

MOTOR VEHICLE FATALITIES

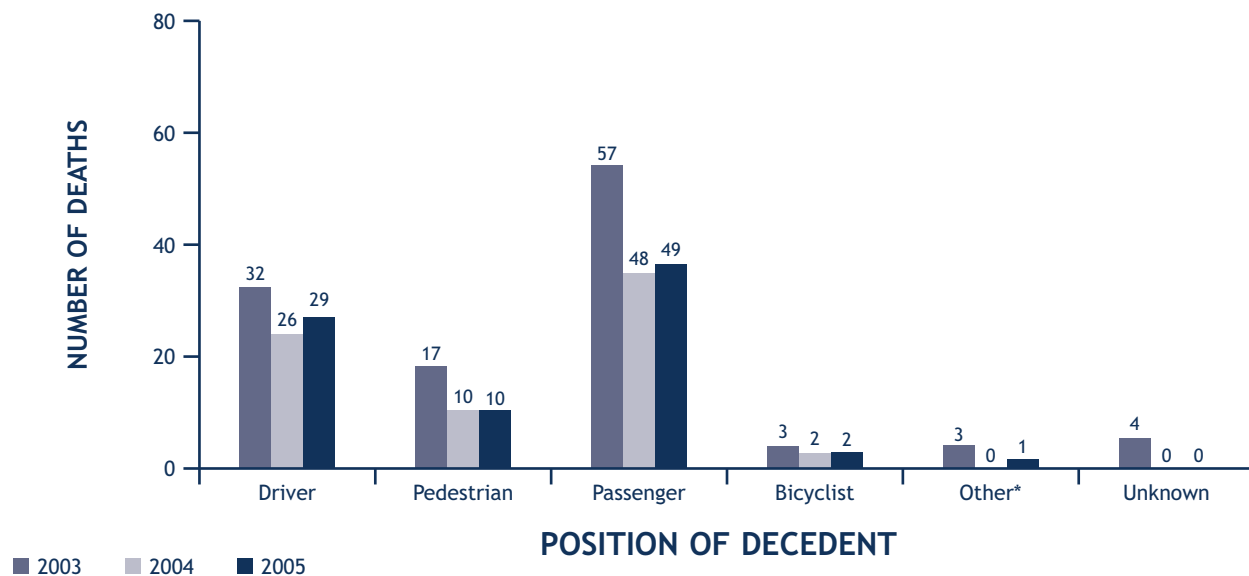
There were 137 motor vehicle fatalities among Missouri children in 2005. Of those, 94 were reviewed by CFRP panels.

In the United States, motor vehicle crashes are the leading cause of injury death for children ages 1-14, and the second leading cause of injury death for children ages 0-1. In 2005, motor vehicle crashes remained the leading cause of unintentional injury deaths among Missouri's children. Motor vehicle fatalities include drivers and passengers of motor vehicles, pedestrians who are struck by motor vehicles, bicyclists and occupants in any other form of transportation, including all-terrain vehicles. Of the **137** motor vehicle deaths among Missouri children in 2005, **125** were reported to the Child Fatality Review Program; **94** (76%) were reviewed by a local CFRP panel. (**Three** of the **94** motor vehicle fatalities were determined to be Homicides, following the review, and are discussed in that section of this report.)

MOTOR VEHICLE FATALITIES BY SEX AND RACE

SEX	2003	2004	2005	RACE	2003	2004	2005
FEMALE	60	51	43	WHITE	127	99	108
MALE	87	63	79	BLACK	19	13	13
				OTHER	1	2	1
	147	114	122		147	114	122

MOTOR VEHICLE FATALITIES BY POSITION AT TIME OF INJURY (AS REPORTED BY CFRP)



In 2005, **one** "Other" motor vehicle fatality refers to a fetus in utero. The crash caused the mother to go into labor, resulting in premature delivery.

MOTOR VEHICLE FATALITIES AS REPORTED ON CFRP DATA FORM 2

TYPE OF VEHICLE			
Car	48	All-Terrain Vehicle	4
Truck/RV/Van/SUV	24	Other Farm Vehicle	1
Motorcycle	1	Not Applicable	10
Bicycle	2	Not Answered	1

CONDITION OF ROAD	
Normal	67
Loose Gravel	2
Wet	11
Ice or Snow	2
Other	3
Unknown	5
Not Answered	1

RESTRAINT USED	
Present, Not Used	40
None in Vehicle	0
Used Correctly	16
Used Incorrectly	4
Unknown	13
Not Applicable	18

PRIMARY CAUSE OF ACCIDENT	
Speeding	21
Carelessness	17
Mechanical Failure	2
Weather	27
Driver Error	9
Other	12
Unknown	3

ALCOHOL AND/OR OTHER DRUG USE	
Decedent Impaired*	5
Driver of Decedents Vehicle Impaired	8
Driver of Other Vehicle Impaired	3
Not Applicable	56
Not Answered	19

*NOTE: In four cases, decedent was the driver of the vehicle.

HELMET USE	
Helmet Worn	1
Helmet Not Worn	8
Not Applicable	74
Not Answered	8

DRIVER AND PASSENGER FATALITIES

Representative Cases:

- **Children age 4 years and under should ride appropriately restrained in a child safety seat.**

A 9-year-old girl was riding unrestrained in the front seat of a vehicle being driven by her stepfather, who was speeding. When the traffic ahead of him stopped suddenly, the driver swerved into the on-coming lane of traffic, striking another vehicle head-on.

- **The most significant risk factors among teen drivers are inexperience, low rates of seatbelt use and alcohol.**

A 16-year-old was the driver of a motor vehicle, racing with another vehicle. He lost control of his vehicle and struck a guard rail. The vehicle rolled and the driver, who was not wearing a seatbelt, was ejected and pinned beneath his vehicle. His blood alcohol was .105. He was pronounced dead at the scene.

Of the **94** reviewed motor vehicle deaths in Missouri in 2005, **77** (85%) involved drivers and passengers. The National Center for Injury Prevention and Control lists two factors as most significant in contributing to motor vehicle-related fatalities among children: (1) unrestrained children and (2) drunk drivers. (“Unrestrained children” refers to infants and toddlers who are not riding in properly installed car seats and older children whose seatbelts are not fastened.)

The National Safe Kids Campaign reports that 40% of children, age 4 and under, ride unrestrained, placing them at twice the risk of death and injury as those riding restrained. Missouri law requires restraint for children under age 4 and allows for primary enforcement, meaning that a police officer can stop and cite the driver solely for violation of the restraint law. **Twenty-eight** of the child passenger fatalities in Missouri in 2005, were known to be riding unrestrained. The most common reasons restrained children are killed are misuse of child safety seats and premature graduation to safety belts.

