were two work-related contact burn injuries in Massachusetts in 2005. One of these two work-related injuries was a man, the other was a woman.

80-Year Old Woman Burns Self on Radiator
On March 29, 2005, an 80-year old Boston woman fell in her bathroom and came into contact with one of the radiators. She was not discovered for three days and received third and fourth degree burns to her right leg.

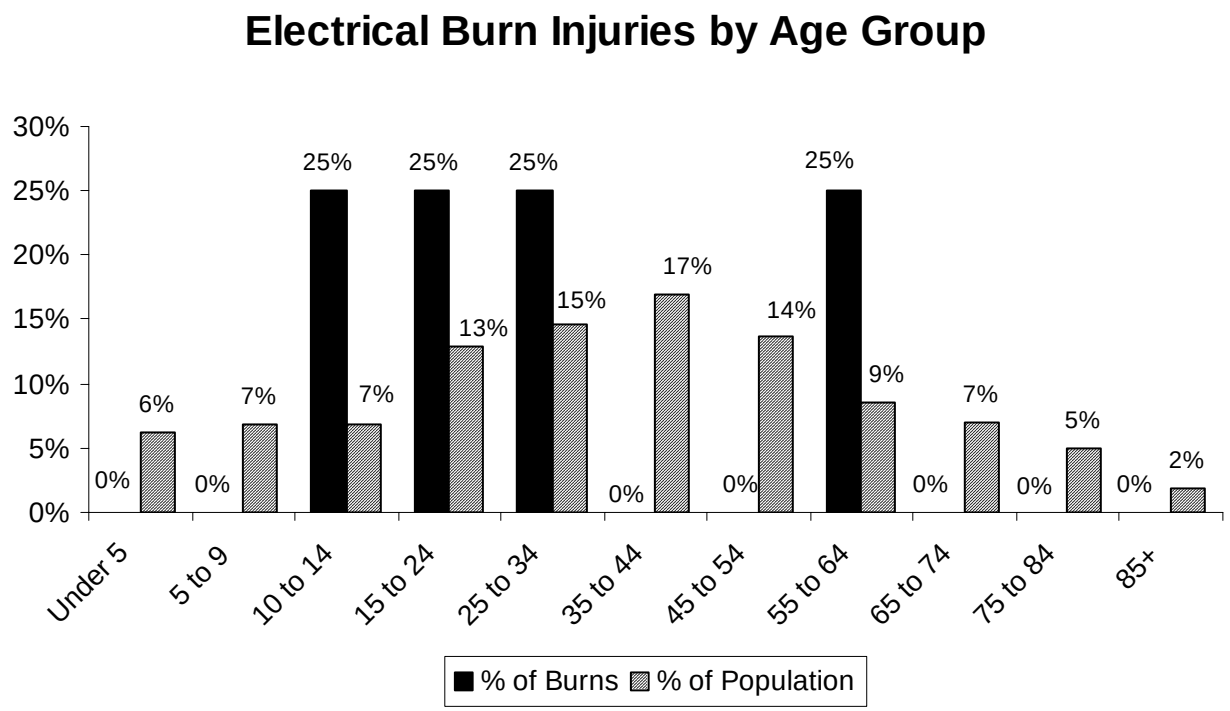
43-Year Old Man Burned by Liquid Asphalt
On August 19, 2005, a 43-year old Somerset man was accidentally splashed with hot liquid asphalt. He received burns to parts of both legs, or approximately 15% of his total body surface area.

45-Year Old Woman Burned by Hot Asphalt
On September 12, 2005, a 45-year old Palmer woman received burns to approximately 18% of her body surface area when she was burned by hot tar in Granby.

Electrical Burn Injuries

Electrical Incidents Caused 1% of Burn Injuries
Four (4), or 1%, of the 369 burn injuries reported in 2005 were caused by electrical accidents. All of the electrical burn victims were male. All four occurred during work-related activities.

All Electrical Burn Victims Were Between the Ages of 11 and 55
No one under the age of 11 and no one over the age of 55 was reported to have received a burn from an electrical source. One (1), or 25% of the victims who received electrical burns, was



between 10 and 14; another of the victims, or 25%, was between 15 and 24; the third victim, or 25%, was between 25 and 34. No one between the ages of 35 and 54 received an electrical burn injury. The last victim belongs to the age group 55 to 64 accounting for 25% of all electrical burns.

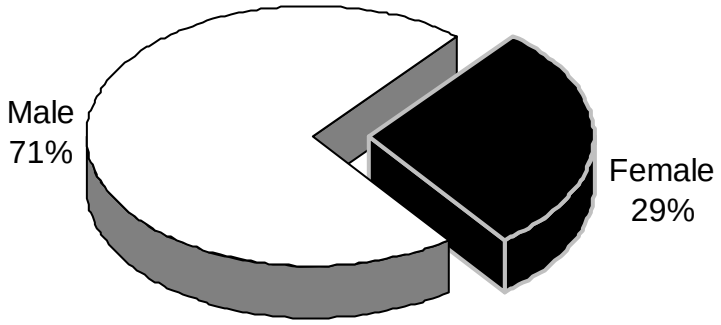
3/4of Electrical Burns Were Caused by Undefined Electrical Accidents
Three (3), or 75%, of the electrical burn injuries in 2005 were from undefined electrical accidents. Electrocutions accounted for the other incident, or 25%, of electrical burns.

55-Year Old Man Touches 3rd Rail
On June 30, 2005, a 55-year old Northampton man received electrical burn injuries at the Ruggles MBTA station. He had fallen onto the tracks and unintentionally came into contact with the electrified third rail. Approximately 30% of his body surface area was burned.

Other Types of Burn Injuries

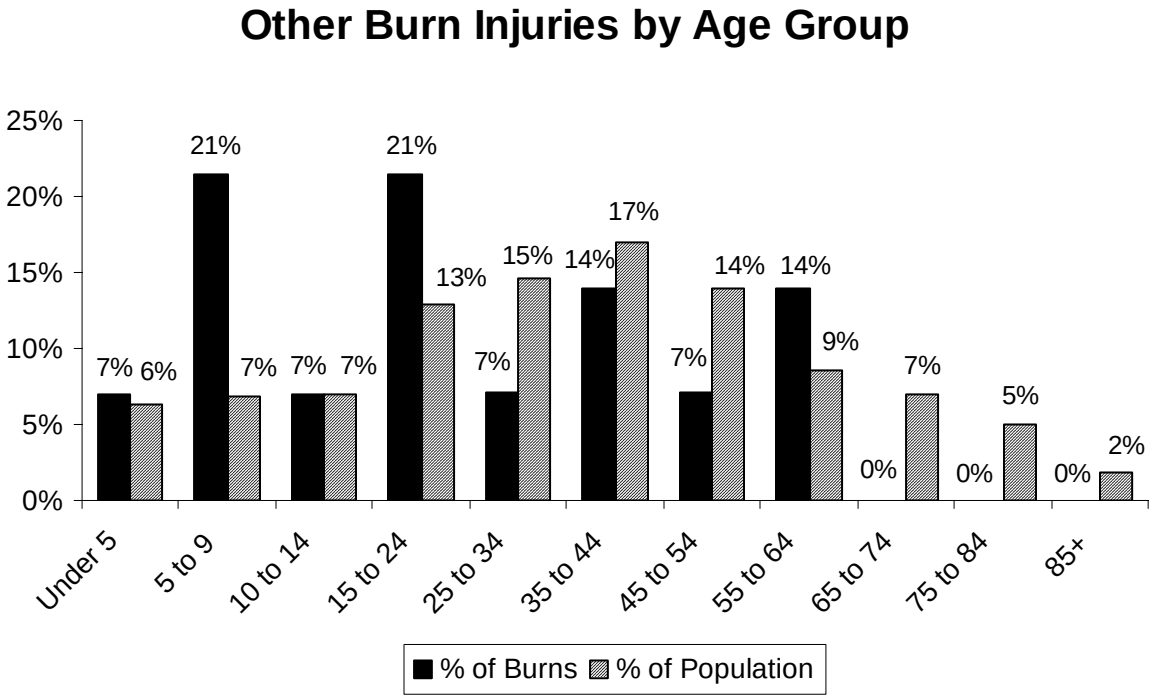
Chemical Exposures & Sunburns Cause 14 *Other* Burns
In 2005 there were 14 burn injuries that were characterized as *Other*. These include eight (8) burns, or 57%, caused by exposure to chemicals. Six (6) *Other* burns, or 43%, were attributed to severe sunburns. Seventy-one percent (71%) of the 14 victims were male and 29% were female. Health care facilities reported that three, or 21%, of the 14 *Other* burn victims were working when injured. Exposure to chemicals is how all three of these victims received their burn injuries.

Other Burn Injuries by Gender



43% of *Other* Burn Victims Were Between 5 & 9 and 15 to 24 Years Old
In 2004 none of the *Other* burn victims were under 17-years old. In 2005, 43% of *Other* burn victims were under 17-years old. One victim, or 7%, of the *Other* burn type victims was under five years old; three, or 21%, were between the ages of five and nine; another victim (7%) was between 10 and 14 years old; three more victims, or another 21%, were between 15 and 24 years old. One (1) victim, or 7%, was between the ages of 25 and 34; two victims, or 14%, were between 35 and 44; a victim (7%) was between the ages of 45 and 54; and two victims, or 14% of all *Other* type burns were between 55 and 64 years old. No one over the age of 58 suffered an

Other burn injury. The youngest victim was a 3-year old boy and the oldest victim was a 58-year old man.



3-Year Old Received Chemical Burn
On January 11, 2005, a 3-year old Springfield boy received burns to his face and tongue when he was trying to eat a battery.

56-Year Old Woman Burned by Bleach
On April 18, 2005, a 56-year old Pittsfield woman received burns to approximately one-quarter of her body surface area when she spilled liquid bleach on herself.

Young Women Badly Sunburned
On August 7, 2005 a 19-year old Marlborough woman was received a sunburn to approximately 80% of her body. On August 17, 2005, a 22-year old Clinton woman was sunburned over 60% of her body.

Burn Injuries Caused by Domestic Violence

In 2005, there was one reported burn injury due to domestic violence. This injury represents 0.3% of the 369 burn injuries reported in 2005.

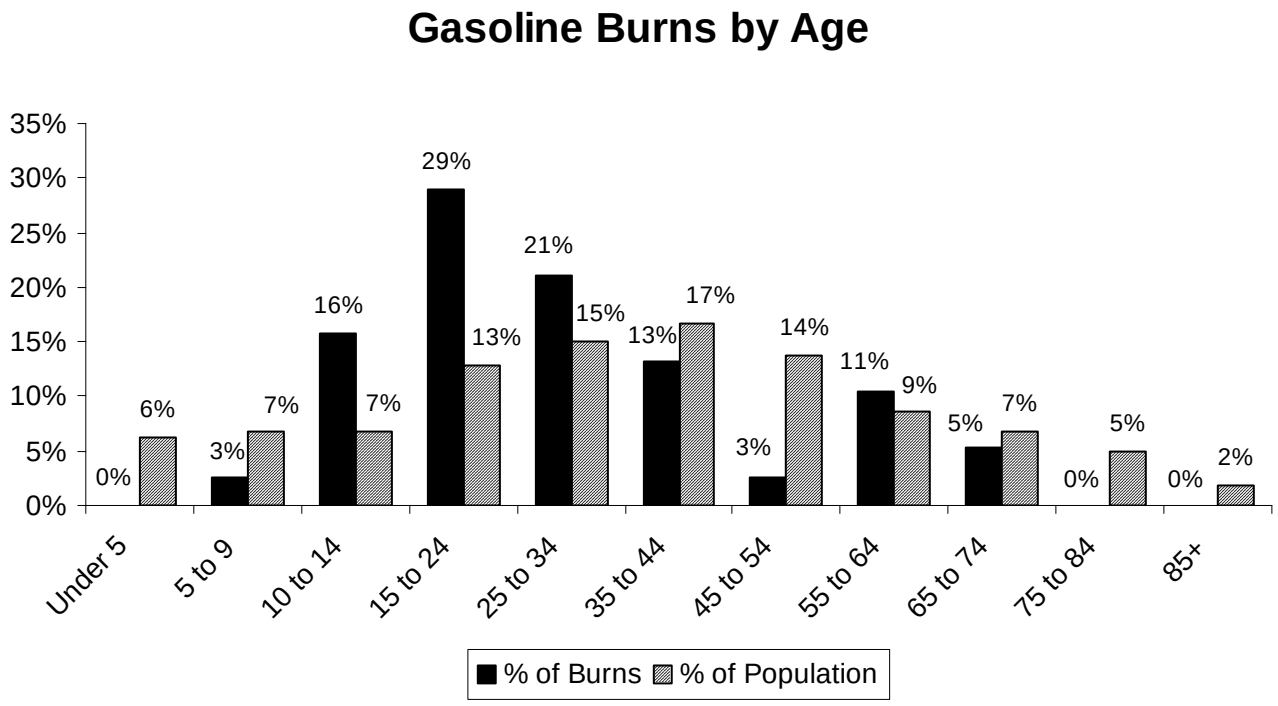
A 38-year old woman received burns due to a domestic violence attack. The victim's husband burned her left leg with a cigarette.

Gasoline Related Burn Injuries

Gasoline Involved in 10% of Reported Burn Injuries
Gasoline was involved in 38, or 10%, of the 369 burns reported to M-BIRS in 2005. Gasoline was the primary cause of the injury in 34, or 90%, of these injuries. Because of more detailed descriptions as to how burn injuries occurred, it was determined that gasoline was also involved in four (10%) other burn injuries that were coded with a different primary description such as an assault, a cigarette, or an act of self-immolation.

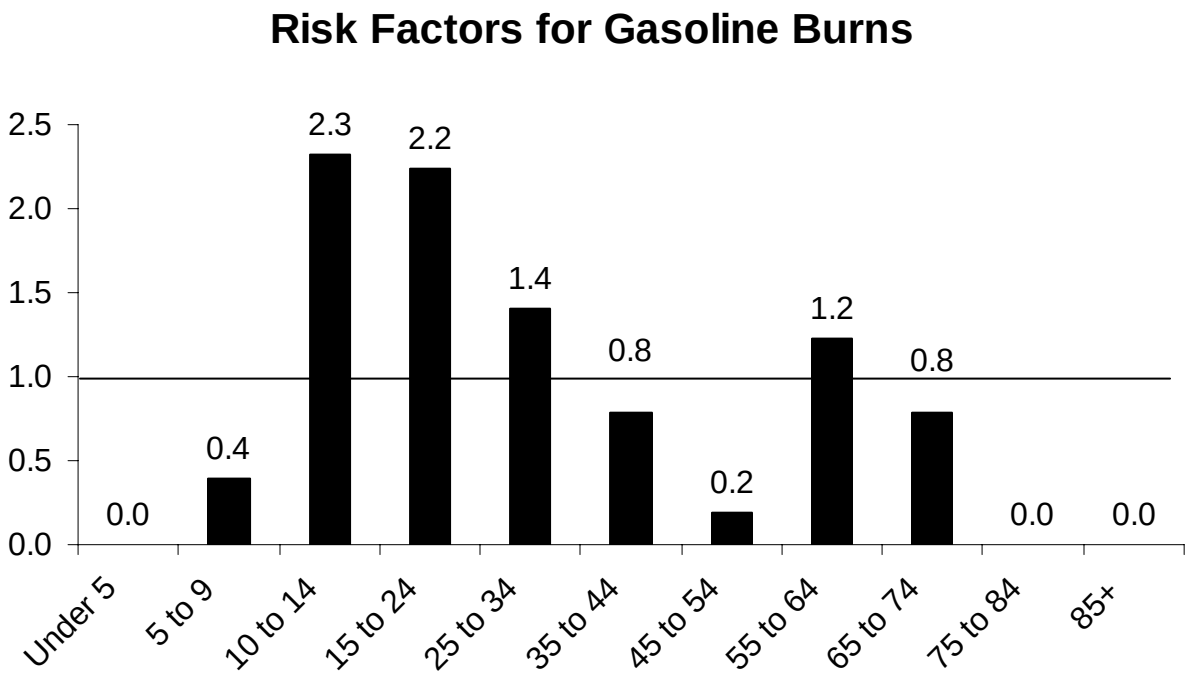
Seventeen (17), or 45%, of the burn injuries involving gasoline were flame burn injuries. Eleven (11), or 29%, of the gasoline related burn injuries were caused by fires. Ten (10), or 26% were the result of explosions involving gasoline. Thirty-three (33), or 87%, of the 38 gasoline related burn victims in 2005 were men, and five, or 13% were women. Four of the injuries occurred during work-related activities, accounting for 11% of all gasoline related burn injuries. Thirteen (13), or 34%, of the gasoline burn injuries in 2005 were to children; 25, or 66% of these injuries occurred to adults.

29% of Gasoline-Related Burn Victims Were Between the Ages of 15 and 24
No one under the age of five received a gasoline-related burn in 2005. One (1) victim, or 3%, was between five and nine years of age. Six (6), or 16%, of the victims were between the ages of



10 and 14 years old. This age group has historically been the most at risk for these types of injuries, and this year this age group continued the trend being 2.3 times at a greater risk of gasoline burn injuries. Eleven (11), or 29%, of the victims were between 15 and 24; young adults in this age group were only slightly less likely than the 10 to 14 year olds, to be burned while handling gasoline, 2.2 times more likely. Eight (8), or 21%, were between 25 and 34; five, or 13% were between 35 and 44; one victim, or 3%, were between the ages of 45 and 54; four, or 11%, were in the age group 55 to 64 years old; and two victims (5%) were between 65 and 74 years old. No one over the age of 67 was the victim of a gasoline burn. The youngest victim was a nine-year old boy and the oldest victim was 67-year old man.

The following graph illustrates the risk factor for gasoline burns by age group. If an age group has a risk factor greater than one it is said that an individual in that age group has a greater risk of being burned by gasoline. If an age group has a risk factor less than one, then individuals in that age group have a lesser risk of receiving any burns by involving gasoline. Adolescents, teenagers and young adults in the age groups 10 to 14 and 15 to 24 had the greatest risk of getting a burn involving gasoline.



It is actually gasoline vapors that burn, not the liquid itself. The vapors are generated at very low temperatures, are heavier than air and can travel a distance to find a spark. A spark or lit cigarette is enough to ignite the invisible fumes that may linger on clothing. Gasoline is a tool, but a dangerous one, and it demands respect.

Gasoline & BBQ Don't Mix

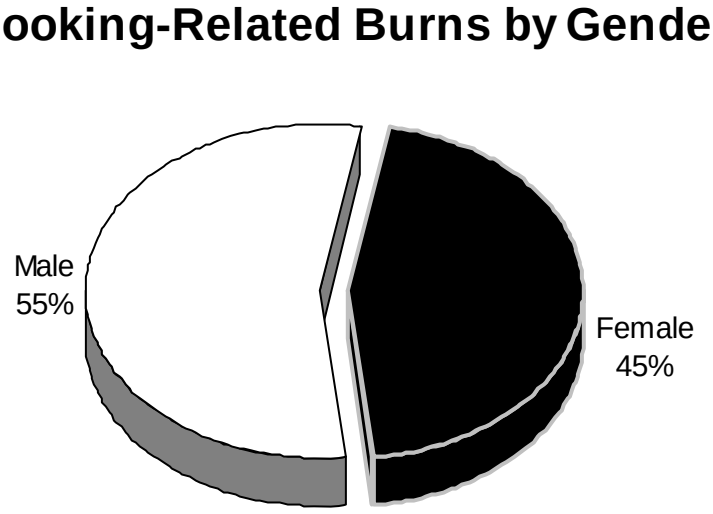
One June 28, 2005, a 23-year old South Boston man was cooking on a barbeque when someone threw gasoline onto the barbeque. The victim received burns to his arms and legs.

37-Year Old Assaulted with Gasoline
On August 5, 2005, a 37-year old Boston man was assaulted when someone came up to him and threw gasoline over him and ignited it. He received second and third degree burns to his face, neck arms and legs.

Some Safety Measures
- If you must store gasoline, store it outside the home in approved safety cans away from open flames (i.e. water heaters and pilot lights) and out of reach of children.
- Never regularly carry gasoline in your trunk.
- A one-gallon approved container could be carried empty to be used only for emergencies.

Burns Caused by Cooking Activities

Cooking Activities Caused Almost 1/4 of Reported Burn Injuries
Cooking activities caused 88, or 24%, of the 369 burn injuries reported to the Massachusetts Burn Injury Reporting System in 2005. Cooking activities were the primary cause of the injury in 86, or 98%, of these injuries. Because of more detailed descriptions as to how burn injuries occurred, it was determined that cooking activities were also involved in two (2%) other burn injuries that were coded with a different primary description such as ' gasoline'. Forty-eight (48), or 55%, of the 88 victims were male and the other 40, or 45%, were female. Twelve (12), or 14%, of the 88 people burned by cooking activities were working when injured.