Of the **94** reviewed motor vehicle fatalities, **16** involved a victim or a driver who was impaired. According to the CFRP Data Form 2’s received in 2005, **five** of these deaths involved a teen victim who was impaired. **Four** of those were drivers of a vehicle that wrecked, and the other **one** was a drunk pedestrian who stepped out in front of a moving vehicle. There were **eight** deaths where the driver of the victim’s vehicle was impaired; **seven** of those fatalities involved a teen riding with a driver who was impaired. The **three** other deaths, involved collisions with other vehicles, driven by an impaired driver.

Teenagers are three to four times more likely to be involved in a crash than the driving population at large. The highest fatality rates are found among teenage drivers. According to the National Center for Injury Prevention and Control, the most significant risk factors among teenage drivers are inexperience, low rates of seatbelt use and alcohol. Inexperienced drivers lack the perception, judgement and decision-making skills that take practice to acquire.

Missouri's graduated licensing system took effect in January 2001. In states with GDL systems, teen fatality rates have been reduced as much as 43%. It is important to note, however, that graduated licensing must be combined with education for parents and teens about risks to teenage drivers, including the dangers of underage drinking, speeding, inattention and low seatbelt use.

Seatbelts are known to reduce the risk of fatal motor vehicle injury by as much as 45%. There is a low rate of seatbelt use among teens. **Fifty-six** (62%) of the reviewed motor vehicle fatalities among children in Missouri in 2005, were teenagers age 15-17. Of those **30** (54%) were known to be unrestrained at the time of the crash; **15** were passengers and **15** were drivers.

PEDESTRIAN FATALITIES

Representative Cases:

- **Young children require constant supervision.**

A three-year-old was playing outdoors, unsupervised, when she attempted to run across the street to a neighbor's house. She was struck by a truck traveling at a high rate of speed through her subdivision. She was pronounced dead at the scene.

A two-year-old child was in the care of his father, who allowed him to play outside, unattended. The child wandered onto the road in front of the home and was struck by a passing vehicle. He was pronounced dead at the scene.

Of the **94** reviewed motor vehicle fatalities among Missouri children in 2005, **10** were pedestrians. **Three** of those were age 4 and under; **one** was between the ages of 5 and 9.

PEDESTRIAN DEATHS AMONG CHILDREN

- Children are particularly vulnerable to pedestrian death, because they are exposed to traffic threats that exceed their cognitive, developmental, behavioral, physical and sensory abilities. This is exacerbated by the fact that parents overestimate their children's pedestrian skills. Children are impulsive and have difficulty judging speed, spatial relations and distance.
- Toddlers (ages 1 and 2 years) sustain the highest number of pedestrian injuries, primarily due to their small size and limited traffic experience. More than half of all pedestrian injuries involving toddlers occur when a vehicle is backing up. Young children are at increased risk of pedestrian death and injury in driveways and other relatively protected areas.
- Children, age 5 through 9, are at the greatest risk from pedestrian death and injury. Children, ages 14 and under, are more likely to suffer pedestrian injuries in residential areas with high traffic volume, a higher number of parked vehicles on the street, higher posted speed limits, few pedestrian-control devices and few alternative play areas.

- Practical, skills-based pedestrian safety training efforts have demonstrated improvements in children's traffic behavior. Environmental modifications are effective at reducing pedestrian-motor-vehicle related incidents. (*Safe Kids*)

BICYCLE-RELATED FATALITIES

Representative Cases:

- **Children should always wear helmets when riding bicycles.**

A six-year-old child was following a truck on her bicycle, when it suddenly began backing up. The child was struck and she died of crushing head injuries.

A five-year-old was riding his bicycle on a busy street, when he was struck by a car. He was not wearing a helmet and suffered massive head injuries.

Motor vehicle fatalities among Missouri children also include **2** bicyclists who died in 2005, when they were either struck by a motor vehicle or fell. **Both** of those fatalities were reviewed by local panels. **One** of the bicycle-related fatalities was reported to be wearing a helmet.

The single most effective safety device available to reduce head injury and death from bicycle crashes is a helmet. In the event of a crash, wearing a bicycle helmet reduces the risk of serious head injury by as much as 85% and the risk for brain injury by as much as 88%. Unfortunately, national estimates on helmet usage suggest that only 25% of children, ages 5-14, wear a helmet when riding. Helmet usage is lowest among children ages 11 to 14. (*Safe Kids*) The primary strategies to increase bike helmet use include education, legislation and helmet-distribution programs. (*National Center for Injury Prevention and Control*)

FATALITIES INVOLVING ALL-TERRAIN VEHICLES

Representative Cases:

- **Children younger than 16 should not ride adult-size all-terrain vehicles.**

A 12-year-old was riding an ATV, when he attempted to cross a dry creek. The vehicle overturned and landed on top of him, crushing his head. He was not wearing a helmet.

- **Children should always wear motorcycle-style helmets when riding ATV's.**

A 17-year-old was driving an ATV on a rural road, with a 12-year-old girl as a passenger, when she lost control. The ATV overturned, throwing both girls off. The driver hit a pole and suffered a fatal head injury. Neither of the girls was wearing a helmet.

Four of the **94** motor vehicle fatalities reviewed by CFRP panels in 2005, involved all-terrain vehicles (ATV's). All-terrain vehicles are motorized cycles, with three or four balloon-style tires, designed for off-road use on a variety of terrains. Although ATV's give the appearance of stability, the three-wheeled design is especially unstable on hard surfaces. The ATV stability is further compromised by a high center of gravity, a poor or absent suspension system, and no rear-wheel differential. The danger is magnified, because these vehicles can attain substantial speeds (30-50 mph). As bigger and faster ATV's have been introduced into the market over the past decade, ATV-related deaths and injuries have increased substantially in every age group. In the United States, children account for nearly one-third of all ATV-related injuries.

Most injuries involving ATV's occur when the driver loses control and the vehicle rolls over, the driver or passenger is thrown off, or there is a collision with a fixed object. Head injuries account for most of the deaths, which are instantaneous. In 2005, **none** of the **four** Missouri children who died in ATV-related accidents, was wearing a helmet.

ATV's are inherently difficult to operate. Children under the age of 16 do not have the cognitive and physical capabilities to operate these vehicles safely. In June 2000, the American Academy of Pediatrics (AAP) issued a policy statement which included recommendations for legislation in all state prohibiting the use of two and four-wheeled off-road vehicles by children younger than 16 years, as well as a ban on the sale of new and used three-wheeled ATV's. Currently, 27 states have minimum age requirements for operation of an ATV. Missouri is one of only three states that require ATV operators to be 16 or older. In 2005, **three** of **four** ATV fatalities among Missouri children were younger than 16. (AAP, *Safe Kids, National Center for Injury Prevention and Control*)

PREVENTION RECOMMENDATIONS:

For parents:

- Children, 12 years old and younger, should always ride appropriately restrained in the back seat of all passenger vehicles, particularly vehicles with airbags.
- Children under 8 should ride in a booster seat, unless they are 80 pounds or 4'9" tall.
- Never allow children under age 12 to cross streets alone.
- Always model and teach proper pedestrian behavior.
- Children under the age of 16 should never ride or operate ATV's of any size, including youth-sized ATV's.
- Never leave children alone in a motor vehicle, even when they are asleep or restrained.

For community leaders and policy makers:

- Community leaders should encourage enforcement of existing child restraint laws.
- Missouri lawmakers should strengthen child restraint laws by mandating the following:
 - Include children age 4 through 15 in the child restraint law; thereby, making restraint use in the age group subject to primary enforcement.
 - Raise the penalty for violation of child restraint laws to at least \$100 and one driver’s license point.
 - Remove the provision of the vehicle equipment regulations that states if there are not enough safety belts for all passengers, they are not in violation for failure to use.

For professionals:

- Facilitate and implement programs that educate parents on appropriate restraint of children in motor vehicles, and provide child safety seats to those who do not have them, such as safety seat check-up events.
- Facilitate and implement programs that educate parents and children on helmet use, instructions on fitting helmets properly and events that provide helmets at little or no cost.



For Child Fatality Review Panels:

- Ensure that speed limits, and laws prohibiting driving while intoxicated, along with other traffic safety laws, are strictly enforced.

RESOURCES AND LINKS:

American Academy of Pediatrics	www.aap.org
Children’s Safety Network	http://research.marshfieldclinic.org
National Safe Kids Campaign	www.safekids.org
National Center for Injury Prevention and Control	www.cdc.gov/ncipc
Harborview Injury Prevention and Research Center	http://depts.washington.edu
National Highway Transportation Safety Administration.	www.nhtsa.dot.gov
Missouri Coalition for Roadway Safety	www.saveMolives.org
The Think First Injury Prevention Foundation	www.thinkfirst.org
Kids ‘N Cars	www.kidsncars.org

KEEPING CHILDREN SAFE IN AND AROUND MOTOR VEHICLES

Attention concerning child safety and motor vehicles has focused largely on protecting children as they ride in and on vehicles of all kinds, primarily motor vehicles on public roads. The Missouri CFRP reviews and collects data on motor vehicle fatalities among children as passengers and drivers, pedestrians and bicyclists. However, children who are unsupervised in or around motor vehicles that are not in traffic are at an increased risk for injury and death.

The Centers for Disease Control (CDC) examined injuries and fatalities among children involved in non-traffic, motor vehicle-related incidents from July 2000-June 2001, and documented 78 fatal injuries. Of the fatally injured children, most were age <4 years. The most common type of fatal incident was exposure to excessive heat inside a motor vehicle, followed by being backed over and being hurt when a child put a motor vehicle in motion.

The CDC study recommended several areas for possible prevention, including education campaigns aimed at parents and caregivers that communicate the following: (1) Ensure adequate supervision when children are playing in areas near parked motor vehicles. (2) Never leave children alone in a motor vehicle, even when they are asleep or restrained. (3) Keep motor vehicles locked in a garage or driveway and keep keys out of children's reach.

Kids 'N Cars maintains a national database to evaluate the circumstances and consequences of leaving children unattended in or around motor vehicles. Go to www.kidsncars.org for more information.

SOMETHING WE CAN DO: "NOT EVEN FOR A MINUTE" CAMPAIGN



Children's Trust Fund points out that a child left alone in an automobile is a car accident that can be prevented. For additional information or to order education materials contact CTF at 573-751-5147 or visit the web site at www.ctf4kids.org.

RESOURCES AND LINKS:

CDC. Injuries and Deaths Among Children Left Unattended in or Around Motor Vehicles-United States, July 2000-June 2001. MMWR 2002;51: No.26.

Kids 'n Cars. www.kidsncars.org



**Not even
for a minute!**

**Never leave a child
alone in a car.**

Left alone in a vehicle, even for a short time, a child is in danger of:
dehydration • injury • abduction.

For more information call the
Children's Trust Fund at 573-751-5147
or visit our Web site at www.ctf4kids.org.



UNINTENTIONAL SUFFOCATION/STRANGULATION, CHILDREN AGE 1 YEAR AND OLDER

Unintentional Suffocation/Strangulation was the cause of death of 3 Missouri children, age one year and older.

Representative Cases:

- Parents and caretakers often underestimate the degree of supervision required by young children.

A three-year-old child was eating a hotdog, when he began to choke. Attempts to remove the hotdog were unsuccessful. He quickly became unconscious and was rushed to the hospital, where he was pronounced.

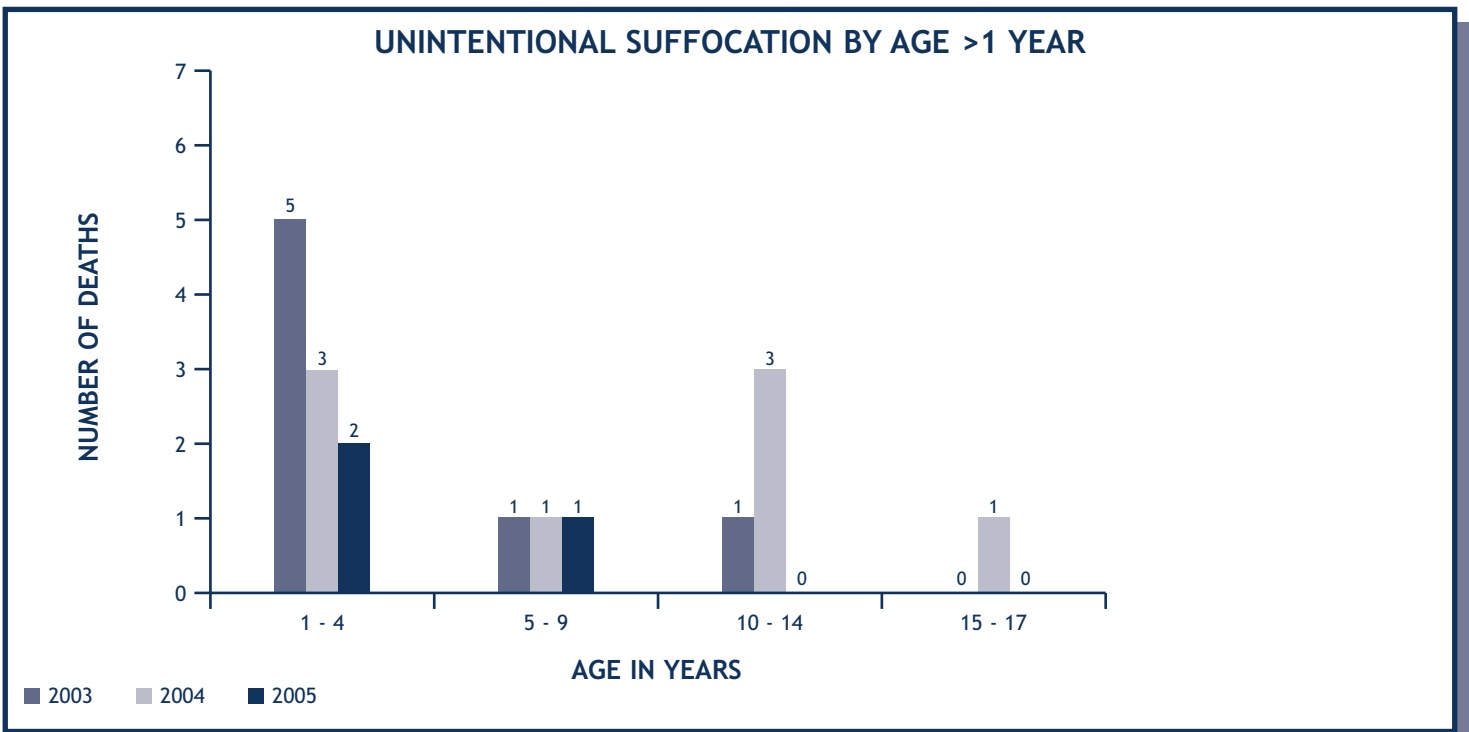
A four-year-old child with several physical disabilities was left alone briefly, playing with a balloon. He fell forward with his face resting on top of the balloon. He was unable to move from that position, because of his disability.