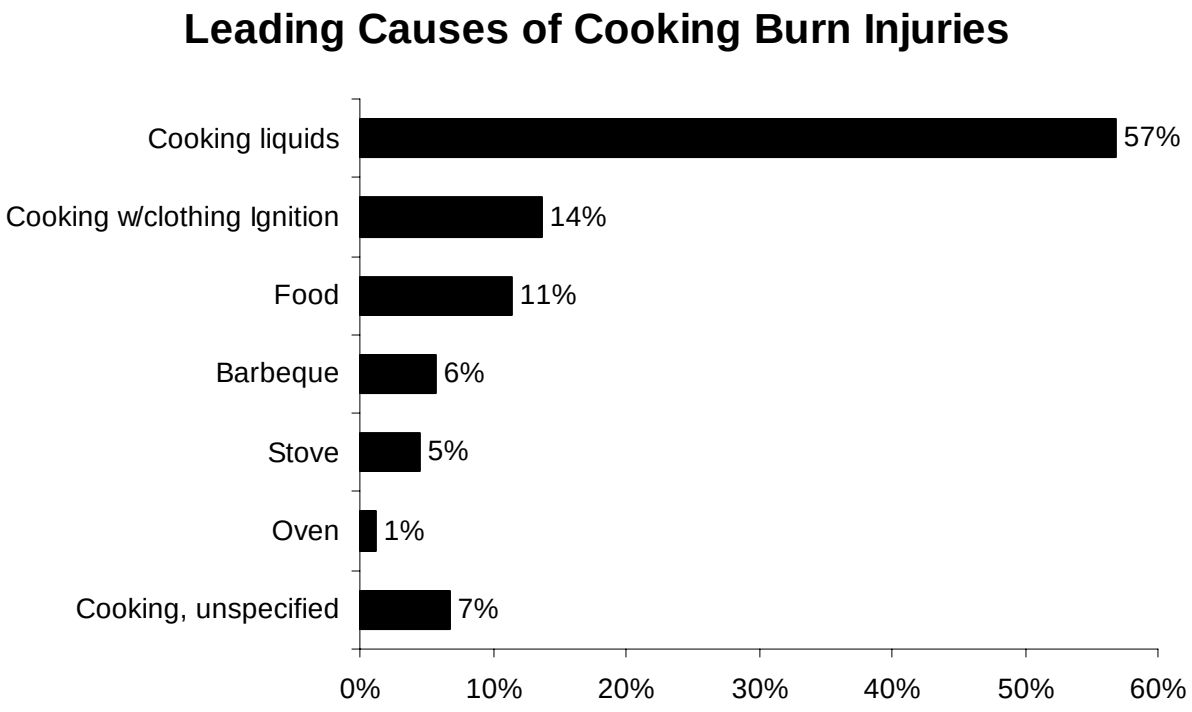


Sixty-one (61), or 69%, of the 88 burn injuries caused by cooking were scalds. Forty-nine (49), or 80%, of these scald victims were injured by hot cooking liquids; hot food accounted for 10, or 16%, of the victims. Twenty-one (21), or 24%, of all cooking-related burns were flame burn injuries. Eleven, or 52% of the cooking-related flame burn victims, were burned when their clothing ignited while cooking. Three (3) victims received their burns from coming into contact with hot stoves, ovens or other cooking equipment, causing 3% of these burns. Two (2) victims received burn injuries in cooking-related explosions, accounting for 2% of cooking burn injuries in 2005. One (1) injury in a house fire caused by clothing ignition while cooking accounting for 1% of the cooking-related burn victims.

Cooking Liquids Were the Leading Cause of Cooking-Related Burns

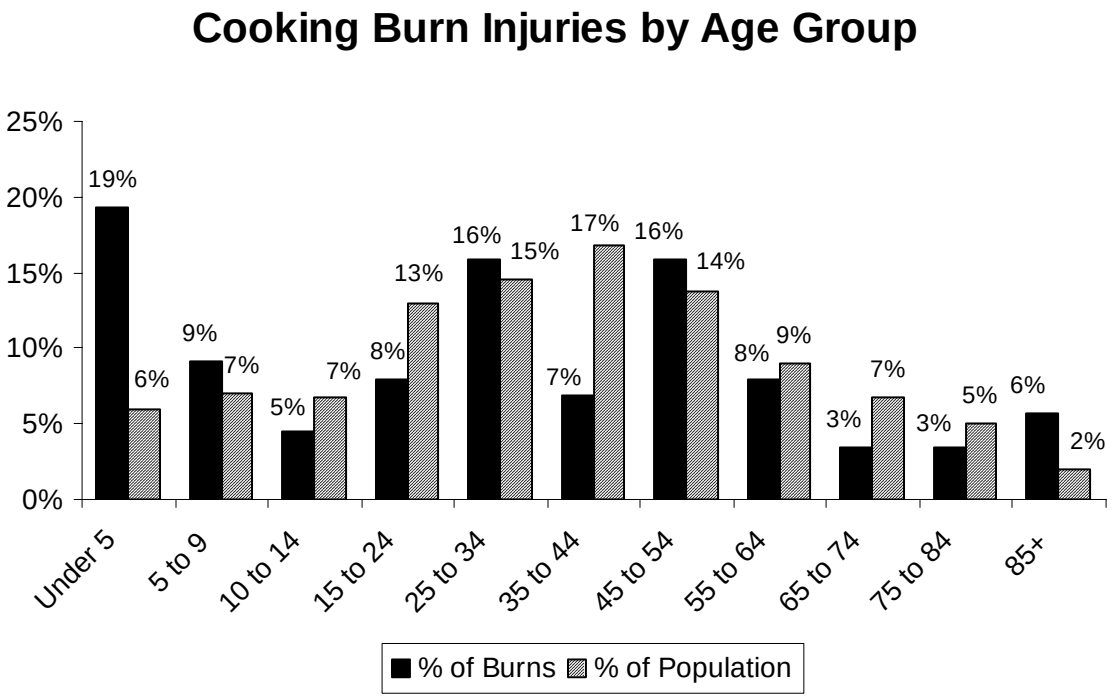
Burns from cooking liquids were the leading cause of all cooking-related burns in Massachusetts in 2005. These burns accounted for 50, or 57%, of all cooking-related burn injuries. Clothing ignitions while cooking were the second leading cause of cooking-related injuries, causing 12, or 14%. Scalds from hot food were the third leading cause of cooking-related injuries. They caused 10, or 11%, of these injuries. Burns received while barbequing accounted for five, or 6%, of all cooking burn injuries. Flame burn injuries from stoves and burns from coming into contact with a hot stove in 2005 accounted for four, or 5%, of these injuries. Burns from conventional ovens caused one, or 1% of these burns; and unspecified cooking activities caused six, or 7%, of the cooking burns in the Commonwealth in 2005.

The following graph shows the leading causes of cooking related burn injuries in Massachusetts in 2005 regardless of the type of burn.



Children Under 5 Were 3.2 Times as Likely to be Burned by Cooking Activities
Seventeen (17), or 19%, of the cooking-related burn victims were under age five. This age group was 3.2 times as likely to be burned by cooking related activities. Eight (8), or 9%, were aged between five and nine years of age; four, or 5%, were between 10 and 14; seven or 8%, were between 15 and 24 years old; 14, or 16%, were between 25 and 34; six, or 7%, were between 35 and 44; another 14, or 16%, were between 45 and 54; seven, or 8%, were between 55 and 64; three victims, or 3%, were between 65 and 74; another three, or 3%, of the victims belong to the age group between 75 and 84 years of age, and five, or 6%, of the victims were over the age of 84 in 2005. The youngest victim of a cooking-related burn was a nine-month old boy, while the oldest victim was a 98-year old woman who received his burn injuries from a clothing ignition while cooking.

The cause of burns varied with age. Pre-schoolers generally do not cook. They do, however, grab pot handles and sometimes get underfoot when adults are cooking. Cooking liquids or cooking grease frequently scalds them. Parents should keep young children away from the stove and food preparation areas while adults are cooking.



Older Adults at Risk for Cooking-Related Burn Injuries
In the past, older adults over the age of 65 were usually more likely to be burned while cooking. However in 2005, 11 older adults received burn injuries as a result of cooking in 2005. They represented 12% of the cooking burn injuries and 14% of the population and so were not injured by cooking at a disproportionate rate. Eight (8), or 73%, of these victims were women and three, or 27%, were men. Six older adults, all women and had their clothing ignite while they were cooking. Three (3) older adults, two women and one man, received scald burn injuries from

cooking liquids. One older man received a contact burn from a stove; and another older man received scald burns from an unspecified cooking activity.

Clothing Ignitions while Cooking
In 2005, 12, or 14% of the victims with cooking-related burns, were injured when their clothing ignited while cooking. Nine (9), or 75%, of the victims of clothing ignitions while cooking were women and three, or 25% were men. Six (6), or half, were 65 years old or older. Loose-fitting sleeves can come into contact with burners and catch fire.

According to data collected by the Massachusetts Fire Incident Reporting System, unattended and other unsafe cooking practices caused 6,650 fires in 2004. These fires killed three civilians and caused 93 civilian injuries and 33 fire service injuries along with $9.5 million in losses. Many of these people also suffered from smoke inhalation

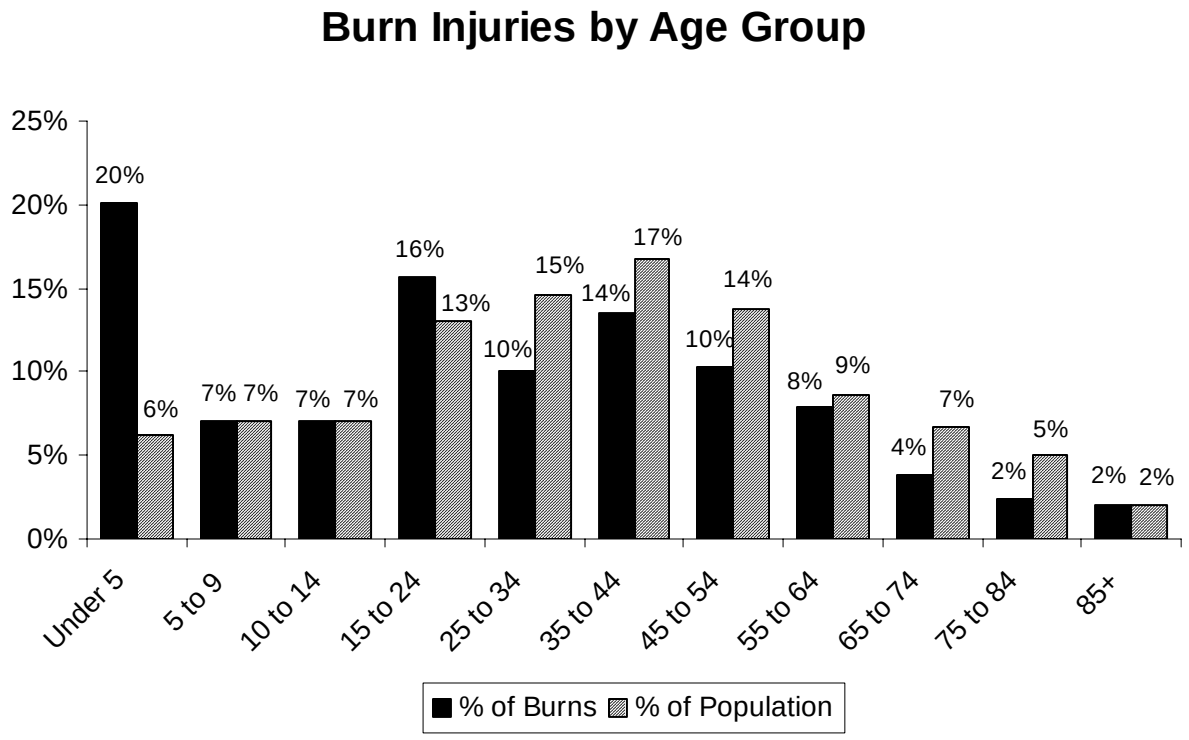
Serious Burns from Cooking
- On January 19, 2005 a 46-year old Medfield man received flame burns to 30% of his body surface area when his sleeve ignited while cooking.
- On June 11, 2005, a 59-year old Scituate woman received scald burn injuries to 30% of her body when she spilled boiling water while cooking.
- On September 19, 2005 a 33-year old Boxborough man burned approximately 30% of his body surface area when he spilled hot cooking oil on himself.
- On November 5, 2005, a 50-year old Haverhill woman received flame burns to approximately 30% of her body surface area while she was cooking at home.

Safety Measures
- ✓ Never leave cooking food unattended.
- ✓ Keep children at a safe distance from all hot items by using playpens, high chairs, etc.
- ✓ Create a safe zone for children.
- ✓ Test all heated food before giving it to young children.
- ✓ Keep pot handles turned in over the stove or countertop.
- ✓ Always use oven mitts or potholders.
- ✓ Secure loose sleeves or wear short sleeves while cooking.
- ✓ Keep a large pot lid handy to put out stovetop fires.
- 💣 Never use water on a stovetop grease fire.
- ✓ Read and follow directions when using microwave ovens and other cooking appliances.
- ✓ Children should not be allowed to use cooking/heating appliances until they are mature enough to understand safe-use procedures and tall enough to safely handle items and reach cooking surfaces.
- ✓ If cabinets exist over cooking surfaces use them to store only items that will not be needed during cooking.
- ✓ When barbequing, use only charcoal lighter fluid to start a fire. Once the coals have been ignited, never add more charcoal lighter fuel to the fire; the container may explode in your hand.
- ✓ Dispose of used coals in a proper metal container away from the house or porch.

Burn Injuries by Age Group

Two groups, the extremely young and senior parts of our population are generally at a greater risk of getting a burn injury. Although burn injuries were reported in all age groups, very young children suffer more than their share. In 2005, older adults over the age of 65, did not get burned at a disproportionate rate as compared to their part of the total population; however their burns tended to be larger or more severe.

Twenty percent (20%) of all burn victims were children under the age of five. Seventy-four (74) children under age five were seriously burned in 2005. Twenty-seven (27), or 7% of the burn injuries, occurred to children aged five to nine; 26, or 7%, were youths aged 10 to 14. Fifty-eight (58), or 16% of the burn victims, were young adults aged 15 to 24. Thirty-seven (37), or 10% of the 2005 burn victims were adults aged 25 to 34. Fifty (50), or 14%, were people aged 35 to 44. Thirty-eight (38), or 10% of the burn injuries, occurred to adults aged 45 to 54; 29, or 8% of people who were reported to have incurred burns were between 55 and 64; 14, or 4% of all burn victims, were older adults in the 65 to 74 age group; nine, or 2% were in the 75 to 84 year old age group; and seven adults over the age of 85, or 2% of all reported burn victims in 2005, received burns of more than 5% of their body surface area.



Children Under 5 At Highest Risk of Burn Injuries

The above graph compares the percentage of burn injuries incurred by each age group with the percentage of that age group in the general population. Only 6% of the population in Massachusetts is under the age of five (source: 2000 U.S. Census data). We would expect

therefore that children under five would account for a maximum of 6% of the burn injuries. In fact, they accounted for 20% of the reported burn injuries in 2005, making them over three times more likely to suffer burn injuries. Children of this age group are the most dependent on others to protect them and are the least able to move out of harm's way unassisted.

The threat of burns is most severe for children less than two-years old. Forty (40) babies and toddlers under the age of two, accounted for 11% of all burn victims, but all children under the age of five accounted for 6% of the Massachusetts population.

While scalds remain the leading cause of burn injuries overall, for the first time, scalds are not the leading cause of burn injuries for the majority of age groups. Flame burn injuries were the leading cause for three age groups 10 to 14, 45 to 54 and older adults over 65. Scalds were the leading cause of burn injuries in the age groups children under five, children between the ages of five and nine, and adults between the ages of 25 and 34 and between 35 and 44. Burns from fires were the leading cause of burn injuries for young adults 15 to 24 and adults 55 to 64. Flame burns and burns from fire tied as the leading cause of burn injuries for adolescents 10-14.

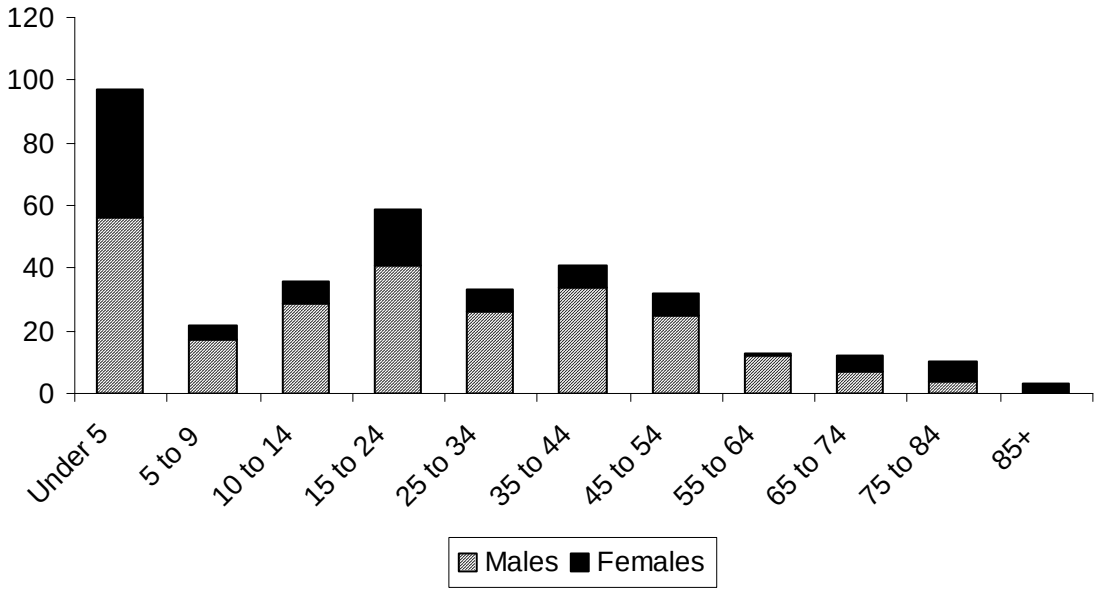
To learn more about the specific causes and prevention strategies for each age group, please look at the age specific sections within *Burn Injuries by Age Group*.

Causes of Burn Injuries by Age and Gender

The leading causes of burn injuries vary widely between age groups depending on the nature of activities in which people are involved. Children under five are busy exploring their environment and reaching for anything in their grasp. Thirty-one percent (31%) of the burns incurred by these young children were scalds caused by hot beverages and 22% were caused by scalds from hot tap water. Cooking liquids scalds, gasoline and other ignitable liquids were frequent causes of burn injuries to older teens and young adults.

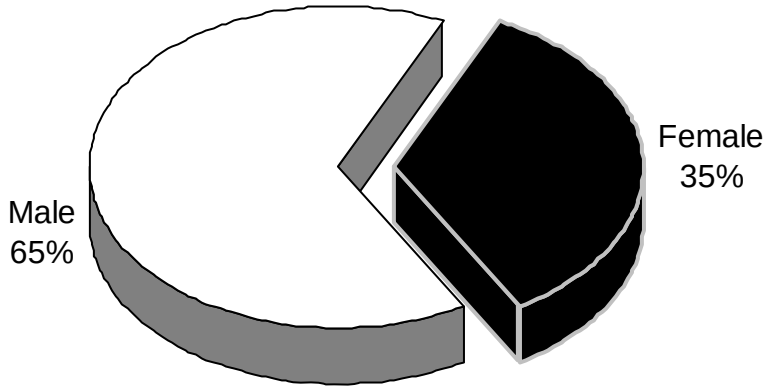
Parents of young children must be educated about the danger of scalds from hot beverages, cooking liquids and tap water. Teens and young adults need information about cooking safely, procedures to follow when a car overheats and the correct uses of gasoline. To be effective, burn prevention educators must develop strategies that address the risk faced by each age group.

Burn Victims by Age and Gender



Up until 85 years of age, males were burned more frequently than females. In 2005, 241, or 65%, of the 369 burn victims were male, and 128, or 35%, were female.

Burns by Gender



Children Under 5

1/5 of Reported Burns Incurred by Children Under 5
Seventy-four (74), or 20%, of the burn injuries reported to M-BIRS in 2005 were incurred by children under five years old. According to the 2000 U.S. Census, only 6% of Massachusetts residents are under the age of five. Children under five were three times as likely to be burned as were members of the general population. No other age group faced a risk this high. Fifty-one percent (51%) of burned pre-schoolers were male and 49% were female.