Note: The suffocation/strangulation deaths as reported in this section are unintentional. Suffocation/strangulation deaths may also be intentional, inflicted by others (homicide), self-inflicted (suicide) or of an undetermined manner.

AIRWAY OBSTRUCTION INJURIES AMONG YOUNG CHILDREN: CHOKING, SUFFOCATION AND STRANGULATION

The majority of airway obstruction injuries occur among infants less than one year of age. In the United States, it is estimated that as many as 900 infants, whose deaths are attributed to Sudden Infant Death Syndrome (SIDS) each year, are found in potentially suffocating environments, frequently on their stomachs, with their noses and mouths covered by soft bedding. Children placed in adult beds are at increased risk for airway obstruction injury as well. (*Safe Kids*) Sudden, unexpected deaths of infants under the age of one year, including suffocations related to unsafe sleep environments, are described and discussed in “Sudden, Unexpected Infant Deaths.”

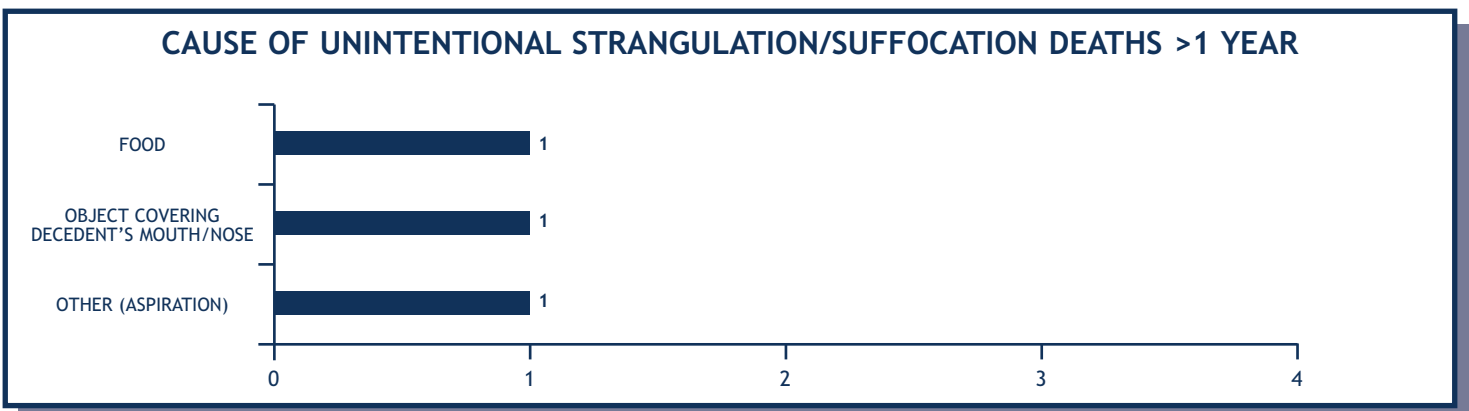
Airway obstruction injuries occur when children are unable to breathe normally, because food or objects block their internal airways (choking); materials block or cover their external airways (suffocation); or items become wrapped around their neck or exert pressure on their neck and interfere with breathing (strangulation). Young children, especially those under age three, are particularly vulnerable to airway obstruction injury and death, due to the small size of their upper airways, their relative inexperience with chewing, and their natural tendency to put objects in their mouths. Additionally, infants' inability to lift their heads or extricate themselves from tight places, puts them at greater risk. In Missouri, in 2005 **three** children over the age of one year died of unintentional airway obstruction injuries. Of those, **two** were young children under the age of four years.



UNINTENTIONAL SUFFOCATIONS BY SEX AND RACE

SEX	2003	2004	2005	RACE	2003	2004	2005
FEMALE	3	0	0	WHITE	7	7	3
MALE	4	8	3	BLACK	0	1	0
	7	8	3		7	8	3

The majority of childhood choking injuries are associated with food. Children are at risk from choking on small, round foods such as hot dogs, candies, nuts, grapes, carrots and popcorn. Children can easily choke or aspirate small objects, most often, toys, beads, balloons and coins. In the United States, cribs and play yards are involved in nearly 53% of all nursery product-related deaths among children ages 5 and under. Cribs (primarily older, used cribs) are responsible for about 26 strangulation and suffocation deaths each year. (*Safe Kids*)



Airway obstruction injuries can also result from entanglement or entrapment. Children strangle in openings big enough for parts of their bodies, but too small for their heads. These include spaces in bunk beds, cribs, playground equipment, baby strollers, carriages and high chairs. Since 1990, at least 57 children in the United States, nearly all ages 3 and under, have died due to entrapment in bunk beds. Children can also become entangled in clothing drawstrings and window covering cords, resulting in strangulation.

Young children can also become entrapped or wedged in a small space, such as between a bed or mattress and a wall. They can also become entrapped in airtight spaces, such as a cedar chest, unused refrigerator or freezer.

Fortunately, safety laws and regulations protect children from airway obstruction injury hazards. For example, the Child Safety Protection Act bans any toy intended for use by children under age 3, that may pose a choking, aspiration or ingestion hazard requires choking-hazard warning labels on packaging for these items, when intended for use by children ages 3-6 years. In 1999, the U.S. Consumer Product Safety Commission (CPSC) issued a mandatory standard for bunk beds to address entrapment hazards. The CPSC has also issued voluntary guidelines for drawstrings on children's clothing, to prevent children from strangling in the neck and waist drawstrings of upper outerwear garments, such as jackets and sweatshirts.

PREVENTION RECOMMENDATIONS:

- Remove drawstrings from children's clothing.
- Tie up or remove all cords for window coverings.

For community leaders and policy makers:

- Support legislation that requires improved product design, or removal of hazardous products from the market.

For professionals:

- Information about unintentional suffocation/strangulation hazards to young children, including unsafe sleep practices should be widely disseminated.
- Teach parents CPR and the Heimlich Maneuver for infants and young children.

For Child Fatality Review Panels:

- Report any child death that appears to involve a product hazard to Consumer Product Safety Commission. The CPSC can also be accessed for product safety research assistance; contact STAT for assistance.

RESOURCES AND LINKS:

Consumer Product Safety Commission	www.cpsc.gov
National Safe Kids Organization	www.safekids.org
American Academy of Pediatrics	www.aap.org
Missouri Children’s Trust Fund, “Safe Crib-Safe Sleep” Campaign	www.ctf4kids.org

UNINTENTIONAL FIRE/BURN FATALITIES

Unintentional Fire/Burn injuries were the cause of nine deaths of Missouri children in 2005.

Representative Cases:

- **Lighters, matches and other sources of fire should be kept locked away from children.**

A five-year-old started a fire while playing with a lighter and paper. The five-year-old and his father were able to get out of the home. However, the father was intoxicated and unaware that his two-year-old daughter was still inside the house and she died in the fire.

- **Properly installed and maintained smoke detectors are effective in preventing fatalities.**

A seven-year-old child died in a residential fire believed to be caused by careless handling of smoking materials. She was unable to escape from the second floor residence. There were no working smoke detectors.

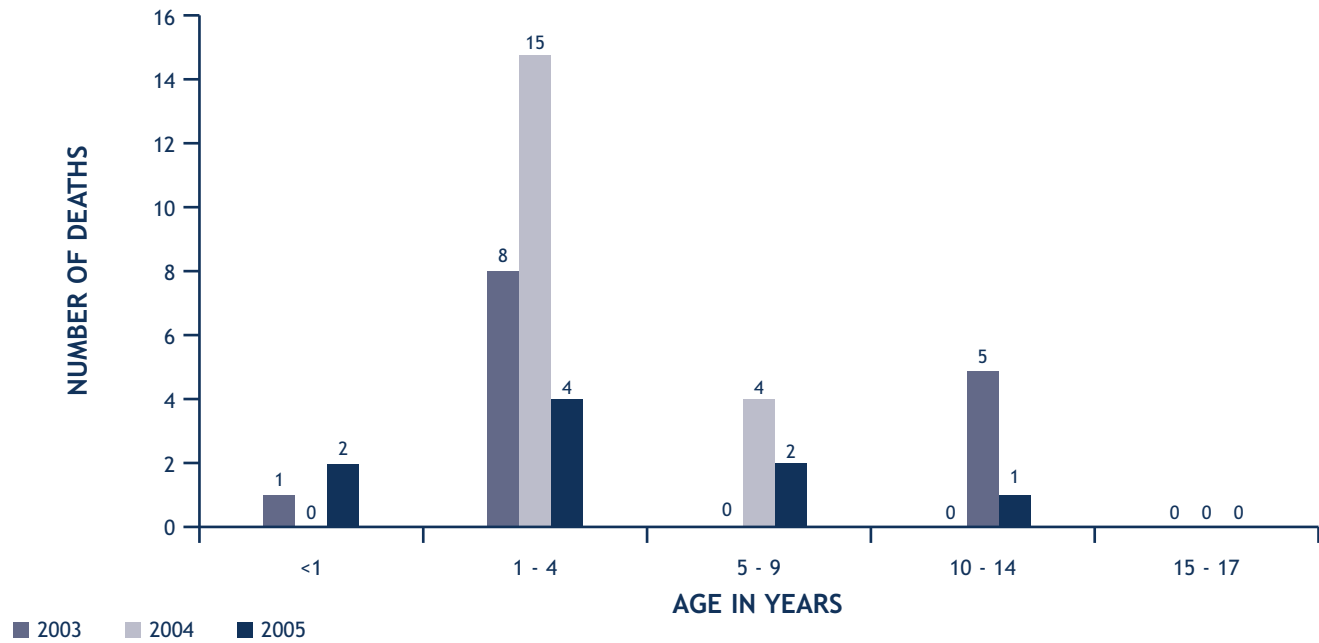
- **Children who are chronically neglected are at great risk of severe and fatal injury.**

A toddler pulled an electric skillet and its contents onto his head. He succumbed to extensive thermal burns. This family had a lengthy history of abuse and negligent treatment.

Each year in the United States, more than 600 children ages 14 and under die, and nearly 47,000 are injured, in fires. In Missouri in 2005, **nine** children died as a result of unintentional fire/burn injury; of those, **six** children were under the age of five. Fire and burn injuries are the third leading cause of unintentional injury deaths among Missouri children.

Children, especially those age 5 and under, are at the greatest risk from home fire-related death and injury, and are more than twice as likely to die in a fire, than the rest of the population. Young children have a limited ability to react promptly and properly to a fire; they are unable to act, or act irrationally. They may attempt to hide or run from adults attempting to rescue them. More than half the children under the age of 5, who die in home fires, are asleep at the time of the fire. (*Safe Kids*)