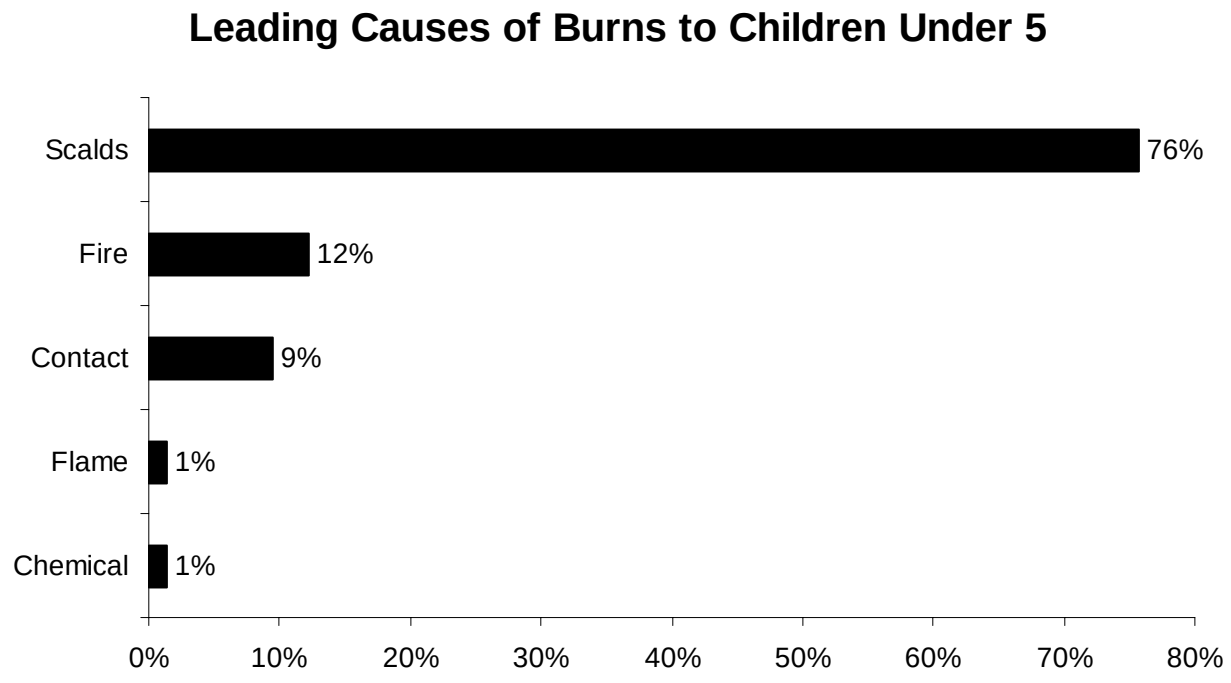
Scalds Caused Over 3/4 of Burns to Pre-Schoolers
Scalds caused 56, or 76%, of the burn injuries incurred by children under five. Twenty-three (23) were from hot beverages; 16 were from hot tap water; another 16 were from unspecified cooking acts, 10 from hot cooking liquids, six from hot food; and one scald burn was from steam.

Fires caused nine, or 12%, of the injuries to this age group. Six (6) children were burned in house fires; two children were burned in camp or bon fires; and one child was burned in a car fire.

Contact burns accounted for seven, or 9%, of the injuries to children under the age of five. Three children were burned by touching a hot curling iron. Contact with a hot machine, hot metal, an unspecified electrical incident and wax each caused one burn injury to this age group.

Flame burns caused one, or 1%, of burns to this age group. A child's clothing ignited when he was too close to a candle.

A chemical burn to one child also caused 1% of the burn injuries to children under five in 2005.



Children Ages 5 to 9

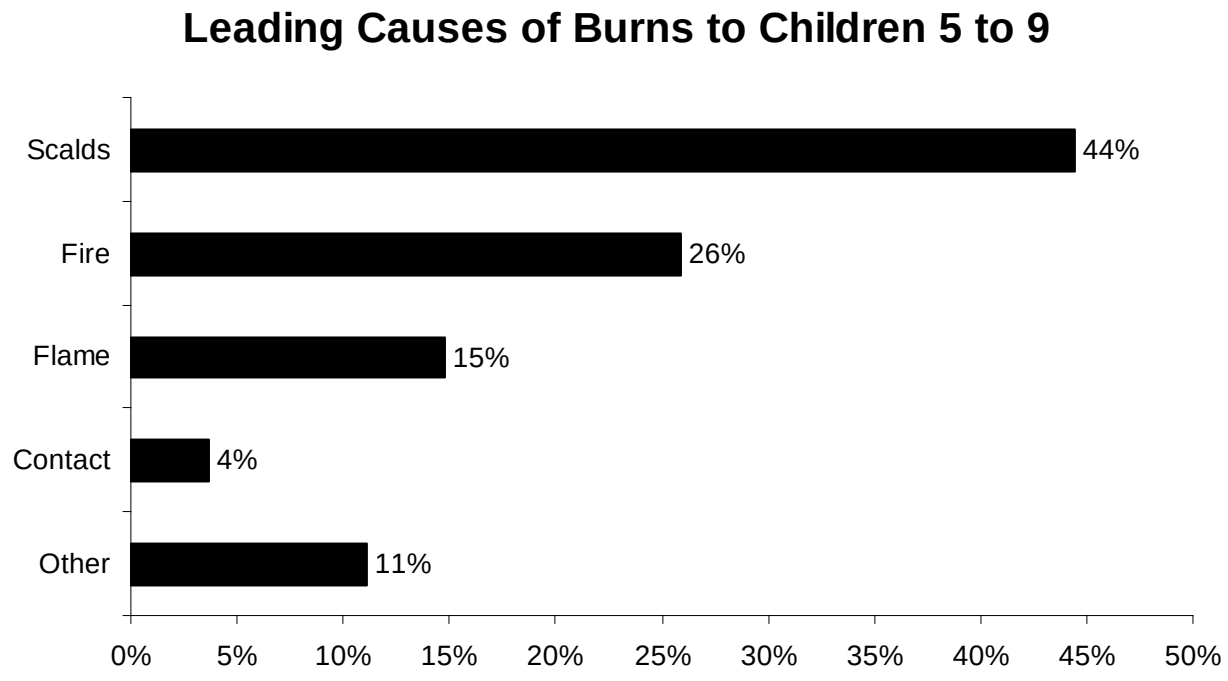
7% of Reported Burn Injuries Incurred by Children 5-9
Twenty-seven (27), or 7%, of the burn injuries reported in 2005 were incurred by children between five and nine years of age. Seventeen (17), or 63%, of the burn victims were male, and ten, or 37%, were female. Children in this age bracket accounted for 7% of the population of Massachusetts and 7% of the burn injuries in 2005.

Scald Burns Caused Over 44% of All Burns to Children 5-9
The leading causes of burn injuries to children aged five to nine were scalds, fires, flame burns, contact burns, and *Other* type burns

Scalds caused 12, or 44%, of the burn injuries incurred by children aged five to nine in 2005. The scald burn injuries included seven from cooking liquids, four from hot beverages, and one from an appliance (water vaporizer).

Fires accounted for seven burn injuries to this age group. Six house fires and an outside trash fire accounted for seven, or 26%, of the burn injuries to children between the ages of five and nine.

In 2004, flame burn injuries were the leading cause of burns to children between five and nine years old. In 2005, flame burns were not the leading cause but accounted for four, or 15%, of the burn injuries to this age group. Two (2) children were injured by flame burn injuries while playing with something dangerous. One (1) child in this age category suffered flame burn injuries from playing with gasoline; and one child was playing with matches. Ignitable liquids and a clothing ignition while cooking each caused one flame burn injury to this age group.



Contact with a hot car part caused one, or 4%, of these burns. Two chemical burns and one sunburn caused the three *Other* type burns to children five to nine. These three burns accounted for 11% of the burns to children aged five to nine.

Children Ages 10 to 14

7% of Reported Burns Incurred by Children 10-14
Children between the ages of 10 and 14 suffered 26, or 7%, of the burn injuries reported in 2005. Nineteen (19), or 73%, were male and seven, or 27%, were female. Children in this age bracket accounted for 7% of the population in the Commonwealth of Massachusetts and 7% of the total reported burn injuries. At this age, children are exploring their environment more on their own, but often without the maturity or experience to reason out cause and effect.

Flame Burns & Burns From Fire Were the Leading Cause of Burns to Children 10-14
Seven (7) pre-teens, or 27%, were injured by flame burn injuries. Three of these victims' injuries involved gasoline. Explosives caused two injuries; one child was injured trying to make a bomb, another was injured by fireworks. A child of this age group was also injured by a flame burn by a candle and another child by a flammable material.

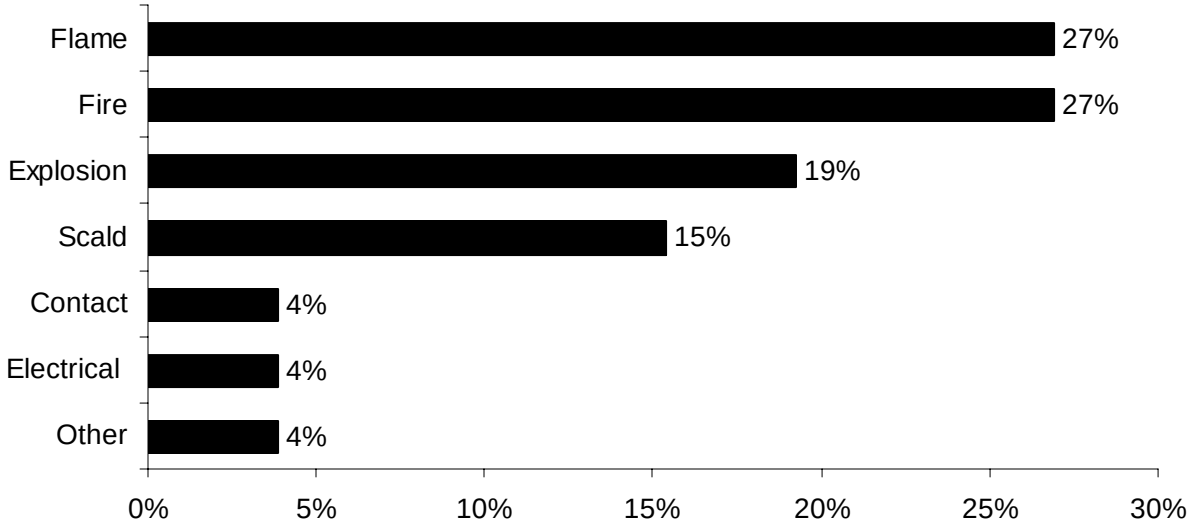
Another seven, or 27%, of the burn injuries to this age group were due to fires; four pre-teens were injured in camp or bon fires. Two children's clothing ignited from the bonfire; one was injured from an aerosol can in the bonfire and another child was injured from flammable materials in the fire. Three received burns from house fires, one of which involved gasoline and one involved another ignitable liquid.

Explosions caused five, or 19%, of the 26 burn injuries to children ages 10 to 14. Three (3) children were burned when the gasoline they were playing or working with exploded. One child in this age group was hurt when an aerosol can exploded. Another child was injured when a barbeque grill exploded and the other adolescent was injured in an electrical explosion.

Scalds represented four, or 15%, of the burns incurred by children aged 10 to 14. Two were scalded by hot beverages, one by hot food and one was scalded by cooking liquids.

Contact with a clothes iron accounted for one, or 4%, of the burn injuries to this age group. An electrical burn and a sunburn each also accounted for one, or 4%, of the burn injuries to this age group.

Leading Causes of Burns to Children Ages 10 to 14



Gasoline & Explosives Caused Over 1/3 of Pre-teen Burns
Overall ignitable liquids, including gasoline, and explosives were a factor in nine, or 35%, of the burn injuries to pre-teens; five flame burns, two explosions and two bonfires. Ignitable liquids were involved for seven, or 27%, of these injuries; and explosives were a factor in two, or 8%, of these injuries.

Ages 15 to 24

16% of Reported Burn Victims Between 15-24
Teens and young adults between the ages of 15 and 24 incurred 58, or 16%, of the burn injuries reported in 2005. Forty-one (41), or 71%, were male and seventeen, or 29%, were female. Young adults aged 15 to 24 account for 13% of the population of Massachusetts and 16% of the burn injuries in 2005. Sixteen (16), or 28%, of the burn injuries incurred by this age group were work-related, 13 were male and three were female.

1/3 of Burns Were From Fires
Burns from fire were once again the leading cause of burn injuries to this age group. In 2004 they had dropped to the third leading cause. Thirty-three percent (33%), or 19, of the burn injuries incurred by people aged 15 to 24 were from fires. Eleven (11) victims received burns from camp or bonfires, five from motor vehicle fires, two from house fires, and one young adult received a burn from a brush fire.

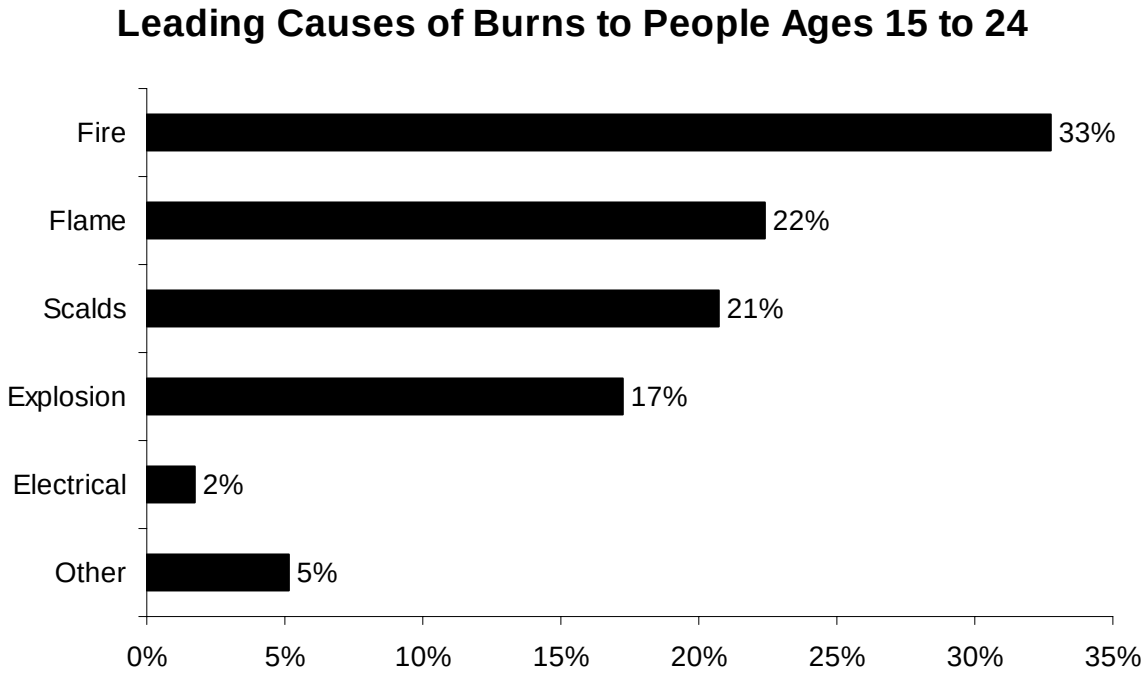
Thirteen (13), or 22%, of the burn injuries to this age group were caused by flames. Gasoline caused six burn injuries; two of these six were teenagers playing with the gasoline. Cutting and welding torches caused two burn injuries to this age group; one from a cutting torch, the other from a welding torch. Burns from alcohol, a heater, lighter, fireworks, and an unsuccessful attempt at self-immolation each accounted for one injury.

Twelve (12), or 21%, of the burn injuries to people 15 to 24 years of age were caused by scalds. Five (5) were caused by cooking liquids. The other seven were caused by three hot beverages, two from hot tap water scalds, one from a car radiator scald, and one from an assault.

Explosions injured 10, or 17%, of people in this age category. Explosions involving aerosol cans, propane and electricity each caused two burn injuries in this age group. Fireworks, flammable materials, gasoline and a stove each caused one explosion burn injury.

There was one burn injury caused by an electrocution, accounting for 2% of the burn injuries to people between the ages of 15 and 24.

There were three (5%) *Other* type burns to members of this age group. Two young adults received their injuries through sunburns and one of the victims between the ages of 15 and 24 received his burn injuries from a chemical.



Ages 25 to 34

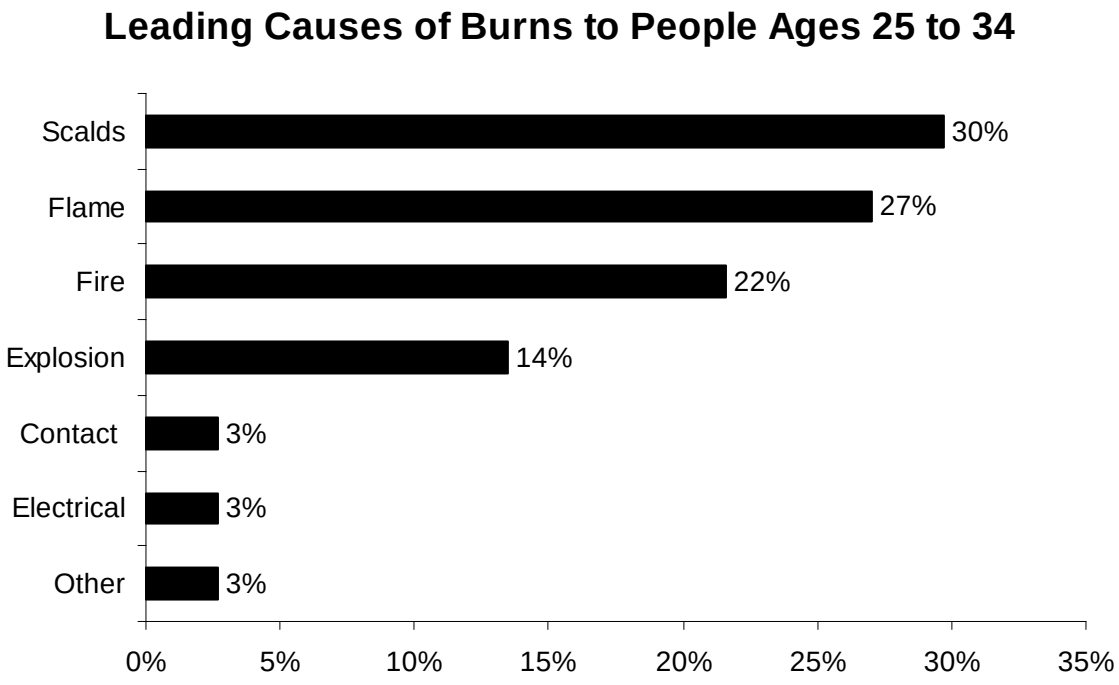
10% of Burn Victims Were Between 25 and 34
Thirty-seven (37), or 10%, of the burn injuries reported in 2005 were incurred by people between 25 and 34 years of age. Twenty-five (25), or 68%, of the victims were male and 12, or 32% were female. Ten (10), or 27%, of the burn injuries suffered by this age group were work-related; eight were men and one was a woman. People between the ages of 25 and 34 accounted for 15% of the population of Massachusetts while accounting for 10% of the total number of burn injuries reported in 2005.

Almost 1/3 of Burn Injuries Were Scald Burns
Scalds accounted for the most burns in this age group, accounting for 11 burns, or 30%. Eight of the scalds were from cooking liquids, two were from hot food and one was from a hot beverage.

Flame burns caused 10, or 27%, of the injuries to 25-34 year olds. Cooking caused four of these injuries; one each from a barbeque, cooking liquids, a gas stove and an unspecified cooking activity. Alcohol, a cigarette, a flashburn, gasoline, propane, and an unsuccessful attempt at self-immolation each caused one burn injury to someone in this age group.

Burns from fires were the third leading cause of burns to people between the ages of 25 and 34. Eight (8) burns from fires accounted for 22% of the burn injuries to this age group. These fire-related burns included three victims of camp or bonfires, three victims of motor vehicle fires and two victims of house fires.

Five (5), or 14%, of the burns to 25 to 34 year olds were caused by explosions. A boat, electricity, fireworks, gasoline, and smoking were each involved in one explosion.



Contact with a heater accounted for one, or 3% of the burns to this age group. An unspecified electrical burn and a sunburn each caused, a single burn injury, or 3% of burns to people between the ages of 35 and 44.

Ages 35 to 44

14% of Reported Burn Victims Were Between 35 and 44 Years of Age
Fifty (50), or 14%, of the burn injuries reported in 2005 occurred to people between the ages of 35 and 44. Thirty-nine (39), or 78%, of the victims were men and 11, or 22%, of the victims were women. Adults between the ages of 35 and 44 accounted for 17% of the Massachusetts population but only 14% of the reported burns in 2005.

Over 1/4 of Burn Injuries Were Work-Related
Thirteen (13), or 26%, of the burn injuries incurred by this age group were work-related. Eleven (11) of these work-related burn victims were men, two were women.

Over 1/4 of Burn Injuries Were Scalds
In 2005 scalds were the leading cause of burns to people between 35 and 44 years of age, accounting for 14, or 28%, of burn injuries to this age group. In 2004, scalds were the fourth leading cause of burn injuries to this age group. Five of these injuries were cooking related including four scalds from cooking liquids and one from an unspecified cooking act. Car radiators and steam were each responsible for three of the scalds. Hot beverages, hot tap water and wax each accounted for one of these injuries.

Burn injuries from fires caused 13, or 26%, of the burn injuries to adults between the ages of 35 and 44. Five were from house fires, three were from camp or bonfires, two were from motor vehicle fires, one was from a structure arson, another was from a brush fire, and one was from an unspecified flashburn.