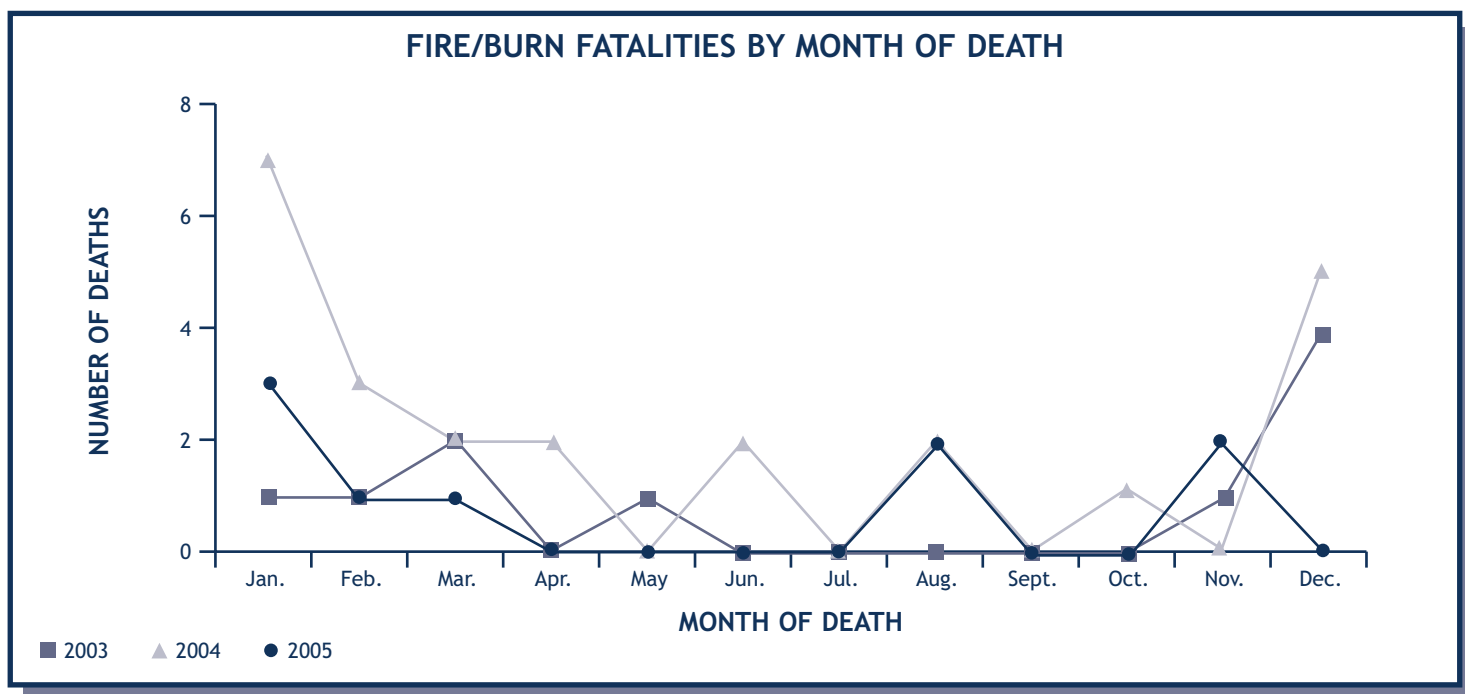
FIRE/BURN DEATHS BY AGE



FIRE/BURN DEATHS BY SEX AND RACE

SEX	2003	2004	2005	RACE	2003	2004	2005
FEMALE	4	13	4	WHITE	6	21	6
MALE	5	11	5	BLACK	3	3	3
	9	24	9		9	24	9

Residential fires and related fatalities tend to occur more often during cold-weather months, when the use of heating systems is at a peak.



FIRE/BURN DEATHS AMONG CHILDREN

- In the United States, a working smoke alarm is not present in two-thirds of the residential fires in which a child is injured or killed. Smoke detectors were reported to be present in only 4 of the 9 fatal Missouri fires reviewed by county CFRP panels in 2005, of those, only 2 were known to be in working order. Approximately 90% of homes in the U.S. have a smoke alarm; however, these alarms are not always properly maintained.
- Children from low-income families are at greater risk for fire-related death and injury, due to factors such as lack of working smoke alarms, substandard housing, use of alternative heating sources and economic constraints on providing adequate adult supervision. (*Safe Kids*)
- Children living in rural area have a dramatically higher risk of dying in a residential fire. (*United States Fire Administration*)
- Nationally, over 30% of the fires that kill young children are started by children playing with matches or lighters. These fires tend to begin in the bedroom or living room, where children are often left alone to play. (*National Center for Injury Prevention and Control*) In Missouri, in 2004, 3 children are known to have died in fires started by other children playing with matches or lighters.

JUVENILE FIRESETTING

In Missouri in 2005, **one** child was known to have started a fire in his home by playing with a lighter. The United States Fire Administration points out that events such as this are not isolated incidents and the number of fires set by children is growing. In a typical year in the United States, 300 people are killed and \$300 million in property is destroyed in fires set by children. Children themselves are usually the victims of these fires, accounting for 85 of every 100 fatalities.

It is generally recognized that the motivation for firesetting can be considered in two categories: (1) *Curiosity firesetters* are usually 2-7 year olds, whose fascination leads them to play with matches or lighters. These children do not recognize the consequences of the behavior. They usually respond to educational services, including educational programs, firehouse tours, etc. (2) *Problem firesetters* may also be very young, but generally are 5-17 years old. Their behavior may be considered pathological, a “cry for help.” These children appear to light fires because of emotional or mental disturbances ranging from mild to severe. When firesetting appears to be related to emotional problems, referrals should be made to mental health services. (*United States Fire Administration*)

Regardless of the motivation, firesetting behavior must always be taken very seriously. The United States Fire Administration recommends that parent contact their local fire department or state fire services for help. Local fire departments throughout the state are adopting various approaches to critical elements of prevention: (1) identification/referral of the firesetter, (2) evaluation, and (3) intervention.

FIRE/BURN FATALITIES AS REPORTED ON CFRP DATA FORMS

SMOKE ALARM PRESENT	
Yes	4
No	2
Unknown	2
Not Applicable	1
Not Answered	0

SMOKE ALARM IN WORKING ORDER	
Yes	2
No	0
Unknown	3
Not Applicable	3
Not Answered	1

FIRE STARTED BY	
Decedent	1
Other	0
No One	2
Unknown	3
Not Answered	3

ACTIVITY OF PERSON STARTING FIRE	
Playing	1
Smoking	1
Not Applicable	6
Not Answered	1

SOURCE OF FIRE	
Lighter	1
Cigarette	1
Combustibles	1
Faulty Wiring	3
Unknown	2
Not Answered	1

MULTIPLE FIRE DEATHS	
Yes	4
No	5

FOR A STRUCTURE FIRE, WHERE WAS THE DECEDENT FOUND?	
Hiding	1
In Bed	4
Other	2
Not Answered	2

SOMETHING WE CAN DO: FIRE PREVENTION AWARENESS DAY

When 3 children died in a house fire in St. Louis, CFRP panel members and other community leaders talked about finding a way to target that neighborhood for a fire safety campaign that would provide an appropriate prevention response to those tragic deaths. Smoke detectors, properly installed and maintained, have proven extremely effective in preventing fatalities. For the last 10 years, volunteers have brought “Fire Prevention Awareness Day” to high-risk neighborhoods throughout the region. Working from a staging area where families can gather for food, fun and prevention education, firefighters and volunteers go door to door, installing smoke detectors for fresh batteries and providing fire safety information. Media attention for these events helps spread the prevention message.

PREVENTION RECOMMENDATIONS:

For parents:

- Young children require vigilant supervision.
- Keep matches, gasoline, lighters and all other flammable materials locked away and out of children’s reach.
- Install smoke alarms on every level and in every sleeping area. Test them once a month. Replace batteries at least once a year.
- Plan and practice several fire escape routes from each room of the home and identify an outside meeting place. Practicing an escape plan may help children who become frightened and confused in a fire, to escape to safety.

For community leaders and policy makers:

- Enact laws that require smoke detectors in new and existing housing, and making landlords responsible for ensuring that rental properties have working smoke detectors.
- Enforce building codes and conduct inspections.

For professionals:

- Smoke detector giveaway programs have proven useful when high-risk areas are targeted. Implement such a program in your community.
- Implement a multi-faceted community campaign to prevent burn injuries. Target a well-defined population with a very specific message.

For Child Fatality Review Panels:

- When reviewing a child death that is the result of a residential fire, determine if the local building code requires smoke detectors in residences, and if a working smoke detector was present in the home. Use that information to develop an action plan, such as working to change the code or pursuing prosecution of a negligent landlord. Special attention should be paid to the issue of adult supervision, when investigating deaths of young children in house fires.

RESOURCES AND LINKS:

Missouri Division of Fire Safety	www.dfs.dps.mo.gov
United States Fire Administration	www.usfa.fema.gov
National Safe Kids Campaign	www.safekids.org
Harborview Injury Prevention and Research Center	depts.washington.edu/hiprc

UNINTENTIONAL DROWNINGS

In 2005, 18 children drowned in Missouri.

Representative Cases:

- **Personal flotation devices should be worn at all times in and around open water.**

A two-year-old child was playing in a pond, wearing a life jacket, with several children and adults. He was taken out of the water and the vest removed for a picnic. After the picnic, the child was playing near the pond. A short time later, the other children began to notice that he was gone. He was eventually found in the pond.

- **Infants and young children require constant supervision while in a bathtub.**

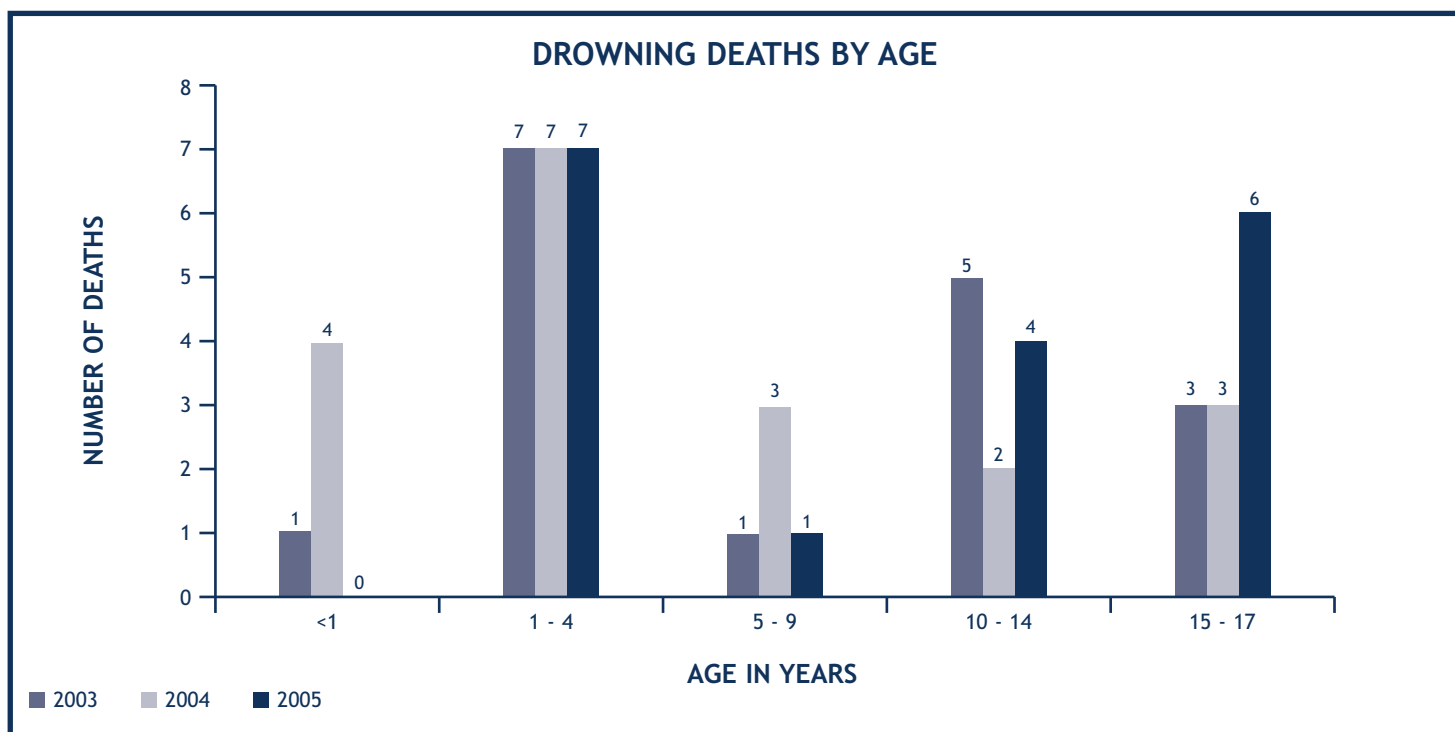
An eight-month-old infant was placed in a bathtub with about two inches of water. The mother left him playing with tub toys, while she went to check on another child. When she came back, the baby was face down in the water.

- **Young children require vigilant adult supervision when outdoors near bodies of water, such as pools, creeks and streams.**

A two-year-old child was playing in the water beside a creek, while other children were playing nearby. The mother was busy talking with other adults and she did not have a clear view of the child. When one of the other children reported that the two-year-old was missing, a frantic search began and the child was found in the water.

A ten-year-old was walking along the bank of a creek with two other children, whose father was watching them. The child slid off a steep bank and fell into the water. Several minutes passed before he was brought to the surface. Efforts to resuscitate him were not successful.

In the United States, drowning is the second leading cause of unintentional injury-related deaths among children, taking more than 2,000 young lives each year. In Missouri, drowning ranked fourth as a leading cause of injury death. Young children, age 4 and under, have the highest drowning death rate (*Safe Kids*). Of the **18** Missouri children who drowned in 2005, **7** (39%) were age 4 and under.