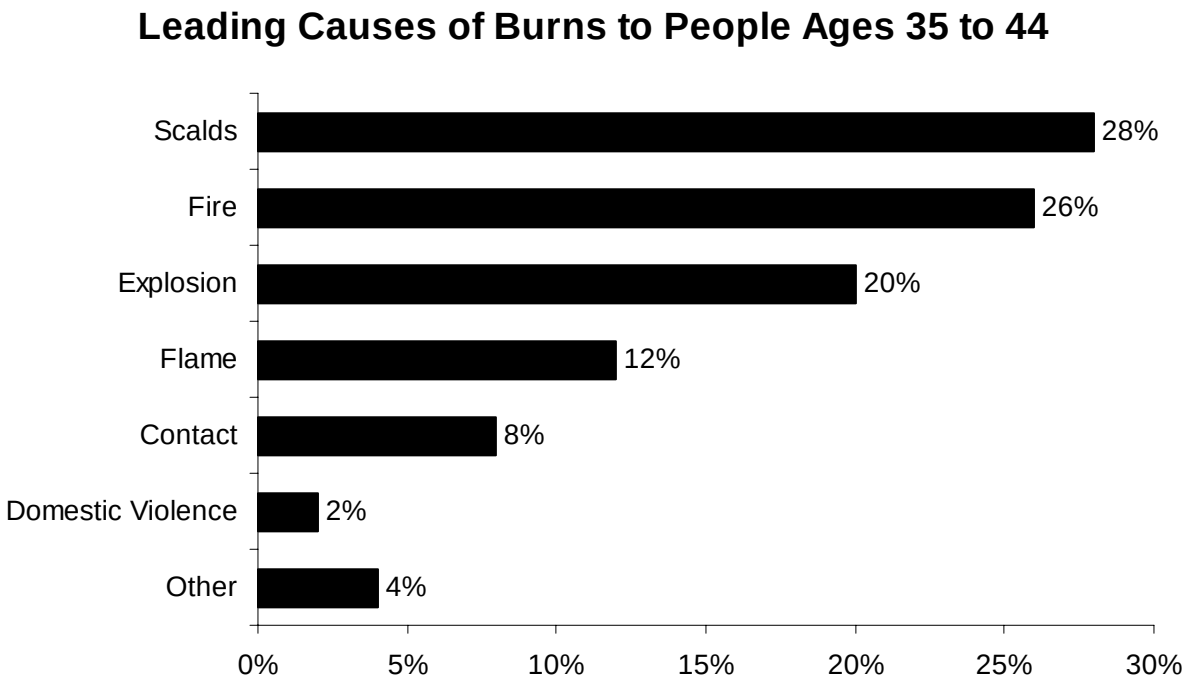
Explosions accounted for 10, or 20%, of the total burn injuries to this age group. Three (3) of these explosions involved gasoline. Two (2) of these 10 explosions were caused by explosives; one involved fireworks, the other unspecified explosives. The other five explosions were caused by an aerosol can, a boat, electricity, a motor vehicle accident and propane.

Flame burns caused six, or 12%, of burn injuries to adults between the ages of 35 and 44. Alcohol, an assault, a clothing ignition, drugs, gasoline, and an unsuccessful attempt at self-immolation each caused one flame burn injury in this age group.

Contact burns accounted for four, or 8% of the burns to this group. Asphalt, an oven, a hot piece of metal and a hot machine were each the cause of one of these burns.

An act of domestic violence caused 2% of the burns to this age group.

Other burns accounted for two, or 4% of the injuries to people between the ages of 35 to 44. One was a chemical burn and the other was a sunburn.



Ages 45 to 54

10% of Reported Burn Injuries Were Between 45 and 54 Years of Age
People between the ages of 45 and 54 incurred 38, or 10%, of the reported burns in 2005. Twenty-four (24) or 63%, of the victims were male, and 14, or 37%, were female. Ten (10) of the 38 burn victims aged 45 to 54, or 34%, were burned while at work. This age group represents 14% of the population of Massachusetts while it only received 10% of the burn injuries in 2005.

Flame Burns Cause Almost 1/3 of the Burn Injuries
Flame burns were incurred by 12, or 32%, of the burn victims between the ages of 45 and 54. Cooking caused six of these flame burn injuries; two were clothing ignitions while cooking; one was from a barbeque; one was from cooking liquids; one was from a stove and the other was an unspecified cooking act. Unspecified clothing ignitions caused two of these flame burn injuries. Gasoline, propane, a woodstove, and welding were each responsible for one flame burn injury to this age group.

Scalds caused 10, or 26% of the burn injuries to this age group. Cooking activities were responsible for seven of these burns; five involved cooking liquids, one involved hot food and

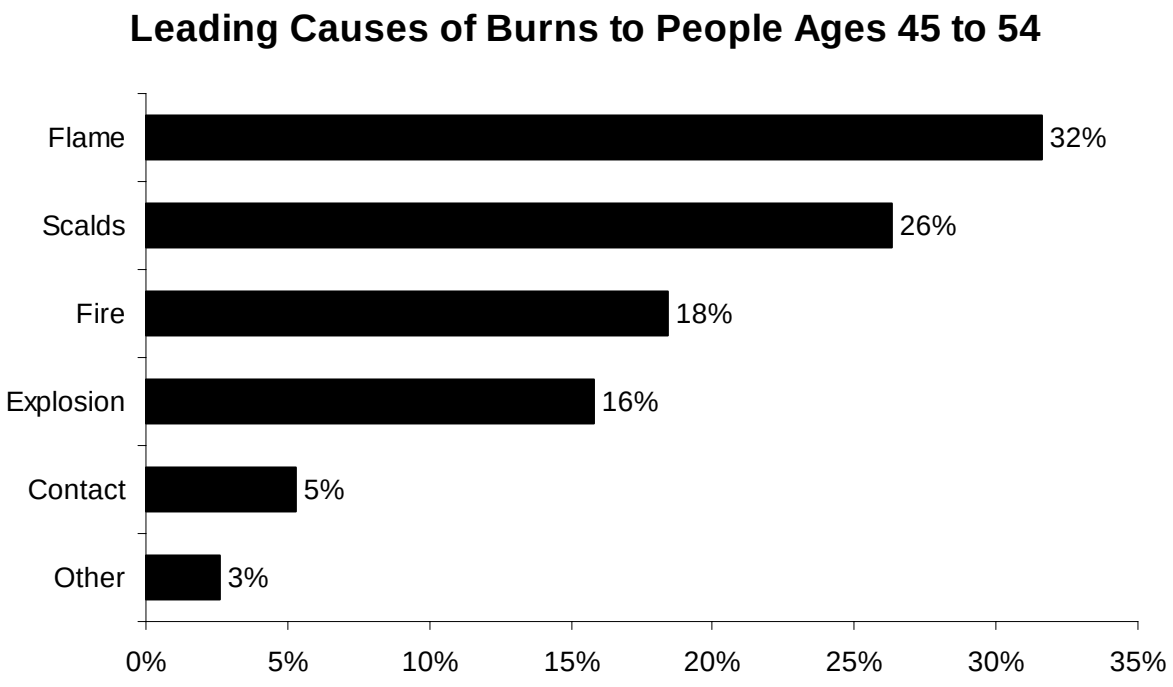
the other involved an unspecified cooking incident. A hot beverage, a car radiator and steam each caused one of these burns.

Burns from fires caused seven, or 18%, of the burn injuries to victims 45 to 54 years old. Five (5) house fires, one brush fire and one unspecified fire accounted for all seven of the burn injuries to this age group.

Six (6) members of this age group were victims of explosions. They accounted for 16% of the burn injuries to this age group. Electricity caused two of these explosion burn injuries. Heating equipment caused two of these injuries; a boiler and a heater were involved. Ignitable gases also caused two of these injuries; propane was involved in one and natural gas in the other explosion.

Contact burns caused two, or 5%, of the burns to victims between the ages of 45 to 54. Asphalt and an unspecified cooking activity each caused one of these contact burns.

A chemical burn caused one, or 3%, of the burn injuries to people in the age group 45 to 54 in 2005.



Ages 55 to 64

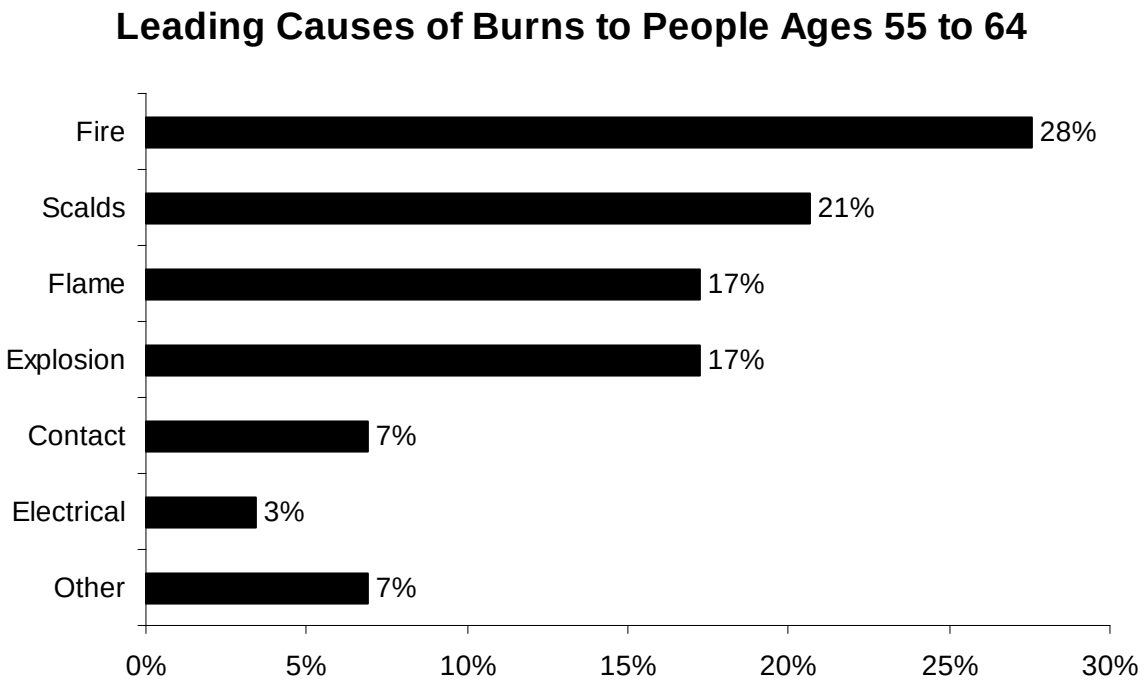
8% of Burn Victims Were Between 55 and 64 Years Old
Twenty-nine (29), or 8%, of the burns reported in 2005 were incurred by people between the ages of 55 and 64. Twenty-nine (29), or 72%, of the victims were male, and eight, or 28% were female. Three (3), or 10%, of the 13 burn injuries incurred by people between 55 and 64 years old were reported to be work-related, and all of these victims were male. People of this age group represent 9% of the total population of Massachusetts but only received 8% of the burns in 2005.

Over 1/4 of Burn Injuries Were From Fires
Burns from fires were the leading cause of burn injuries to adults between the ages of 55 and 64 years of age in 2005. Fires caused eight burn injuries, or 28% of all burn injuries to this age group. Three (3) house fires, two motor vehicle fires, one brush fire, one camp fire and one unspecified fire accounted for these injuries.

Scalds were the second leading cause of burn injuries to this age group. Six (6), or 21%, of the burn injuries incurred by people between the ages of 55 and 64 were scalds. These scald burns included five from cooking liquids, and one from hot tap water.

Flame burns accounted for five (5), or 17%, of the injuries to this age group. Clothing ignitions while cooking and smoking in bed each caused two of these injuries. A flame burn from a candle caused the other flame burn injury to someone in this age group.

Another five victims, or 17%, belonging to this age group received their burn injuries through explosions. Gasoline was involved in two of these injuries. A car part, electricity and propane



each accounted for one of these injuries.

Contact with hot objects caused two injuries, or 7%, of the total burn injuries to this age group. A heating pad and a wood stove caused the two contact burn injuries.

An unspecified electrical burn caused one, or 3%, of these injuries.

In 2005 two chemical burns caused 7% of the injuries to older adults between the ages of 55 and 64.

Over 65

30 Burn Victims Over 65
Thirty (30), or 8%, of the burn victims in 2005 were over 65 years old. Fourteen (14) were between 65 and 74; nine were between 75 and 84; and seven were over 85 years old. Seventeen (17), or 57% of the victims were male, and 13, or 43%, were female. Older adults represent 14% of the total Massachusetts population but only 8% of the burn injuries in 2005.

Flame Burns Are a Leading Cause of Burns to Older Adults
Nine (9), or 30%, of the burn injuries to people over the age of 65 can be attributed to flame burns. Six of the burn injuries were attributed to clothing ignitions while cooking; and one each from smoking in bed, gasoline and flammable materials.

All of the six cooking-related flame burns, were from clothing ignitions while cooking

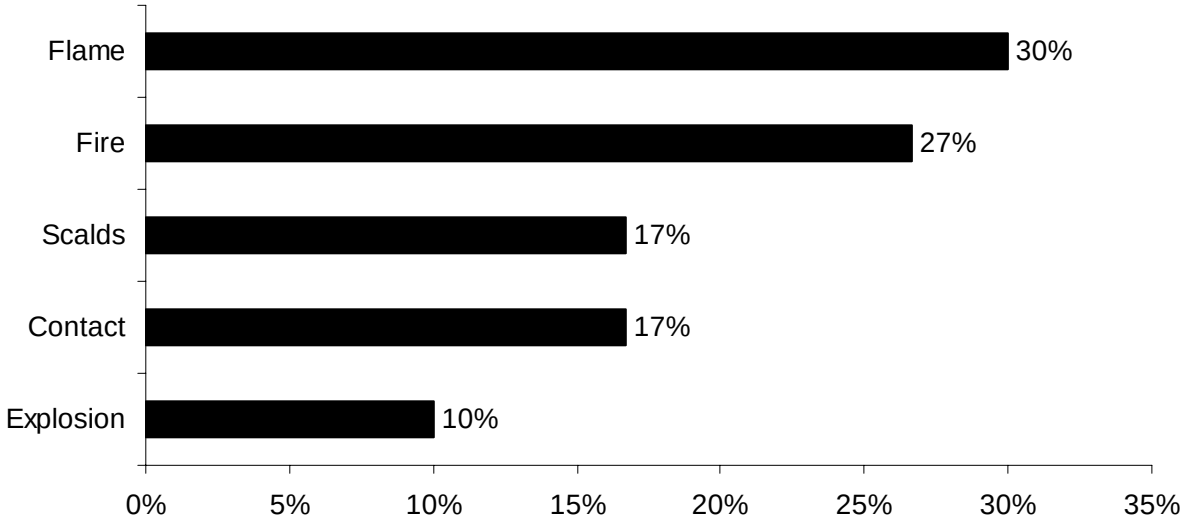
Burns From Fires Also a Leading Cause of Burns to Older Adults
Burns from fires caused eight, or 27%, of burn injuries to adults over the age of 65. Six house fires, one structure fire and one motor vehicle fire accounted for all eight of the fire-related burn injuries. Three of the victims died in the house fires. Smoking in bed caused two of the fatalities and an electrical problem caused the other death.

Five, or 17%, of the burns were caused by scalds. Three (3) were from cooking liquids, one was from an unspecified cooking act and another burn injury was from hot tap water.

Another five of the victims over the age of 65 received contact burns resulting in 17% of the burns to this age group. Contact with a radiator caused two of these injuries. Contact with a car part, a hot piece of metal and a stove each caused one of the burn injuries to this age group.

Two unspecified explosions and a propane explosion caused three of the burn injuries to this age group. These three burns injuries accounted for 10% of the total burn injuries to older adults.

Leading Causes of Burns to Older Adults (65+)



According to the Burn Awareness Coalition, smoking when tired, drinking alcohol or taking medications which can cause drowsiness, wearing loose fitting clothing while cooking, kitchen fires from unattended cooking, and grease fires on the stove top are leading causes of burn injuries to older adults. During 2005, cooking accounted for six, or 37% of the reported burn injuries in Massachusetts incurred by older adults. Clothing ignitions caused 23% and smoking accounted for 17% of the burn injuries to older adults.

Clothing Ignitions Cause 23% of Burns to Older Adults
Clothing ignitions to older adults has consistently been an issue, but this trend is on a decline. During 2005, only seven (7), or 23%, of the burn injuries to those victims over the age of 65 were due to clothing ignitions. These types of injuries accounted for 2% of the total 369 burn injuries reported in Massachusetts in 2005.

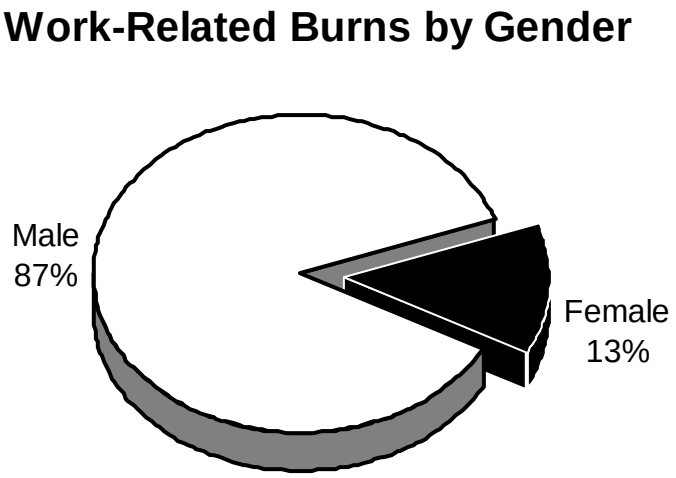
Safety Tips

- Do not smoke when you are tired, drinking alcohol or taking medications, which make you drowsy. If you must smoke, make sure there are working smoke detectors in the immediate vicinity.
- Wear clothes with tight fitting sleeves and watch for clothes touching elements on the stove.
- Do not use a cooking stove for heating purposes or for drying clothes.
- Never leave food that is cooking unattended. Set a kitchen timer to remind you to turn off the burners and/or the oven. If you must leave the kitchen, take a wooden spoon or potholder as a reminder that you have left something unattended on the stove.
- Keep stove surfaces clean of built up grease.
- Do not attempt to lift or carry heavy pots of hot liquid or food.

- Cook with the pot and pan handles turned in.
- Remember “Stop, Drop, & Roll” – It just may save your life.

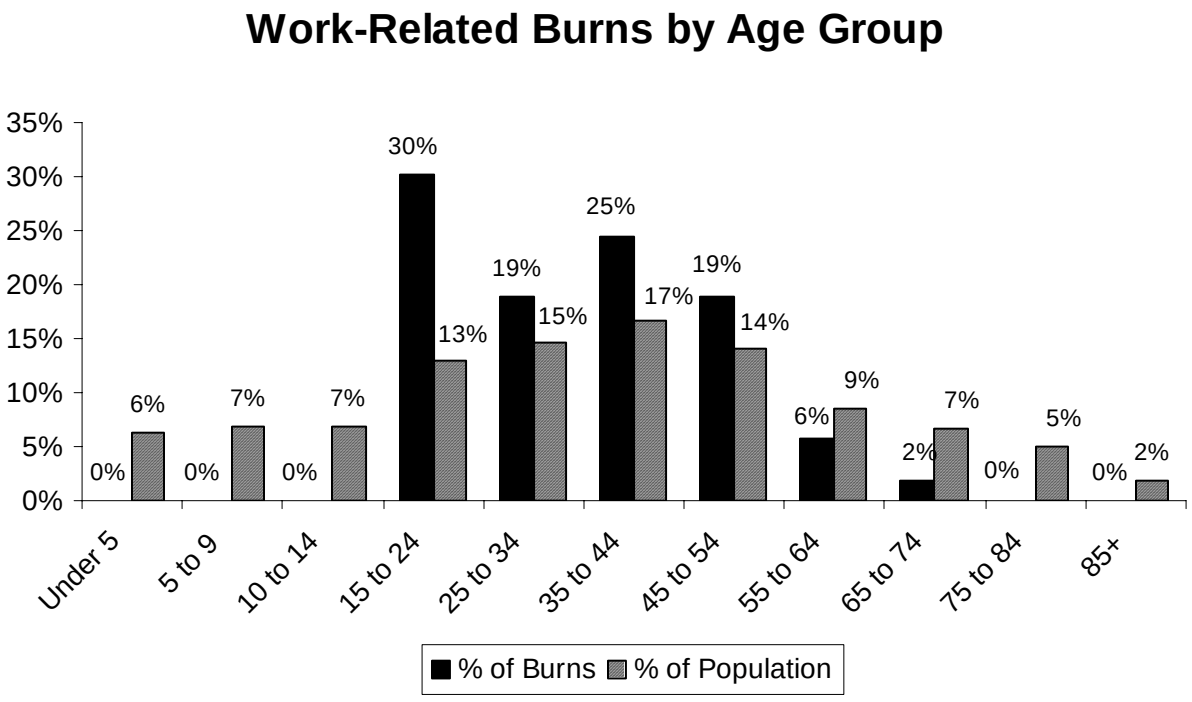
Work-Related Burn Injuries

14% of Reported Burns Occurred at Work
Massachusetts hospitals indicated that 53, or 14%, of the 369 burn injuries reported in 2005 occurred while the victim was at work. Men were much more likely to be burned while working than women. Forty-six (46) men, 87%, and seven women, 13%, were burned at work in 2005. Twenty-two percent (22%) of work-related burns that occurred in Massachusetts were severe or life-threatening.