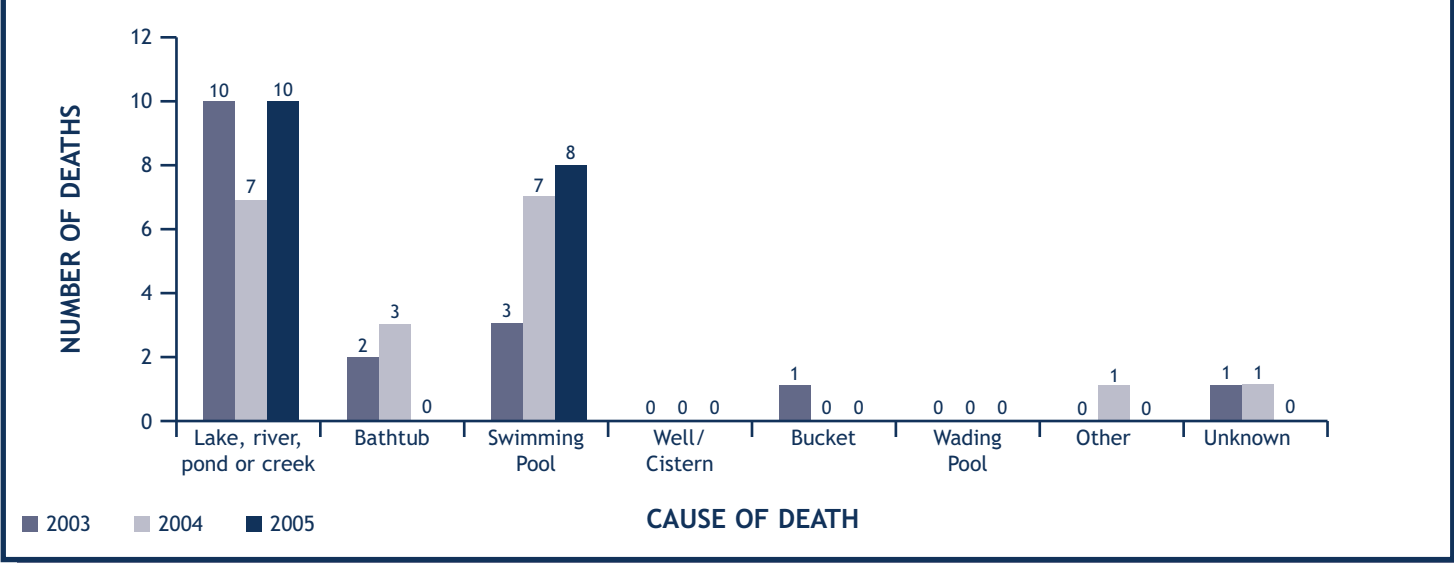
DROWNINGS BY SEX AND RACE

SEX	2003	2004	2005	RACE	2003	2004	2005
FEMALE	4	10	4	WHITE	16	16	16
MALE	13	9	14	BLACK	1	3	2
	17	19	18		17	19	18

Drownings among infants under age 1, typically occur in residential bathtubs. Most drownings among children 1 through 4 years old, occur in residential swimming pools. However, children can drown in as little as one inch of water and, therefore, are at risk of drowning in wading pools, buckets, toilets and hot tubs. Childhood drownings can happen in a matter of seconds and typically occur when a child is left unattended, or during a brief lapse in supervision. Contrary to what many people believe, drowning usually occurs quickly and silently. The scenario that a drowning person will make lots of noise, while thrashing around in the water and resurface several times before actually drowning, is pervasive, but entirely false. (*Safe Kids*)

Older children are more likely to drown in open water sites such as creeks, lakes and rivers. Of the **18** Missouri children who drowned in 2005, **8** (44%) occurred in swimming pools, **10** (56%) occurred in open water sites.

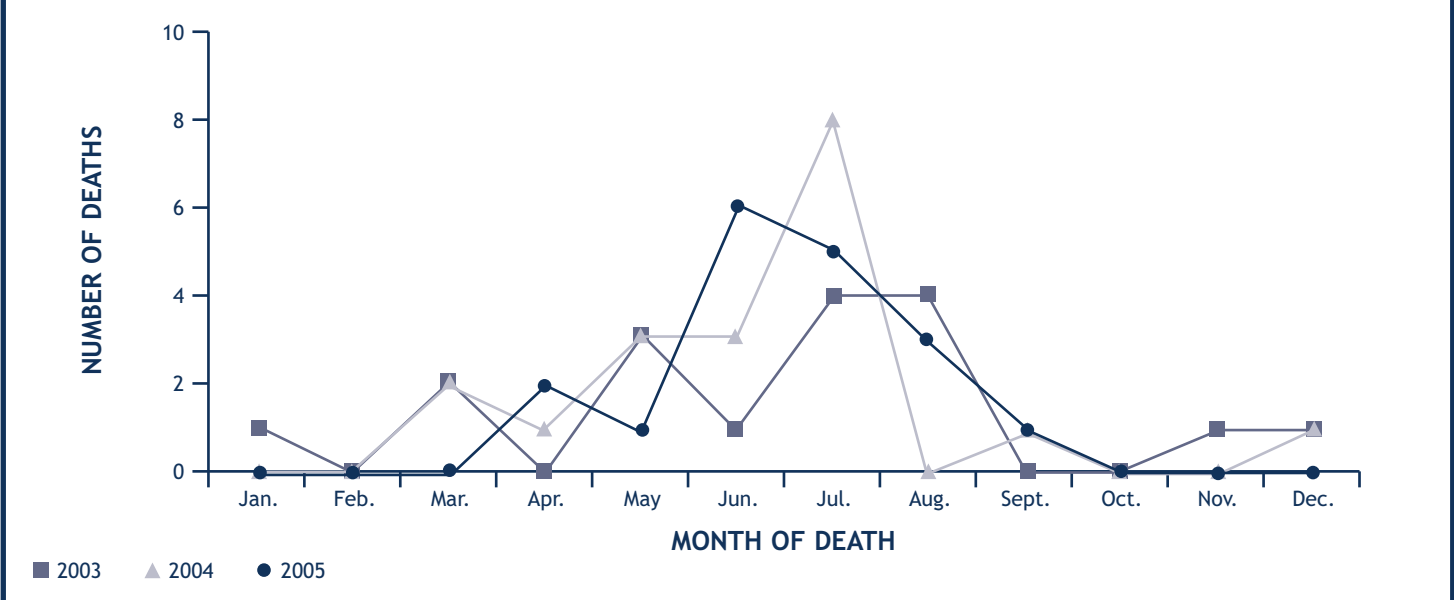
LOCATION OF DROWNINGS



DROWNING DEATHS AMONG CHILDREN

- Supervision of children in and around water is critical. Of the 18 drowning fatalities in 2005, in which supervision of the child victim was a consideration, panels found that 8 (44%) had entered the water unattended.
- Use of a personal flotation device is well established as an effective means to prevent drowning deaths. **None** of the Missouri children who drowned in 2005, were wearing a personal flotation device.
- The warm-weather months of June, July, August and September are peak months for drowning, coinciding with increased activity in swimming pools and open water sites.

DROWNING DEATHS BY MONTH OF DEATH



PREVENTION RECOMMENDATIONS:*For parents:*

- Never leave a child unsupervised in or around water in the home or outdoors, even for a moment.
- For families with residential swimming pools: Install four-sided pool fencing with self-closing and self-latching gates. The fence should be at least four feet tall and completely separate the pool from the house and play area of the yard.
- Ensure that children always wear U.S. Coast Guard-approved personal flotation devices near open water or when participating in water sports.
- Learn CPR.

For community leaders and policy makers:

- Enact and enforce pool fencing ordinances.
- Enforce existing regulations regarding the use of personal flotation devices when boating.

For professionals:

- Parents, as well as children, should receive water safety education. This should include discussion of water hazards to children (including buckets) and the importance of vigilant supervision.
- Facilitate CPR training for parents of small children.

For Child Fatality Review Panels:

- Promote public education about drowning hazards to children and strategies to prevent drowning.

RESOURCES AND LINKS:

National Safe Kids Campaign	www.safekids.org
National Center for Injury Prevention	www.cdc.gov/ncipc
Harborview Injury Prevention and Research Center	http://depts.washington.edu/hiprc
Consumer Product Safety Commission	www.cpsc.org
Red Cross	www.redcross.org
The United States Lifesaving Association (USLA)	www.usla.org