1/3 Occurred in Eating and Drinking Establishments or Were Cooking-Related
According to the Massachusetts Department of Public Health’s Occupational Health Surveillance Program, 10 of the 41 reported work-related burns that occurred in Massachusetts, occurred in eating and drinking establishments, and another four occurred while individuals were cooking in other establishments such as hospitals, nursing homes, or hotels. Hot cooking oil was the most common cause of these burns. Two individuals were burned by oil from fryolaters and another four incidents also involved hot oil. Other substances causing burns related to restaurant or food preparation included hot coffee and soup. Three of the cooking-related burns occurred to individuals under 21.

92% of Work-Related Burns Incurred by People Between 15 and 54
No one under the age of 16 received a work-related burn in 2005. Sixteen (16), or 30%, were between 15 and 24 years of age. Ten (10), or 19%, of the victims were between 25 and 34 years of age; 13, or 25%, belonged to the 35 to 44 age group. Ten (10), or 19%, of work-related burn injuries were victims 45 to 54 years old. Three (3), or 6% of work-related burns occurred in the 55 to 64 age group. The oldest age group to have a work-related burn injury was the 65 to 74 group and they experienced one, or 2% of the burn injuries in the workplace. The youngest person to receive a work-related burn in Massachusetts in 2005 was a 16-year old girl who received a scald burn injury from a hot beverage. The oldest victim to receive a work-related burn was a 65-year old man working at a gas station who received his burns from a garage fire started by gasoline.

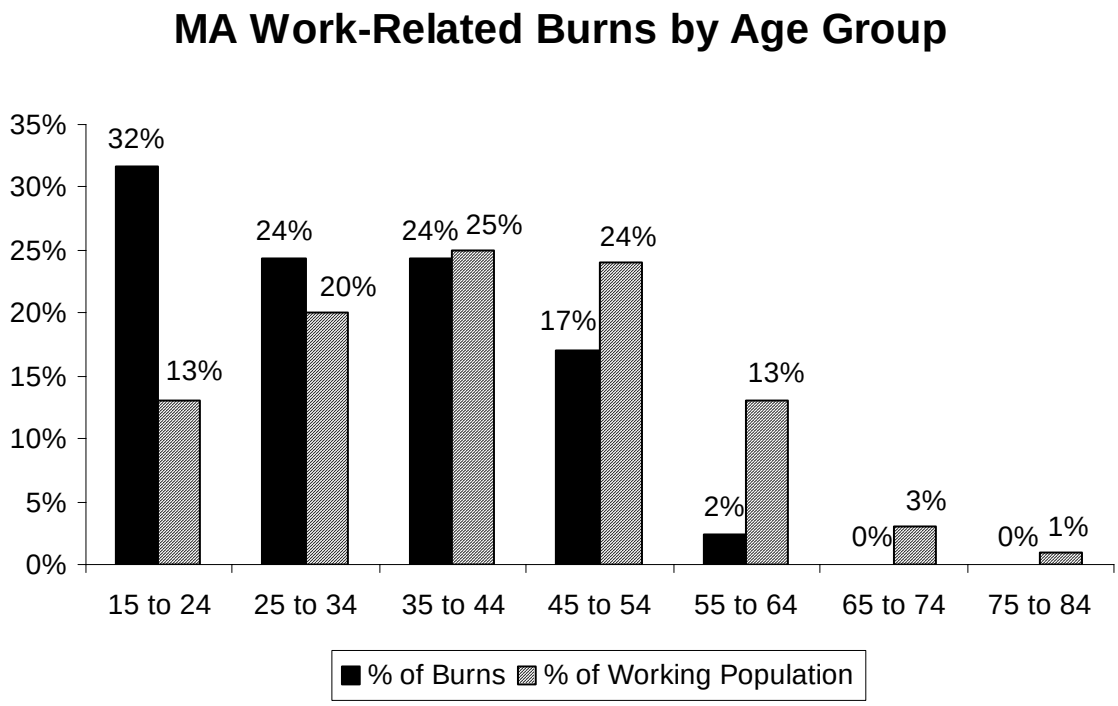


MA Young Adults 15-24 Suffer Work-Related Burns More Than Any Other Age Group
Children under 14 are not allowed to legally work in Massachusetts; and older adults over the age of 85 usually choose not to or are unable to work. Because of this it was determined to compare the percentage of work-related burns by age group to that age group's percentage of the total Massachusetts work force.

Young adults make up only 13% of the working population in Massachusetts[5] yet they sustained 32% of the work-related burns that occurred in Massachusetts in 2005. The youngest worker injured in Massachusetts in 2005 was a 16 year-old girl who was burned while preparing coffee. Thirteen (13), or 32% of work-related burns occurred in young adults less than 25 years of age. Ten (10), or 24%, of the victims were between 25 and 34 years of age; and an equal number

[5] Population estimates were taken from the Ferret Census System.

belonged to the 35 to 44 age group. Seven (7), or 17%, of work-related burn injuries were victims 45 to 54 years old. One (1) of the work-related burns occurred in the 55 to 64 age group. No work-related burns were reported in the oldest age group (65 to 74 years of age).



38% of Work-Related Burns Were Scalds

Scalds were the leading cause of work-related burns in 2005. These 20 burn injuries accounted for 38% of work-related burns. Ten (10) involved cooking; eight of these burns were the result of cooking liquids; and two were from food. Hot beverages and steam were each the cause of three of the work-related burns. Hot tap water, was responsible for two of these burns. An assault and a car radiator were each responsible for one of the work-related burns in 2005.

Fifteen (15), or 28%, of the 53 work-related burns were from explosions in 2005. Six (6) of the work-related explosions involved electricity. Five of these work-related explosions involved ignitable gases; four involved propane and the other involved natural gas. An aerosol can, gasoline, a heater and a motor vehicle accident each caused one work-related explosion in 2005.

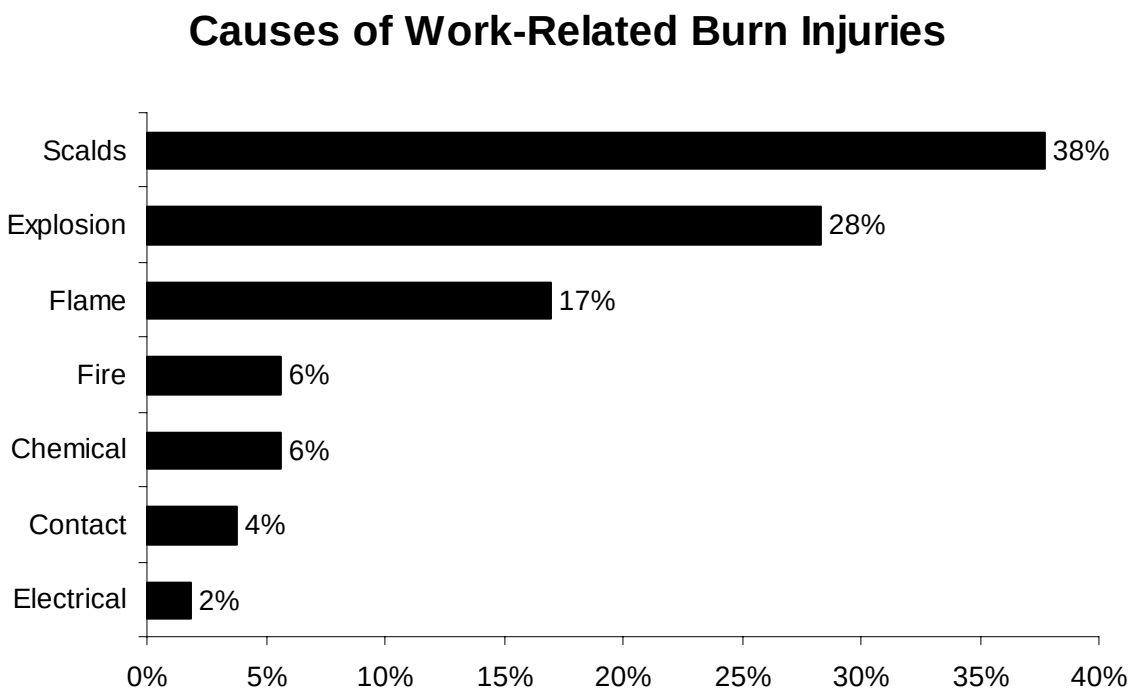
Flame burns accounted for nine, or 17%, of these work-related burns. Gasoline and welding or cutting torches each caused two of the work-related flame burn injuries. Filling a cooking stove with gas, a flashburn, a heater, a clothing ignition and propane each caused one work-related flame burn injury in 2005.

Three (3), or 6%, of the work-related burn injuries were from fires. Gasoline caused one structure fire; smoking caused one house fire; and the other burn injury was caused by a boat fire.

Three (3), or 6%, of work-related burn injuries in 2005 were chemical burns.

Two (2), or 4%, of the work-related burn injuries in 2005 were from contact with hot objects. Coming into contact with a hot machine, and an unspecified cooking act were each responsible for one of these injuries.

An unspecified electrical burn caused one, or 1%, of the work-related burn injuries in 2005.



Work-Related Injuries Resulted in 1 Death[6] and 5 Life-threatening Injuries

- On August 20, 2005, a 51-year old North Berwick, Maine man and his 24-year old son were seriously injured while working. They were applying some flammable waterproofing material in the basement of a Plum Island home. The vapors given off by the waterproofing material came into contact with the pilot light of the nearby propane-fueled boiler igniting the vapors in an explosion. The 51-year old father received burns to 70% of his body and later died in the hospital. His 24-year old son also received burns to 70% of his body but he has survived his injuries.

[6] Four additional deaths were associated with fires in 2005, in which the victim died at the scene, and was therefore not reported by a hospital to M-BIRS. These included a 22-year-old man killed in a boat fire off the Scituate coast, a 43-year-old wood floor finisher killed in a house fire caused by a flammable floor sealant, an electrician electrocuted when a 480 volt electrical box was not de-energized prior to repair, and a 31 year-old saw mill employee.

- On October 15, 2005, a 20-year old man and his 18-year old assistant were cleaning an electrical transformer when there was an electrical explosion. The explosion threw the victims from their work positions. The 18-year old worker received life-threatening burns to approximately 70% of his body. The 20-year old man received burns to 6% of his body surface area and also suffered other life-threatening injuries.

- On March 16, 2005, a 38-year old Gloucester man was working on his own residential rental property. Smoking material ignited a mattress. The victim received life-threatening burns to his face and hands as he removed the mattress from the apartment building.

- On July 26, 2005 a 54-year old Salem, NH man was working on a pool heater in Haverhill, MA, when the heater exploded. The victim received life-threatening burns to approximately 50% of his body surface area.

Intervention and Prevention Efforts

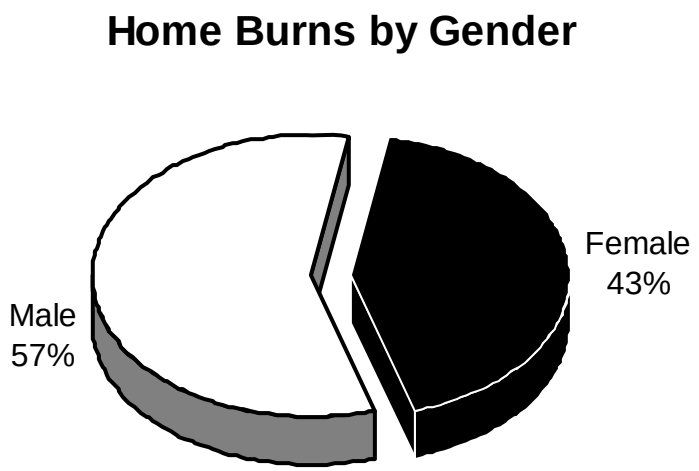
For the past three years the Department of Fire Services has collaborated with the Massachusetts Department of Public Health to ensure that information regarding burn injuries occurring at work is used for intervention and prevention. As part of this effort, burn injuries that were caused by explosions, chemical exposures, electrocutions, or that appeared to indicate likely violations of OSHA standards were referred to the appropriate Massachusetts OSHA area offices for investigation. OSHA has agreed to conduct on-site investigations in response to these referrals and report back to the Department of Public Health. Eleven burn injuries were referred to OSHA in 2005 for cases that met these criteria. In five of the cases, OSHA was already conducting investigations, including two explosions; two additional cases had occurred in neighboring states (Connecticut and New Hampshire). OSHA had not been notified by any other source about four of the cases.

In addition to referrals for enforcement, the Department of Public Health's Occupational Health Surveillance Program participates in community efforts to reduce burn injuries. In the past these efforts have included working with a retail bakery to encourage the redesigning of a coffee brew basket to reduce the risk of coffee slurry burns and the development of a poster about first aid for burn injuries in restaurants. The Occupational Health Surveillance Program and the Department of Fire Services have been working with representatives of the floor finishing industry, labor unions, scientists, health care providers, environmental and community groups to develop methods to improve the safety of floor finishing. The two agencies have collaborated on a fire safety alert on the hazards of floor finishing. This alert, which will be distributed to floor finishing contractors throughout the state, recommends use of nonflammable products (flash points less than 100^{o}F) for indoor application. A Massachusetts Floor Finishing Safety Task Force has also issued a report[7] and is working with the industry to explore replacing flammable floor sealants with safer products and developing a certification procedure for floor finishing companies that will enhance safety of the workers and fire prevention for homeowners.

[7] Protecting Workers and Homeowners from Wood Floor-Finishing Hazards in Massachusetts, September 29, 2005, available on MassCOSH website, http://www.masscosh.org/

Burn Injuries in the Home

Almost 2/3 of Burn Injuries Occur in the Home
The home is the most common place for burn injuries to occur. In 2005, 240 people, almost two-thirds (65%), of all the reported burn injuries took place in the victim's home or surrounding yard. Men were more likely to be burned at home than women. One hundred and thirty-eight (138) men, 57%, and 102 women, 43%, were burned in their homes in 2005.



40% of All Home Burns Are Scalds
Ninety-six (96), or 40%, of the burn injuries that occurred in the home in 2005 were scalds. Cooking caused 46, or 19%; cooking liquids caused 35, hot food caused eight and unspecified cooking acts caused three. Scalds from hot beverages accounted for 27, or 11%, of these burns. Hot tap water caused 17, or 7% of burns at home. Steam and car radiators each accounted for two, or 1% of these burns; and an appliance and wax each accounted for one, or less than 1%, of the home burn injuries in 2005.

Burns From Fires Account for Almost 1/4 of All Burns at Home
Burn injuries from fires accounted for 52, or 22% of all home burn injuries. Thirty-five (35) house fires accounted for 15% of all home burn injuries. Many of these fires were caused by smoking, electrical problems, ignitable liquids and candles. There were seven (3%) reported camp or bon fires in the victim's yards that resulted in burn injuries. Four of these fires (57%) involved gasoline. Three (3) brush fires accounted for 1% of all home burn injuries. One of these brush fires in people's back yards involved gasoline. Two (2) motor vehicle fires, accounted for 1% of the home burn injuries; one of these was a self-immolation. There was also a structure fire accounting for less than 1% of these fires; it was considered an arson. There were four unspecified fires, accounting for 2% of all home fires.

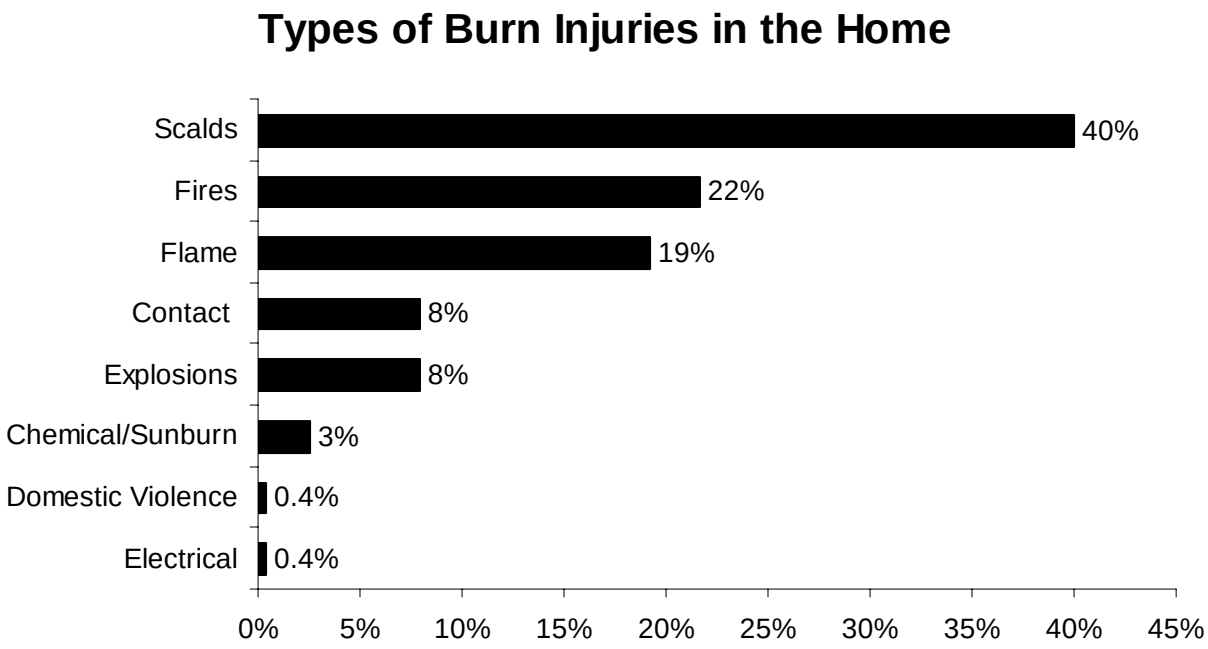
Flame burns accounted for 46, or 19%, of all home-related burn injuries. Cooking activities accounted for 18, or 8%, of home burn injuries; clothing ignitions while cooking caused 11, barbeques caused two and cooking liquids caused another two injuries, two stoves (one being gas) and an unspecified cooking incident each caused one injury. Children playing with dangerous items accounted for five, or 2%, of these burn injuries; children with gasoline caused four and children playing with matches caused one of these burns. Ignitable liquids were responsible for four, or 2%; gasoline caused three and unspecified ignitable liquids were responsible for one of these injuries. Smoking caused four of these injuries, or 2%; three were caused by smoking in bed, and one was caused by a cigarette lighter. Candles were responsible for two, or 1%, of these fires; one of these candle flame burns was a clothing ignition. Alcohol, flammable materials, propane, and unspecified clothing ignitions each caused two home-related flame burn injuries, accounting for 1% of all home burn injuries. Drugs, fireworks and a woodstove were all responsible for one, or less than 1%, of the home burn injuries in 2005.

Contact burn injuries accounted for 19, or 8%, of all the burn injuries that occurred in homes in 2005. Contact with heating equipment was the leading reason for contact burn injuries, causing four, or 2%, of all the at-home burn injuries in 2005. Contact with radiators caused two burns and contact with a woodstove and a heater each caused one burn injury. Hot curling-irons caused three, or 1% of these burns. Contact with hot metal and car parts each caused two, or 1%, of these injuries. Cooking activities also caused two, or 1%, of these injuries; an oven and a stove each accounted for one of these injuries. A clothes iron, asphalt, a heating pad, a machine, wax, and an unspecified electrical accident each caused one, or less than 1%, of the reported contact burn injuries that occurred in homes in 2005.

Explosions also caused 19, or 8%, of all reported home burn injuries in 2005. Gasoline caused six, or 3% of these injuries; one of the gasoline injuries occurred to a child. Aerosol cans were the cause of three, or 1%, of these fires. Propane caused two, or 1%. Explosives, one incident with fireworks and one with unspecified explosives, also caused two, or 1%, of these injuries. Cooking also was the cause for two, or 1%, of all home burns; one was from a barbeque and another was from a stove. A boiler, a car part, electricity, and an unspecified smoking act were each involved in one, or less than 1%, of the 2005 home burn injuries from explosions.

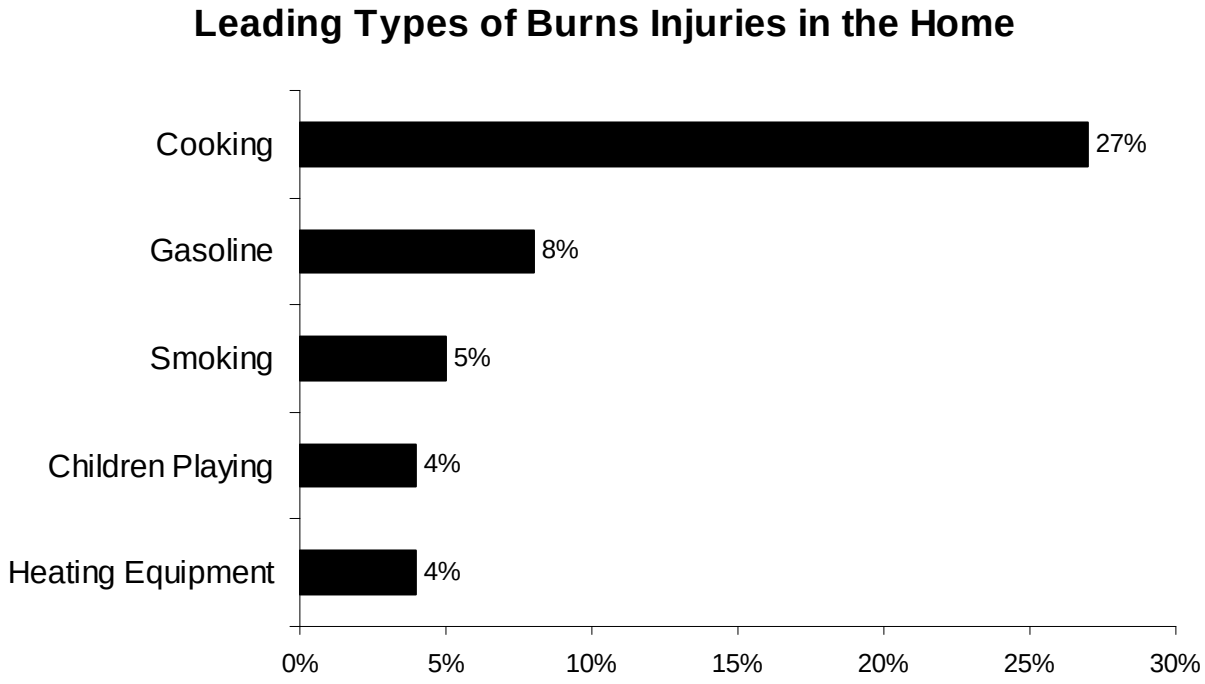
Six (6) *Other* type of home burn injuries were reported in 2005. These six injuries accounted for 3% of the home burn injuries. Four (4) were chemical burns and two were sunburns.

One unspecified electrical incident and one act of domestic violence involving smoking each caused less than 1% of the home-related burn injuries in 2005.



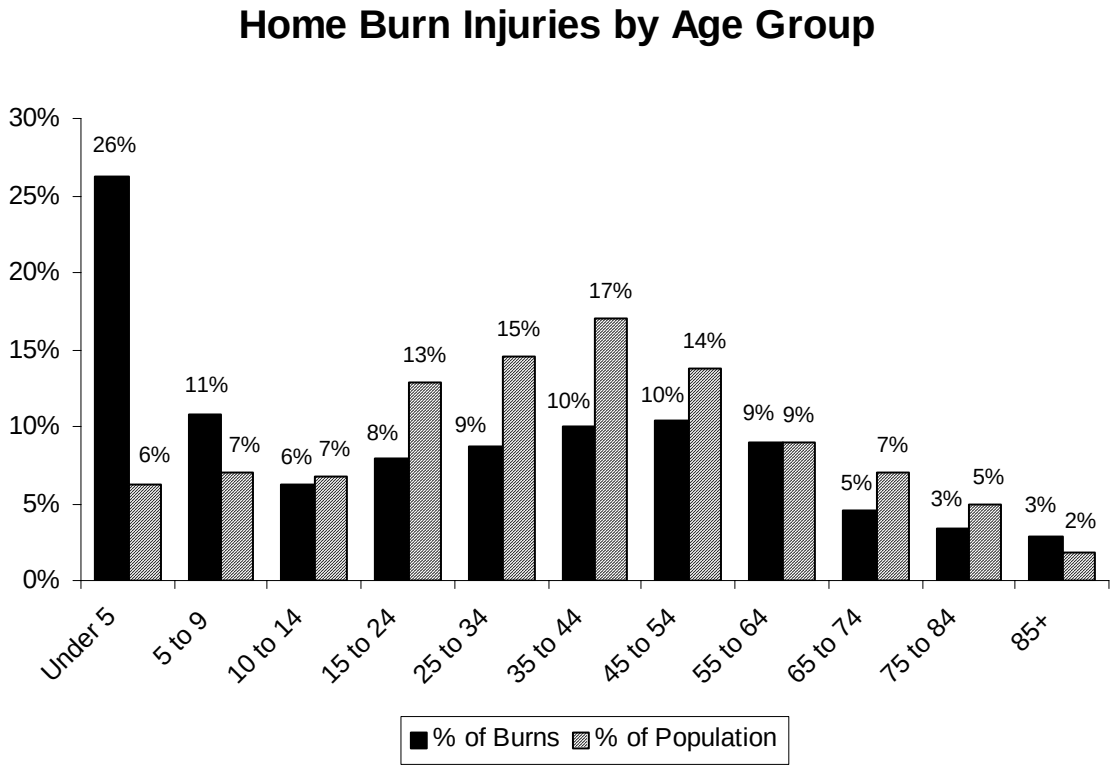
Cooking Caused Over 1/4 of Burn in Homes

In 2005 cooking activities caused the most overall burns regardless of burn type. Burns from cooking caused 64, or 27%, of burns in Massachusetts' homes. Gasoline, including children playing with gasoline accounted for 20, or 8%, of these burns. Smoking activities and paraphernalia caused 13, or 5%, of the burn injuries that were reported to have occurred in Massachusetts' homes in 2005. Children playing with dangerous items such as matches, lighters



and gasoline accounted for nine, or 4%. Heating equipment also caused nine, or 4%, of at home burns.

Over 1/4 of Home Burns Were to Children Under 5
Twenty-six percent (26%) of the 240 victims that received their burns at home of known age were less than five years of age. Children under five years old were 4.2 times more likely to be burned at home. Children between the ages of five and nine received 11% of the home burns while children aged 10 to 14 accounted for 6% of these injuries. Young adults between the ages of 15 and 24 were also responsible for 8% of these burns; 9% were between 25 and 34; 10% were between 35 and 44; another 10% were between 45 and 54; 9% were between 55 and 64; 5% were between 65 and 74; 3% were between 75 and 84; and 3% were over the age of 85-years old.



Hot Tap Water Scalds Youngest & Oldest At Home Burn Victims
A three-month old boy and a three-month old girl, both of whom received scald burns from hot tap water in the tub were the youngest victims to receive an at-home burn injury. The oldest victim to receive a burn at home was an 86-year old woman who received scald burns to 23% of her body surface area from hot tap water.

3% of Home Burns Resulted in Death
Eight (8), or 3%, of the 240 reported burn injuries that occurred in homes in 2005 resulted in death for the victim. Four (4), or 50% of these deaths, were male; and four, or 50%, were female. The youngest victim to die from burns she received at home was a 47-year old woman who received burns to multiple areas of her body in a house fire caused by smoking in bed. The oldest

victim to succumb to her injuries was an 83-year old woman who received burns to multiple parts of her body surface area during a house fire caused by electrical problems. Seven (7), or 88%, of the victims received their injuries in house fires; and one victim (12%) was a homeless man who accidentally ignited his bedding after he fell asleep while smoking.

Burn Injury Reports by Hospital

Forty-seven (47) out of the 97 acute care health care facilities in Massachusetts submitted a total of 411 burn injury reports for 369 victims to the Massachusetts Burn Injury Reporting System (M-BIRS). Some individuals were treated at more than one hospital, resulting in more burn reports than total victims. For information on the number of burn reports submitted by each hospital, please refer to the table *Number of Reported Burn Injuries Per Hospital* in the Appendix.

Law Requires Hospitals to Report Burn Injuries Over 5% of the Body
Massachusetts General Law (MGL) Chapter 112, Section 12A requires all physicians and medical treatment facilities to immediately report treatment of every burn injury extending to 5% or more of a person's body surface area to the State Fire Marshal and to the police department in the community in which the burn occurred.

Hospitals May Fax Reports or Call and Submit Written Reports
Health care facilities now have a choice about how to report burn injuries. If they choose to do so, health care providers may now fax their burn injury reports to the State Fire Marshal at the Department of Fire Services, (978) 567-3199. A completed transmission will satisfy both the telephone and written notification provisions of the law. Hospitals not opting for the fax report method must report burn injuries by telephone at (800) 475-3443 and submit a written report.

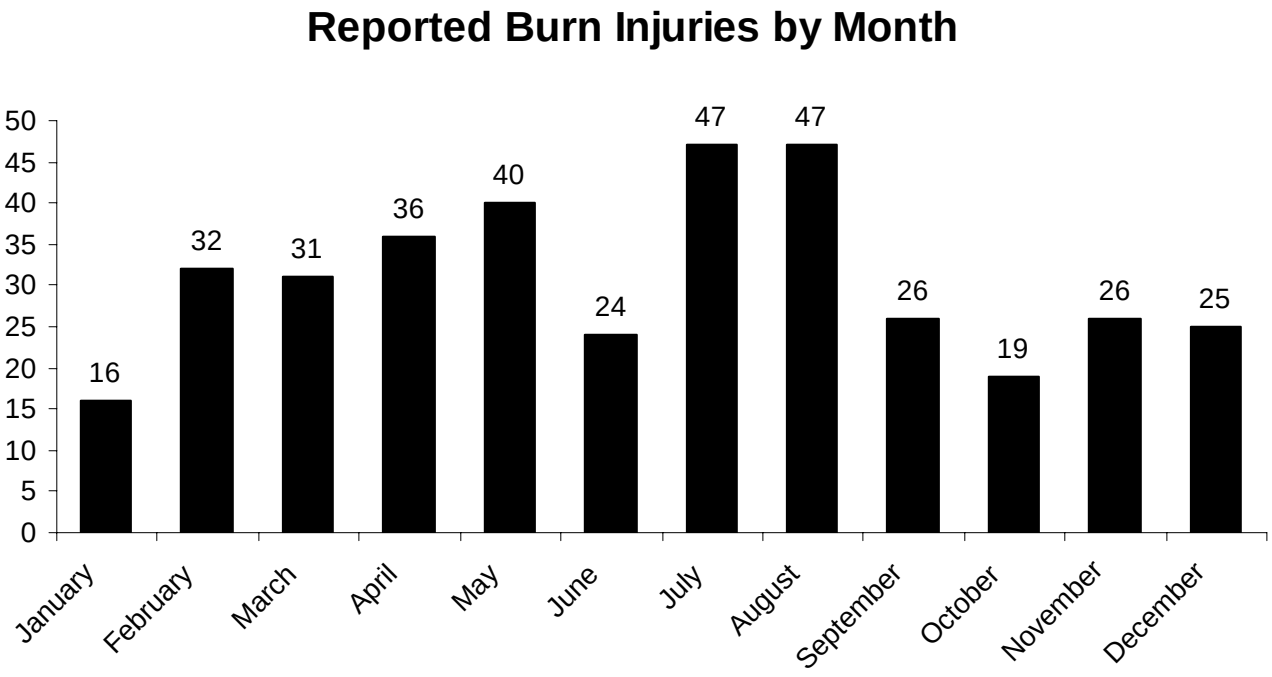
Although M-BIRS was instituted under the Department of Public Safety in June of 1984, Massachusetts hospitals have been required to report burn injuries to a government agency since 1973. M-BIRS, along with the Office of the State Fire Marshal, was carried over to the newly created Department of Fire Services in 1996. It remains a joint program of the Department of Fire Services and the Massachusetts Department of Public Health.

M-BIRS Has Two Main Purposes — Identifying Arsonists and Burn Prevention
Data collected by the Massachusetts Burn Injury Reporting System is used in several ways. Investigators use the data to determine if an arsonist was treated for a burn that resulted from an attempt to illegally burn a building or vehicle. If these burns are not reported promptly, arsonists may continue to light fires that threaten life and property. Our data has also been used to identify problems that need to be addressed by public education or regulation and to develop appropriate strategies. We need to know what type of activity injures whom, if the injuries are seasonal, and how old the victims are to develop and implement effective prevention programs. We appreciate

the efforts of the many dedicated doctors, nurses and clerical personnel who report the burn injuries promptly and completely. They make the program work.

Burn Injuries by Month

Average of 31 Burns a Month
An average of 31 burns was reported during each month of 2005, from a low of 16 in January to highs of 47 in July and August. This average is up from 30 burns per month in 2004 and 2001, and down from 35 burns per month in 2003, 39 burns per month in 2000 and 38 burns per month in 1999. In 2002, the average number of burns per month was also 31. It is also below the 10 year (1996-2005) average of 35 burns per month.

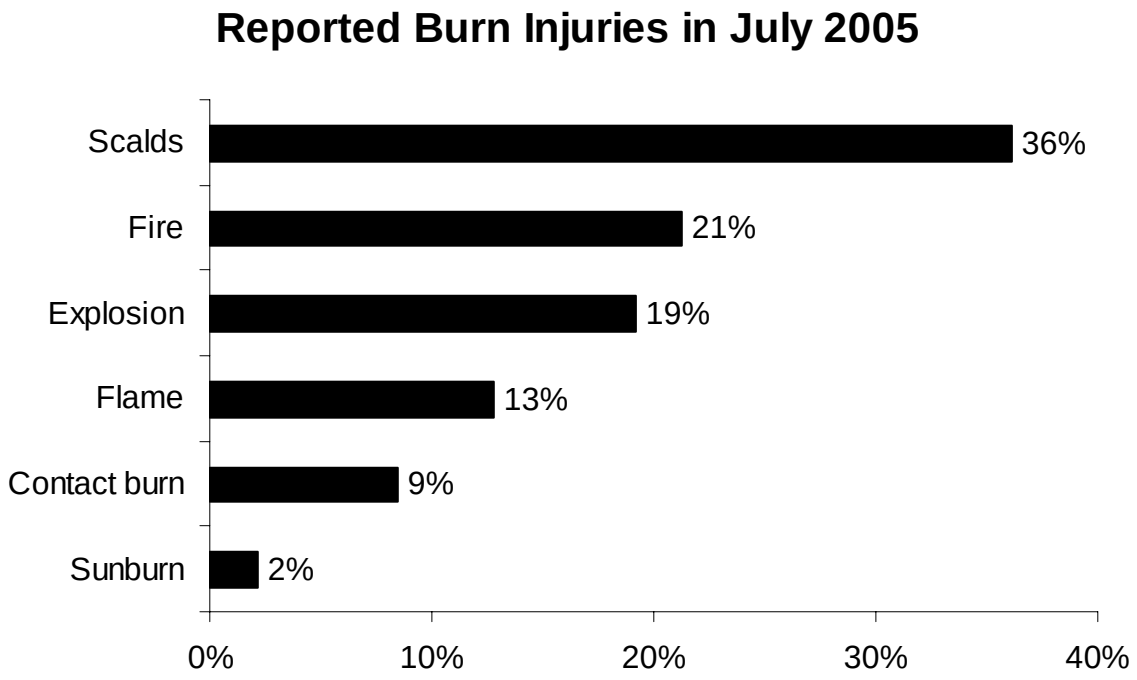


Scalds caused the most burn injuries during 10 months of the year. In September both scalds and burns from fire were tied as the cause of the most burns injuries. In June and August, burns from fire was the leading cause of reported burn injuries. In January flame burn injuries were the leading cause of burns injuries.

July and August Were Peak Months for Burns
July and August were tied as the peak months for burns in 2005. Both months had 47 burn injuries reported to M-BIRS. But the leading cause or rank order were different in each month when you might expect them to be the same in the two summer months.

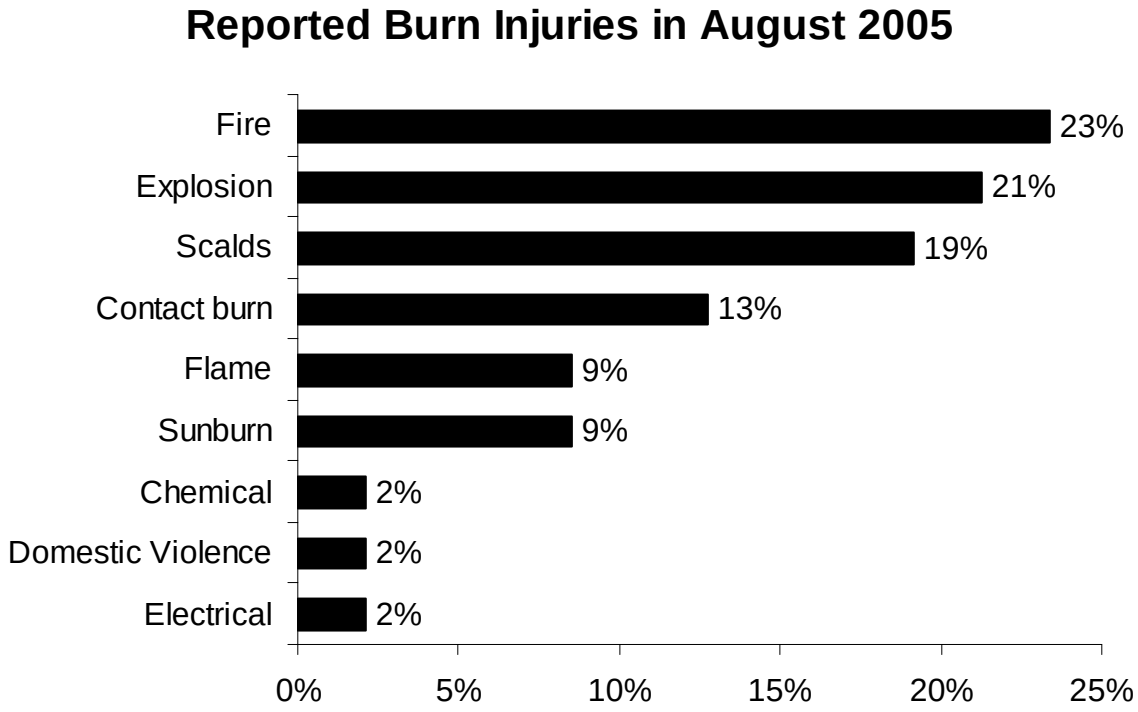
Scalds accounted for 17, or 36%, of July's burns. Burns from fires accounted for 10, or 21% of July's burn injuries. There were nine explosion burn injuries in July accounting for 19% of the total burn injuries. Flame burn injuries caused six, or 13%, of the burns in July of 2005. Contact with hot objects caused four, or 9%, of the burn injuries this month. One sunburn caused 2% of these injuries in July 2005 in Massachusetts.

The following chart indicates the leading causes of burn injuries reported in July of 2005.



Burns from fires accounted for 11, or 23% of August's burn injuries. There were 10 explosion burn injuries in August accounting for 21% of the total burn injuries. Scalds accounted for nine, or 19%, of these burns. Contact with hot objects caused six, or 13%, of the burn injuries this month. Flame burn injuries and sunburns each caused four, or 9%, of the burns in August of 2005. An unspecified electrical burn, an act of domestic violence and a chemical burn each caused 2% of these injuries in August 2005 in Massachusetts.

The following chart indicates the leading causes of burn injuries reported in August of 2005.



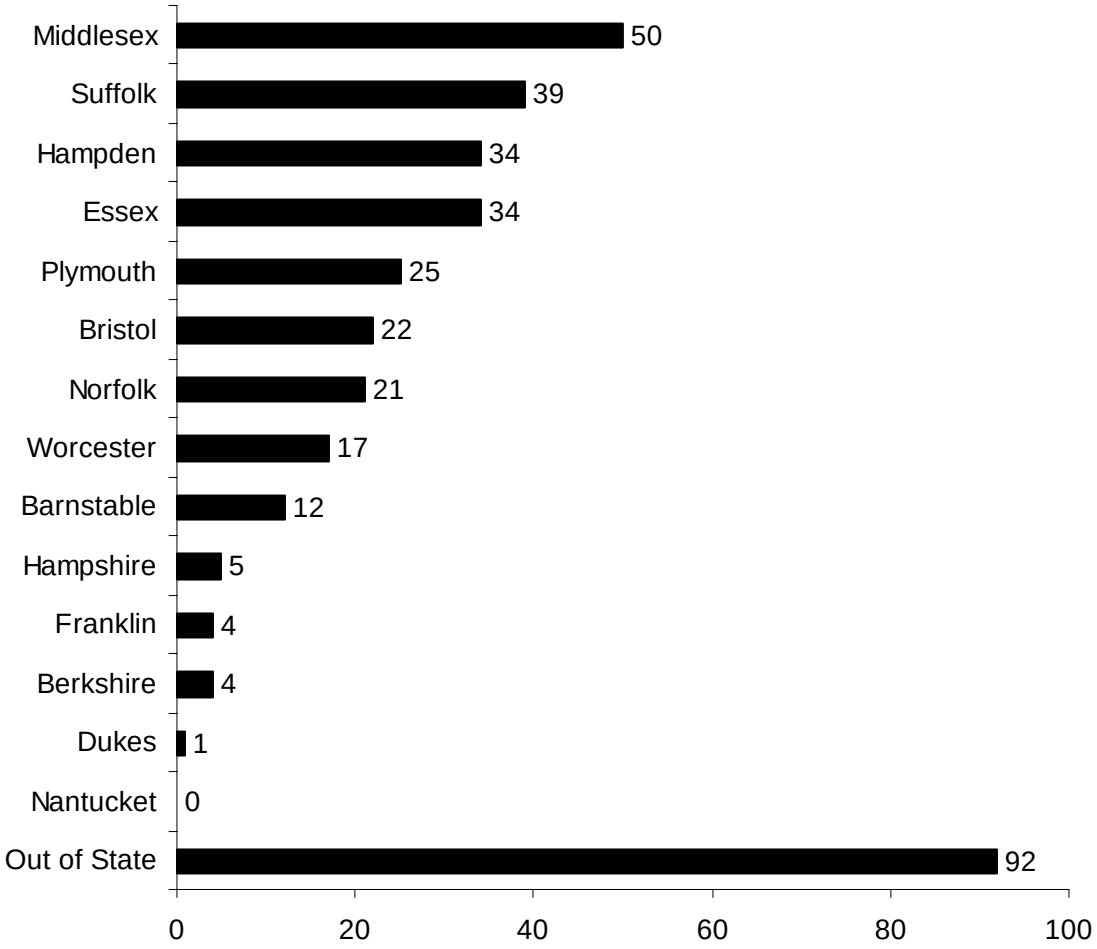
For more information, please refer to the table *Causes of Burn Injuries by Month* in the Appendix.

Geographical Demographics

Massachusetts Burn Victims from 116 Cities and Towns
Massachusetts medical facilities treated 268 residents of 116 Massachusetts cities and towns. Burn victims came from every county in the Commonwealth. The largest numbers of reported burn injuries were incurred by residents of Middlesex, Suffolk, Hampden and Essex counties. It appears that some large Boston hospitals (Suffolk County) may have under reported the burns they treated.

Ninety-two (92) burn victims from out-of-state received treatment at Massachusetts facilities. Some of the people were injured while vacationing here; others came to Massachusetts specifically for the specialized treatment of burn injuries that is available in the Commonwealth.

Reported Burn Injuries by County



For information on the number of burn victims from each Massachusetts community, please refer to the table *Burn Injuries by Victim's Community* in the Appendix.

Boston & Springfield had the Most Reported Burn Injuries
Boston was home to the most burn injury victims with 36 of its citizens reported to have a burn injury in 2005. Springfield had the second most number of victims at 18. Lowell had 11 injuries reports and Brockton had nine of their citizens receiving burn injuries. Haverhill, Lawrence, Lynn, and Quincy each had six reported burn injuries.

However the map on page 65, *2005 Burns by 10K Population*, displays the number of burns reported by community for every 10,000 of its citizens. The darker the community is shaded the more burns were reported from that municipality. Cities and towns that are white did not have a reported burn injury in 2005.

If we look at the number of burn injuries compared to the total population of the individual community we get a different picture. One would expect that the bigger cities and towns to have more burn injuries because of their populations. When we calculate the rate of reported burn injuries for every 10,000 people in a given municipality, the ranking changes. The top six communities in terms of number of reported injuries fall towards the bottom of the rankings. Communities with one, two or three reported burns take over the top spots because of the very small populations. These communities may have a rate that far exceeds that actual number of burns that were reported. The legend symbols are consistent in both maps.

Washington had the highest rate of 18.4 burn injuries per 10,000 population. Next highest was Manchester with 9.6 burn injuries per 10,000 population; Dunstable had 3.5; Sheffield had 3.0; and Tisbury had 2.7 and Bolton had 2.4 burn injuries per 10,000 population.

The map on page 66, *2005 Scalds per 10K Population,* displays the rate of reported scald burn injuries by the victim's home community for every 10,000 of that community's population. The darker the community is shaded the more burn injuries per 10,000 people were reported from that municipality. Cities and towns that are white did not have a reported burn injury in 2005.

Manchester had the highest rate of 5.7 scald burn injuries per 10,000 population. Next highest was Tisbury with 2.7 scald burn injuries per 10,000 population; Hanson had 2.1; Boxborough and Norwell each had 2.0; and Harvard had 1.7 scald burn injuries per 10,000 population.

2005 Appendix

* Italicized names are sub-categories for the headings listed above them.

Specific Causes of Burn Injuries

Cause	# of Burns	% of Burns
Scalds	**130**	**35.2%**
Cooking	62	16.8%
Cooking Liquids	*48*	*13.0%*
Food	*10*	*2.7%*
Cooking (Unspec.)	*3*	*0.8%*
Beverages	35	9.5%
Hot Tap Water	21	5.7%
Car Radiator	5	1.4%
Steam	5	1.4%
Assault	1	0.3%
Appliance	1	0.3%
Wax	1	0.3%
Fires	**86**	**23.3%**
House Fires	38	10.3%
House Fire (Unspec.)	*20*	*5.4%*
Electrical	*4*	*1.1%*
Smoking in Bed	*4*	*1.1%*
Smoking (Unspec.)	*3*	*0.8%*
Smoking/Oxygen	*1*	*0.3%*
Arson	*1*	*0.3%*
Candle	*1*	*0.3%*
Child w/Lighter	*1*	*0.3%*
Clothes	*1*	*0.3%*
Gasoline	*1*	*0.3%*
Ignitable Liquids	*1*	*0.3%*
Camp or Bon Fires	24	6.5%
Gasoline	*7*	*1.9%*
Campfire (Unspec.)	*6*	*1.6%*
Bon Fire (Unspec.)	*4*	*1.1%*
Clothes	*2*	*0.5%*
Aerosol	*1*	*0.3%*
Cook/Clothes	*1*	*0.3%*
Embers	*1*	*0.3%*
Flammables	*1*	*0.3%*
Motor Vehicle Fires	14	3.8%
MVA	*6*	*1.6%*
Plane Crash	*2*	*0.5%*
Boat Fire	*1*	*0.3%*
Car Fire	*1*	*0.3%*
Explosion	*1*	*0.3%*
Ignitable Liquids	*1*	*0.3%*
Self-immolation	*1*	*0.3%*

Cause	# of Burns	% of Burns
Fire (con't)		
Smoking/Clothes	*1*	*0.3%*
Brush Fires	4	1.1%
Brush Fire (Unspec.)	*3*	*0.8%*
Gasoline	*1*	*0.3%*
Structure Fires	2	0.5%
Arson	*1*	*0.3%*
Gasoline	*1*	*0.3%*
Fire (Unspec.)	4	1.1%
Flashburn	*1*	*0.3%*
Gasoline	*1*	*0.3%*
Smoking in Bed	*1*	*0.3%*
Trash	*1*	*0.3%*
Flame Burns	**67**	**18.2%**
Cooking	19	5.1%
Cooking/Clothes	*11*	*3.0%*
Barbeque	*2*	*0.5%*
Cooking (Unspec.)	*2*	*0.5%*
Cooking Liquids	*2*	*0.5%*
Gas Stove	*1*	*0.3%*
Stove	*1*	*0.3%*
Ignitable Liquids	10	2.7%
Gasoline	*9*	*2.4%*
Ignitable Liquids	*1*	*0.3%*
Child Playing	6	1.6%
Child w/Gasoline	*5*	*1.4%*
Child w/Matches	*1*	*0.3%*
Smoking	5	1.4%
Smoking in Bed	*3*	*0.8%*
Cigarette	*1*	*0.3%*
Lighter	*1*	*0.3%*
Candle	3	0.8%
Candle	*2*	*0.5%*
Candle/Clothes	*1*	*0.3%*
Explosives	3	0.8%
Fireworks	*2*	*0.5%*
Bomb Making	*1*	*0.3%*
Welding & Cut. Torch	3	0.8%
Welding	*3*	*0.5%*
Cutting Torch	*2*	*0.3%*
Alcohol	3	0.8%
Clothing Ignition	3	0.8%

Cause	# of Burns	% of Burns
Flame Burns (con't)		
Self-Immolation	3	0.8%
Heating Equipment	2	0.5%
Woodstove	*1*	*0.3%*
Heater	*1*	*0.3%*
Flammables	2	0.5%
Propane	2	0.5%
Assault	1	0.3%
Drugs	1	0.3%
Flashburn	1	0.3%
Explosions	**44**	**11.9%**
Ignitable Liquids	9	2.4%
Gasoline	*8*	*2.2%*
Child w/Gasoline	*1*	*0.3%*
Electrical	8	2.2%
Electrical (Unspec.)	*7*	*1.9%*
Electrocution	*1*	*0.3%*
Ignitable Gas	7	1.9%
Propane	*6*	*1.6%*
Natural Gas	*1*	*0.3%*
Explosives	4	1.1%
Fireworks	*3*	*0.8%*
Explosives (Unspec.)	*1*	*0.3%*
Aerosol Can	4	1.1%
Cooking	2	0.5%
Barbeque	*1*	*0.3%*
Stove	*1*	*0.3%*
Heating Equipment	2	0.5%
Boiler	*1*	*0.3%*
Heater	*1*	*0.3%*
Boat	2	0.5%
Explosion (Unspec.)	2	0.5%
Car Part	1	0.3%
Flammables	1	0.3%
MVA	1	0.3%
Smoking	1	0.3%

Cause	# of Burns	% of Burns
Contact Burns	**23**	**6.2%**
Heating Equipment	4	1.1%
Radiator	*2*	*0.5%*
Heater	*1*	*0.3%*
Woodstove	*1*	*0.3%*
Cooking	3	0.8%
Oven	*1*	*0.3%*
Stove	*1*	*0.3%*
Cooking (Unspec.)	*1*	*0.3%*
Metal	3	0.8%
Curling Iron	3	0.8%
Asphalt	2	0.5%
Car Part	2	0.5%
Machine	2	0.5%
Clothes Iron	1	0.3%
Electrical (Unspec.)	1	0.3%
Heating Pad	1	0.3%
Wax	1	0.3%
Other Burn Injuries	**14**	**3.8%**
Chemical	8	2.2%
Sunburn	6	1.6%
Electrical	**4**	**1.1%**
Electrical (Unspec.)	3	0.8%
Electrocution	1	0.3%
Domestic Violence	**1**	**0.3%**
Cigarette	1	0.3%

Causes of Burn Injuries by Age

UNDER 5	**74**	**20.1 %**
Cause	**# of Burns**	**% By Age**
Scalds	**56**	**75.7%**
Beverages	23	31.1%
Hot Tap Water	16	21.6%
Cooking	16	21.6%
Cooking Liquids	*10*	*13.5%*
Food	*6*	*8.1%*
Steam	1	1.4%
Fire	**9**	**12.2%**
House Fire	6	8.1%
House Fire (Unspec.)	*5*	*6.8%*
Child w/Lighter	*1*	*1.4%*
Camp or Bonfires	2	2.7%
Cooking/Clothes	*1*	*1.4%*
Camp Fire (Unspec.)	*1*	*1.4%*
Contact	**7**	**9.5%**
Curling Iron	3	4.1%
Electrical	1	1.4%
Machine	1	1.4%
Metal	1	1.4%
Wax	1	1.4%
Flame	**1**	**1.4%**
Candle/Clothes	1	1.4%
Other	**1**	**1.4%**
Chemical	1	1.4%

AGES 5 TO 9	**27**	**7.3%**
Cause	**# of Burns**	**% By Age**
Scalds	**12**	**44.4%**
Cooking Liquids	7	25.9%
Beverages	4	14.8%
Appliance	1	3.7%
Fires	**7**	**25.9%**
House Fires	6	22.2%
House Fire (Unspec.)	*6*	*22.2%*
Fire, Other	1	3.7%
Trash	*1*	*3.7%*
Flame	**4**	**14.8%**
Child Playing	2	7.4%
Child w/Lighter	*1*	*3.7%*
Child w/Matches	*1*	*3.7%*
Ignitable Liquids	1	3.7%
Contact	**1**	**3.7%**
Car Part	1	3.7%
Other	**3**	**9.1%**
Chemical	2	7.4%
Sunburn	1	3.7%

AGES 10 TO 14	**26**	**7.0%**
Cause	**# of Burns**	**% By Age**
Fire	**7**	**26.9%**
Camp or Bon Fires	4	15.4%
Clothes	*2*	*7.7%*
Aerosol Can	*1*	*3.8%*
Flammables	*1*	*3.8%*
House Fire	3	11.5%
Gasoline	*1*	*3.8%*
Ignitable Liquids	*1*	*3.8%*
House Fire (Unspec.)	*1*	*3.8%*
Flame	**7**	**26.9%**
Ignitable Liquids	3	11.5%
Child w/Gasoline	*2*	*7.7%*
Gasoline	*1*	*3.8%*
Explosives	2	7.7%
Bomb Making	*1*	*3.8%*
Fireworks	*1*	*3.8%*
Candle	1	3.8%
Flammables	1	3.8%
Explosion	**5**	**19.2%**
Ignitable Liquids	2	7.7%
Child w/Gasoline	*1*	*3.8%*
Gasoline	*1*	*3.8%*
Barbeque	1	3.8%
Electrocution	1	3.8%
Aerosol Can	1	3.8%

Cause	**# of Burns**	**% By Age**
Scalds	**4**	**15.4%**
Beverages	2	7.7%
Cooking	2	7.7%
Cooking Liquids	*1*	*3.8%*
Food	*1*	*3.8%*
Contact Burns	**1**	**3.8%**
Clothes Iron	1	3.8%
Electrical	**1**	**3.8%**
Electrical (Unspec.)	1	3.8%
Other	**1**	**3.8%**
Sunburn	1	3.8%

AGES 15 TO 24	**58**	**15.7%**
Cause	**# of Burns**	**% By Age**
Fire	**19**	**32.8%**
Camp or Bon Fires	11	19.0%
Gasoline	*4*	*6.9%*
Bon Fire (Unspec.)	*4*	*6.9%*
Camp Fire (Unspec.)	*2*	*3.4%*
Embers	*1*	*1.7%*
Vehicle Fires	5	8.6%
MVA	*4*	*6.9%*
Boat Fire	*1*	*1.7%*
House Fires	2	3.4%
Arson	*1*	*1.7%*
House Fire (Unspec.)	*1*	*1.7%*
Brush Fires	1	1.7%
Flame	**13**	**22.4%**
Ignitable Liquids	6	10.3%
Gasoline	*4*	*6.9%*
Child w/Gasoline	*2*	*3.4%*
Welding & Cut. Torch	2	3.4%
Welding	*1*	*1.7%*
Cutting Torch	*1*	*1.7%*
Alcohol	1	1.7%
Fireworks	1	1.7%
Heater	1	1.7%
Lighter	1	1.7%
Self-immolation	1	1.7%

Cause	**# of Burns**	**% By Age**
Scalds	**12**	**20.7%**
Cooking Liquids	5	8.6%
Beverages	3	5.2%
Hot Tap Water	2	3.4%
Assault	1	1.7%
Car Radiator	1	1.7%
Explosion	**10**	**17.2%**
Aerosol Can	2	3.4%
Electrical	2	3.4%
Propane	2	3.4%
Gasoline	1	1.7%
Fireworks	1	1.7%
Flammables	1	1.7%
Electrical	**1**	**1.7%**
Electrocution	1	1.7%
Other	**3**	**5.2%**
Sunburn	2	3.4%
Chemical	1	1.7%

AGES 25 TO 34	**37**	**10.0%**
Cause	**# of Burns**	**% By Age**
Scalds	**11**	**29.7%**
Cooking	10	30.3%
Cooking Liquids	*8*	*21.6%*
Food	*2*	*5.4%*
Beverages	1	2.7%
Flame	**10**	**27.0%**
Cooking	4	10.8%
Barbeque	*1*	*2.7%*
Cooking (Unspec.)	*1*	*2.7%*
Cooking Liquids	*1*	*2.7%*
Gas Stove	*1*	*2.7%*
Alcohol	1	2.7%
Cigarette	1	2.7%
Flashburn	1	2.7%
Gasoline	1	2.7%
Propane	1	2.7%
Self-immolation	1	2.7%
Fire	**8**	**21.6%**
Camp or Bon Fire	3	8.1%
Gasonline	*3*	*8.1%*
Vehicle Fires	3	8.1%
Car Fire	*1*	*2.7%*
Explosion	*1*	*2.7%*
MVA	*1*	*2.7%*
House Fires	2	5.4%
Electrical	*1*	*2.7%*
House Fires (Unspec.)	*1*	*2.7%*

Cause	**# of Burns**	**% By Age**
Explosions	**5**	**13.5%**
Boat	1	2.7%
Electrical	1	2.7%
Fireworks	1	2.7%
Gasoline	1	2.7%
Smoking	1	2.7%
Contact Burns	**1**	**2.7%**
Heater	1	2.7%
Electrical	**1**	**2.7%**
Unspecified	1	2.7%
Other	**1**	**2.7%**
Sunburn	1	2.7%

AGES 35 TO 44	**50**	**13.6%**
Cause	**# of Burns**	**% By Age**
Scalds	**14**	**28.0%**
Cooking	5	10.0%
Cooking Liquids	*4*	*8.0%*
Cooking (Unspec.)	*1*	*2.0%*
Steam	3	6.0%
Car Radiator	3	6.0%
Beverages	1	2.0%
Hot Tap Water	1	2.0%
Wax	1	2.0%
Fire	**13**	**26.0%**
House Fires	5	10.0%
House Fire (Unspec.)	*3*	*6.0%*
Smoking in Bed	*1*	*2.0%*
Smoking	*1*	*2.0%*
Camp or Bon Fires	3	6.0%
Campfire (Unspec.)	*2*	*4.0%*
Assault	*1*	*2.0%*
Vehicle Fires	2	4.0%
Ignitable Liquids	*1*	*2.0%*
Self-immolation	*1*	*2.0%*
Brush Fires	1	2.0%
Brush Fire (Unspec.)	*1*	*2.0%*
Fire, other	1	2.0%
Flashburn	*1*	*2.0%*
Explosions	**10**	**20.0%**
Gasoline	3	6.0%
Explosives	2	4.0%
Explsoives (Unspec.)	*1*	*2.0%*
Fireworks	*1*	*2.0%*

Cause	**# of Burns**	**% By Age**
Explosions (con't)		
Aerosol Can	1	2.0%
Boat	1	2.0%
Electrical	1	2.0%
MVA	1	2.0%
Propane	1	2.0%
Flame	**6**	**12.0%**
Alcohol	1	2.0%
Assualt	1	2.0%
Clothes	1	2.0%
Drugs	1	2.0%
Gasoline	1	2.0%
Self-immolation	1	2.0%
Contact	**4**	**8.0%**
Asphalt	1	2.0%
Machine	1	2.0%
Metal	1	2.0%
Oven	1	2.0%
Domestic Violence	**1**	**2.0%**
Cigarette	1	2.0%
Other	**2**	**4.0%**
Chemical	1	2.0%
Sunburn	1	2.0%

AGES 45 TO 54	**38**	**10.3%**
Cause	**# of Burns**	**% By Age**
Flame	**12**	**31.6%**
Cooking	6	15.8%
Cooking/Clothes	*2*	*5.3%*
Barbeque	*1*	*2.6%*
Cooking (Unspec.)	*1*	*2.6%*
Cooking Liquids	*1*	*2.6%*
Stove	*1*	*2.6%*
Clothing Ignition	2	5.3%
Gasoline	1	2.6%
Propane	1	2.6%
Welding	1	2.6%
Woodstove	1	2.6%
Scalds	**10**	**26.3%**
Cooking	7	18.4%
Cooking Liquids	*5*	*13.2%*
Cooking (Unspec.)	*1*	*2.6%*
Food	*1*	*2.6%*
Beverages	1	2.6%
Car Radiator	1	2.6%
Steam	1	2.6%
Fire	**7**	**18.4%**
House Fires	5	13.2%
Candle	*1*	*2.6%*
Clothes	*1*	*2.6%*
Smoking	*1*	*2.6%*
Smoking in Bed	*1*	*2.6%*
House Fire (Unspec.)	*1*	*2.6%*

Cause	**# of Burns**	**% By Age**
Fires (con't)		
Brush Fires	1	2.6%
Unspecified	*1*	*2.6%*
Fire, Other	1	2.6%
Smoking in Bed	*1*	*2.6%*
Explosions	**6**	**15.8%**
Electrical	2	5.3%
Heating Equipment	2	5.3%
Boiler	*1*	*2.6%*
Heater	*1*	*2.6%*
Ignitable Gases	2	5.3%
Natural Gas	*1*	*2.6%*
Propane	*1*	*2.6%*
Contact	**2**	**5.3%**
Asphalt	1	2.6%
Cooking (Unspec.)	1	2.6%
Other	**1**	**2.6%**
Chemical	1	2.6%

AGES 55 TO 64	**29**	**7.9%**
Cause	**# of Burns**	**% By Age**
Fire	**8**	**27.6%**
House Fires	3	10.3%
Electrical	*2*	*6.9%*
Smoking	*1*	*3.4%*
Vehicle Fires	2	6.9%
Plane Crash	*2*	*6.9%*
Brush Fires	1	3.4%
Gasoline	*1*	*3.4%*
Camp or Bon Fires	1	3.4%
Camp Fire (Unspec.)	*1*	*3.4%*
Fire, other	1	3.4%
Gasoline	*1*	*3.4%*
Scalds	**6**	**20.7%**
Cooking Liquids	5	17.2%
Hot Tap Water	1	3.4%
Flame	**5**	**17.2%**
Cooking/Clothes	2	6.9%
Smoking in Bed	2	6.9%
Candle	1	3.4%
Explosion	**5**	**17.2%**
Gasoline	2	6.9%
Car Part	1	3.4%
Electrical	1	3.4%
Propane	1	3.4%
Contact	**2**	**6.9%**
Heating Pad	1	3.4%
Woodstove	1	3.4%
Electrical	**1**	**3.4%**
Electrical (Unspec.)	1	3.4%
Other	**2**	**6.9%**
Chemical	2	6.9%

AGES 65+	**30**	**8.1%**
Cause	**# of Burns**	**% By Age**
Flame	**9**	**30.0%**
Cooking/Clothes	6	20.0%
Flammables	1	3.3%
Gasoline	1	3.3%
Smoking in Bed	1	3.3%
Fire	**8**	**26.7%**
House Fires	6	20.0%
Electrical	*1*	*3.3%*
Smoking in Bed	*1*	*3.3%*
Smoking on Oxygen	*1*	*3.3%*
House Fire (Unspec.)	*1*	*3.3%*
Structure Fires	1	3.3%
Gasoline	*1*	*3.3%*
Vehicle Fires	1	3.3%
Smoking/Clothes	*1*	*3.3%*
Scalds	**5**	**16.7%**
Cooking	4	13.3%
Cooking Liquids	*3*	*10.0%*
Cooking (Unspec.)	*1*	*3.3%*
Hot Tap Water		3.3%
Contact	**5**	**16.7%**
Car Part	1	3.3%
Metal	1	3.3%
Radiator	1	3.3%
Stove	1	3.3%
Explosion	**3**	**10.0%**
Explosion (Unspec.)	2	6.7%
Propane	1	3.3%

Causes of Work-Related Burns

Cause	# of Burns	% of Total
Scalds	**20**	**38%**
Cooking	10	20%
Cooking Liquids	*8*	*16%*
Food	*2*	*4%*
Steam	3	6%
Beverages	3	6%
Hot Tap Water	2	4%
Assault	1	2%
Car Radiator	1	2%
Explosion	**15**	**28%**
Electrical	6	12%
Ignitable Gas	5	10%
Propane	*4*	*8%*
Natural Gas	*1*	*2%*
Aerosol Can	1	2%
Gasoline	1	2%
Heater	1	2%
MVA	1	2%
Flame	**9**	**17%**
Gasoline	2	4%
Weld. & Cut. Torch	2	4%
Welding	*1*	*2%*
Cutting Torch	*1*	*2%*
Cooking (Unspec.)	1	2%
Clothing Ignition	1	2%
Flashburn	1	2%
Heater	1	2%
Propane	1	2%

Cause	# of Burns	% of Total
Fire	**3**	**6%**
House Fires	1	2%
Smoking	*1*	*1%*
Structure Fires	1	2%
Gasoline	*1*	*2%*
MV Fires	1	2%
Boat Fire	*1*	*2%*
Contact	**2**	**4%**
Cooking	1	2%
Machine	1	2%
Electrical	**1**	**2%**
Unspecified	1	2%
Other	**3**	**6%**
Chemical	3	6%
Total	**53**	**100%**

Number of Reported Burns Per Hospital

Addison Gilbert Hospital	4
Anna Jaques Hospital	5
Baystate Medical Center	28
Berkshire Medical Center	1
Beverly Hospital	2
Brockton Hospital	4
Brigham & Women's Hospital	51
Cape Cod Hospital	3
Charlton Memorial Hospital	2
Children's Hospital	1
Emerson Hospital	2
Fairview Hospital	2
Falmouth Hospital	2
Faulkner Hospital	1
Franklin Medical Center	3
Good Samaritan Medical Center	4
Health Alliance Hospital, Leominster	1
Henry Heywood Hospital	5
Holy Family Hospital	9
Hubbard Regional Hospital	2
Lawrence General Hospital	3
Lowell General Hospital	3
Marlborough Hospital	5
Massachusetts General Hospital	111
Mercy Hospital	1
Merrimack Valley Hospital	1
Metro West Medical Center	2
Milford-Whitinsville Hospital	2
Morton Hospital & MC	1
New England Medical Center	3
North Shore Medical Center	1
Noble Hospital	1
Norwood Hospital	2
St. Anne's Hospital	2
St. Luke's Hospital	4
Salem Hospital	1
South Shore Hospital	8
Shriners Burns Hospital	111
Sturdy Memorial Hospital	2
Tobey Hospital	4
UMass Amherst	1
UMass Medical Center, University	2
Wachusett Emergency Physicians	1
Wing Memorial Hospital & MC	1

Causes of Burn Injuries by Month

JANUARY	**16**	**4.3%**
Cause	**# of Burns**	**% By Month**
Flame	**6**	**37.5%**
Cooking/Clothes	3	18.8%
Candle	1	6.3%
Clothing Ignition	1	6.3%
Drugs	1	6.3%
Explosion	**3**	**18.8%**
Ignitable Gases	2	12.5%
Natural Gas	*1*	*6.3%*
Propane	*1*	*6.3%*
Electrocution	1	6.3%
Contact	**3**	**18.8%**
Heating Pad	1	6.3%
Oven	1	6.3%
Radiator	1	6.3%
Scalds	**2**	**12.5%**
Beverages	1	6.3%
Cooking Liquids	1	6.3%
Fire	**1**	**6.3%**
Fire, Other	1	6.3%
Trash	*1*	*6.3%*
Other	**1**	**6.3%**
Chemical	1	6.3%

FEBRUARY	**32**	**8.7%**
Cause	**# of Burns**	**% By Month**
Scalds	**14**	**43.8%**
Cooking Liquids	8	25.0%
Beverages	3	9.4%
Hot Tap Water	3	9.4%
Flame	**6**	**18.8%**
Cooking	3	9.4%
Cooking/Clothes	*1*	*3.1%*
Cooking (Unspec.)	*1*	*3.1%*
Stove	*1*	*3.1%*
Clothing Ignition	1	3.1%
Gasoline	1	3.1%
Candle	1	3.1%
Flammables	1	3.1%
Fire	**5**	**15.6%**
House Fires	4	12.5%
House Fire	*2*	*6.3%*
Clothing Ignition	*1*	*3.1%*
Smoking in Bed	*1*	*3.1%*
MV Fires	4	12.5%
MVA	*2*	*6.3%*
Boat Fire	*1*	*3.1%*
Smoking/Clothes	*1*	*3.1%*
Camp or Bon Fires	1	3.1%
Campfire	*1*	*3.1%*
Explosion	**3**	**9.4%**
Unspecified	2	6.3%
Boiler	1	3.1%

2 Deaths

MARCH	**31**	**8.4%**
Cause	**# of Burns**	**% By Month**
Scalds	**13**	**41.9%**
Beverages	5	16.1%
Cooking	5	16.1%
Cooking Liquids	*3*	*9.7%*
Food	*2*	*6.5%*
Hot Tap Water	3	9.7%
Fire	**9**	**29.0%**
House Fires	6	19.4%
House Fire	*5*	*16.1%*
Smoking	*1*	*3.2%*
Brush Fires	2	6.5%
Brush Fire	*1*	*3.2%*
Gasoline	*1*	*3.2%*
Structure Fires	1	3.2%
Arson	*1*	*3.2%*
Flame	**6**	**19.4%**
Weld. & Cut. Torch	2	6.5%
Welding	*1*	*3.2%*
Cutting Torch	*1*	*3.2%*
Cooking/Clothes	1	3.2%
Flashburn	1	3.2%
Smoking in Bed	1	3.2%
Woodstove	1	3.2%
Contact	**2**	**6.5%**
Heating Equipment	2	6.5%
Heater	*1*	*3.2%*
Radiator	*1*	*3.2%*
Electrical	**1**	**3.2%**
Unspecified	1	3.2%

APRIL	**36**	**9.8%**
Cause	**# of Burns**	**% By Month**
Scalds	**13**	**36.1%**
Beverages	5	13.9%
Cooking	5	13.9%
Cooking Liquids	*4*	*11.1%*
Food	*3*	*2.8%*
Hot Tap Water	2	5.6%
Wax	1	2.8%
Flame	**10**	**27.8%**
Cooking	3	8.3%
Cooking Liquids	*2*	*5.6%*
Barbeque	*1*	*2.8%*
Ignitable Liquids	2	5.6%
Child w/Gasoline	*1*	*2.8%*
Gasoline	*1*	*2.8%*
Alcohol	1	2.8%
Propane	1	2.8%
Self-immolation	1	2.8%
Smoking in Bed	1	2.8%
Welding	1	2.8%
Explosion	**4**	**11.1%**
Gasoline	3	8.3%
Flammables	1	2.8%
Fire	**5**	**13.9%**
MV Fires	3	8.9%
Plane Crash	*2*	*5.6%*
MVA	*1*	*2.8%*
House Fires	1	5.6%
Electrical	*1*	*2.8%*
House Fire	*1*	*2.8%*
Other	**2**	**5.6%**
Chemical	2	5.6%
Contact	**1**	**2.8%**
Machine	1	2.8%
Electrical	**1**	**2.8%**
Electrocution	1	2.8%

MAY	**40**	**10.8%**
Cause	**# of Burns**	**% By Month**
Scalds	**15**	**37.5%**
Beverages	4	10.0%
Hot Tap Water	4	10.0%
Cooking	4	10.0%
Cooking Liquids	*3*	*7.5%*
Food	*1*	*2.5%*
Assault	1	2.5%
Car Radiator	1	2.5%
Steam	1	2.5%
Fire	**12**	**30.0%**
Camp or Bon Fires	5	12.5%
Gasoline	*2*	*5.0%*
Aerosol Can	*1*	*2.5%*
Camp Fire	*1*	*2.5%*
Flammables	*1*	*2.5%*
House Fires	4	10.0%
House Fires	*2*	*5.0%*
Gasoline	*1*	*2.5%*
Smoking in Bed	*1*	*2.5%*
Fire, Other	2	5.0%
Flashburn	*1*	*2.5%*
Smoking in Bed	*1*	*2.5%*
Brush Fires	1	2.5%
Brush Fire	*1*	*2.5%*
Flame	**8**	**20.0%**
Gasoline	3	7.5%
Cooking/Clothes	2	5.0%
Child w/Matches	1	2.5%
Cigarette	1	2.5%
Heater	1	2.5%
Explosion	**3**	**7.5%**
Electrical	1	2.5%
Fireworks	1	2.5%
MVA	1	2.5%
Contact	**1**	**2.5%**
Metal	1	2.5%
Other	**1**	**2.5%**
Chemical	1	2.5%

2 Deaths

JUNE	**24**	**6.5%**
Cause	**# of Burns**	**% By Month**
Fire	**10**	**41.7%**
Camp or Bon Fires	4	16.7%
Gasoline	*2*	*8.3%*
Bonfire	*1*	*4.2%*
Camp Fire	*1*	*4.2%*
MV Fires	3	12.5%
MVA	*2*	*8.3%*
Ignitable Liquids	*1*	*4.2%*
House Fires	2	8.3%
Arson	*1*	*4.2%*
House Fire	*1*	*4.2%*
Scalds	**5**	**20.8%**
Beverages	2	8.3%
Cooking	2	8.3%
Cooking Liquids	*1*	*4.2%*
Food	*1*	*4.2%*
Hot Tap Water	1	4.2%
Flame	**4**	**16.7%**
Gasoline	2	8.3%
Cooking/Clothes	1	4.2%
Self-immolation	1	4.2%
Explosion	**2**	**8.3%**
Aerosol Can	1	4.2%
Fireworks	1	4.2%
Other	**1**	**4.2%**
Sunburn	1	4.2%
Contact	**1**	**4.2%**
Car Part	1	4.2%
Electrical	**1**	**4.2%**
Electrical (Unspec.)	1	4.2%

JULY	**47**	**12.7%**
Cause	**# of Burns**	**% By Month**
Scalds	**17**	**36.2%**
Cooking	8	17.0%
Cooking Liquids	*7*	*14.9%*
Unspecified	*1*	*2.1%*
Hot Tap Water	4	8.5%
Beverages	3	6.4%
Car Radiator	2	4.3%
Fire	**10**	**21.3%**
House Fires	6	12.8%
House Fire	*3*	*6.4%*
Electrical	*2*	*4.3%*
Smoking in Bed	*1*	*2.1%*
Camp or Bon Fires	4	8.5%
Camp Fire	*2*	*4.3%*
Assault	*1*	*2.1%*
Gasoline	*1*	*2.1%*
Explosion	**9**	**19.1%**
Gasoline	3	6.4%
Gasoline	*2*	*4.3%*
Child w/Gasoline	*1*	*2.1%*
Aerosol Can	2	4.3%
Barbeque	1	2.1%
Electrical	1	2.1%
Fireworks	1	2.1%
Heater	1	2.1%
Flame	**9**	**26.5%**
Explosives	3	6.4%
Fireworks	*2*	*4.3%*
Bomb Making	*1*	*2.1%*
Gasoline	2	4.3%
Child w/Gasoline	*1*	*2.1%*
Gasoline	*1*	*2.1%*
Barbeque	1	2.1%
Contact	**4**	**8.5%**
Car Part	2	2.1%
Electrical	1	2.1%
Machine	1	2.1%
Metal	1	2.1%
Other	**1**	**2.1%**
Sunburn	1	2.1%

2 Deaths

AUGUST	**47**	**12.7%**
Cause	**# of Burns**	**% By Month**
Fire	**11**	**23.4%**
House Fires	4	8.5%
House Fire	*2*	*4.3%*
Child w/Lighter	*1*	*2.1%*
Smoking on Oxygen	*1*	*2.1%*
Camp or Bonfires	4	8.5%
Gasoline	*2*	*4.3%*
Clothing Ignition	*1*	*2.1%*
Embers	*1*	*2.1%*
Vehicle Fires	2	4.3%
MVA	*1*	*2.1%*
Self-immolation	*1*	*2.1%*
Brush Fires	1	2.1%
Brush Fire	*1*	*2.1%*
Explosion	**10**	**21.3%**
Electrical	3	6.4%
Propane	3	6.4%
Gasoline	2	4.3%
Car Part	1	2.1%
Explosives	1	2.1%
Scalds	**9**	**19.1%**
Cooking	5	10.6%
Cooking Liquids	*3*	*6.4%*
Cooking (Unspec.)	*2*	*2.1%*
Car Radiator	2	4.3%
Beverages	1	2.1%
Hot Tap Water	1	2.1%
Contact	**6**	**12.8%**
Curling Iron	2	4.3%
Asphalt	1	2.1%
Clothes Iron	1	2.1%
Cooking (Unspec.)	1	2.1%
Wax	1	2.1%
Flame	**4**	**8.5%**
Gasoline	2	4.3%
Gasoline	*1*	*2.1%*
Child w/Gasoline	*1*	*2.1%*
Assault	1	2.1%
Candle/Clothes	1	2.1%
Other	**5**	**10.6%**
Sunburn	4	8.5%
Chemical	1	2.1%
Domestic Violence	**1**	**2.1%**
Cigarette	1	2.1%

2 Deaths

SEPTEMBER	**26**	**7.0%**
Cause	**# of Burns**	**% By Month**
Scalds	**14**	**40.0%**
Cooking	5	19.2%
Cooking Liquids	*4*	*15.4%*
Food	*1*	*3.8%*
Beverages	1	3.8%
Hot Tap Water	1	3.8%
Steam	1	3.8%
Fire	**8**	**30.8%**
Camp or Bon Fires	4	15.4%
Alcohol	*3*	*11.5%*
Camp Fire	*1*	*3.8%*
House Fires	2	7.7%
Electrical	*1*	*3.8%*
Smoking (Unspec.)	*1*	*3.8%*
Structure Fires	1	3.8%
Gasoline	*1*	*3.8%*
MV Fires	1	3.8%
Car Fire	*1*	*3.8%*
Explosion	**6**	**23.1%**
Boat	2	7.7%
Aerosol Can	1	3.8%
Propane	1	3.8%
Smoking	1	3.8%
Stove	1	3.8%
Flame	**3**	**11.5%**
Cooking/Clothse	2	7.7%
Self-immolation	1	3.8%
Contact	**1**	**3.8%**
Asphalt	1	3.8%

OCTOBER	**19**	**5.1%**
Cause	**# of Burns**	**% By Month**
Scalds	**9**	**47.4%**
Beverages	3	15.8%
Cooking Liquids	2	10.5%
Food	2	10.5%
Steam	2	10.5%
Flame	**4**	**21.1%**
Child w/Gasoline	1	5.3%
Flammables	1	5.3%
Lighter	1	5.3%
Propane	1	5.3%
Explosion	**3**	**15.8%**
Electrical	2	10.5%
Propane	1	5.3%
Fire	**2**	**10.5%**
House Fires	1	5.3%
House Fire	*1*	*5.3%*
Camp or Bon Fires	1	5.3%
Cooking/Clothes	*1*	*5.3%*
Other	**1**	**5.3%**
Chemical	1	5.3%

NOVEMBER	**26**	**7.0%**
Cause	**# of Burns**	**% By Month**
Scalds	**15**	**57.7%**
Cooking	9	34.6%
Cooking Liquids	*8*	*30.8%*
Food	*1*	*3.8%*
Beverages	4	15.4%
Hot Tap Water	1	3.8%
Steam	1	3.8%
Fire	**6**	**23.1%**
House Fires	4	15.4%
House Fires	*3*	*11.5%*
Smoking (Unspec.)	*1*	*3.8%*
Camp or Bon Fires	1	3.8%
Clothing Ignition	*1*	*3.8%*
Vehicle Fires	1	3.8%
Explosion	*1*	*3.8%*
Flame	**4**	**15.4%**
Alcohol	1	3.8%
Cooking (Unspec.)	1	3.8%
Ignitable Liquids	1	3.8%
Smoking in Bed	1	3.8%
Other	**1**	**3.8%**
Chemical	1	3.8%

1 Death

DECEMBER	**25**	**6.8%**
Cause	**# of Burns**	**% By Month**
Scalds	**10**	**40.0%**
Cooking	5	20.0%
Cooking Liquids	*4*	*16.0%*
Food	*1*	*4.0%*
Beverages	3	12.0%
Appliance	1	4.0%
Hot Tap Water	1	4.0%
Flame	**6**	**24.0%**
Clothing	2	8.0%
Cooking/Clothes	*1*	*4.0%*
Clothing Ignition	*1*	*4.0%*
Gasoline	2	8.0%
Child w/Gasoline	*1*	*4.0%*
Gasoline	*1*	*4.0%*
Alcohol	1	4.0%
Gas Stove	1	4.0%
Contact	**4**	**16.0%**
Curling Iron	1	4.0%
Metal	1	4.0%
Stove	1	4.0%
Woodstove	1	4.0%
Fire	**3**	**12.0%**
House Fires	3	12.0%
Candle	*1*	*4.0%*
Ignitable Liquids	*1*	*4.0%*
Smoking in Bed	*1*	*4.0%*
Other	**1**	**4.0%**
Chemical	1	4.0%

Burn Injuries by Victim's Community

County	# of Burns
Barnstable	**12**
Bourne	1
Brewster	1
Dennis	1
Falmouth	3
Harwich	1
Sandwich	3
Yarmouth	2
Berkshire	**4**
Pittsfield	3
Sheffield	1
Bristol	**22**
Acushnet	2
Easton	1
Fairhaven	1
Fall River	5
Freetown	1
Mansfield	1
New Bedford	5
North Attleborough	1
Norton	1
Somerset	2
Taunton	2
Dukes	**1**
Tisbury	1
Essex	**34**
Andover	1
Beverly	2
Boxford	1
Danvers	1
Gloucester	3
Haverhill	6
Lawrence	6
Lynn	6
Methuen	1
Newburyport	2
North Andover	2
Salem	1
Saugus	2

County	# of Burns
Franklin	**4**
Greenfield	2
Montague	2
Hampden	**34**
Agawam	1
Chicopee	1
Holyoke	1
Longmeadow	2
Ludlow	2
Monson	2
Palmer	1
Southwick	1
Springfield	18
West Springfield	2
Westfield	1
Wilbraham	2
Hampshire	**5**
Amherst	1
Belchertown	1
Easthampton	1
Northampton	1
South Hadley	1
Middlesex	**50**
Ashland	1
Belmont	2
Billerica	1
Boxborough	1
Burlington	1
Cambridge	2
Chelmsford	3
Concord	1
Dracut	4
Dunstable	1
Framingham	2
Groton	1
Hudson	1
Lowell	11
Malden	1
Marlborough	3
Medford	1
Natick	1

County	# of Burns
Middlesex	**(con't)**
Newton	1
North Reading	1
Somerville	2
Waltham	1
Watertown	3
Weston	1
Winchester	1
Woburn	2
Nantucket	**0**
Norfolk	**21**
Brookline	2
Franklin	2
Holbrook	1
Medfield	2
Norfolk	1
Norwood	3
Quincy	6
Stoughton	1
Walpole	1
Westwood	1
Weymouth	3
Plymouth	**25**
Bridgewater	1
Brockton	9
Hanson	2
Hingham	2
Marshfield	2
Norwell	2
Plymouth	3
Scituate	2
Wareham	1
Whitman	1

County	# of Burns
Suffolk	**39**
Boston	36
Chelsea	2
Revere	1
Worcester	**17**
Bolton	1
Clinton	1
Fitchburg	3
Gardner	1
Harvard	1
Leominster	1
Milford	2
Oxford	1
Templeton	2
Webster	1
Westborough	1
Winchendon	1
Worcester	1
Out of State	**92**