



Texas State Child Fatality Review Team Committee Position Statement: Water Safety for Children

The State Child Fatality Review Team Committee (SCFRT) works closely with local Child Fatality Review Teams (CFRT) to promote public awareness to reduce the number of preventable child deaths.

Drowning is a major cause of injury death for all ages. In most countries around the world, drowning ranks among the top three causes of death from unintentional injury, with the rates highest among children less than five years of age¹. According to the World Health Organization's most recent World Report on Child Injury Prevention, approximately 28 percent of all unintentional injury deaths among children are due to drowning². In the U.S., drowning is the second-leading cause of injury death for children, according to a report from the Centers for Disease Control (CDC).

Drowning is the second leading cause of unintentional injury-related death among Texas children. Each year, up to 100 children die from drowning in Texas and an estimated four times that number receive emergency department care for nonfatal submersion injuries. Children ages one to four years have the highest drowning mortality rates and account for 45 percent of all child drowning deaths. While child drowning mortality decreased by almost half during the 1990s, rates for most age groups have remained relatively unchanged since 2000.

The dangers of drowning reflect the culture and setting in which the event occurs. Young children are at high risk for drowning when they live and play around water. Infants are most at risk of drowning when left unsupervised for even seconds in the bathtub. The greatest risk of drowning for toddlers and young children are residential pools, hot tubs, or water storage areas such as wells, cisterns and stock tanks. Young teens most often drown during water recreation such as swimming and boating.

Observational data shows that children can drown in unusual conditions.

- In as little as one inch of water.
- Very quickly and silently.
- Lose consciousness in two minutes after submersion, with irreversible brain damage occurring within four to six minutes.

Recommendations to the State of Texas, the Texas Legislature, Parents, and Healthcare Providers

The State Child Fatality Review Team Committee joins the National Drowning Prevention Alliance in recognizing that multiple prevention strategies and devices should be used constantly and simultaneously to reduce childhood drowning. Multiple layers of protection need to be used to reduce child drowning deaths. Along with other leaders in injury prevention such as the Texas Parks and Wildlife Department, the U.S. Coast Guard (USCG),

¹ World Health Organization/UNICEF: World report on child injury prevention/ edited by Margie Peden ... [et al] 2008. Available from URL: http://whqlibdoc.who.int/publications/2008/9789241563574_eng.pdf

² World Health Organization/UNICEF: World report on child injury prevention/ edited by Margie Peden ... [et al] 2008. Available from URL: http://whqlibdoc.who.int/publications/2008/9789241563574_eng.pdf

the Army Corps of Engineers (USACE), the American Red Cross, the Y.M.C.A., the American Academy of Pediatrics (AAP), the CDC Center for Unintentional Injuries and Safe Kids Worldwide, the State Child Fatality Review Team Committee makes the following recommendations.

ENVIRONMENT

Drowning occurs in a variety of environments.

POOLS, HOT TUBS AND SPAS

Home swimming pools are the most common site for drowning to occur for a child between ages one to four years. Most of the victims were being supervised by one or both parents when the drowning occurred. Toddlers are inquisitive and are attracted to water. They move quickly and unpredictably, making swimming pools particularly hazardous for households with young children. Properly installed four-sided isolation fencing that prevents access to pools would reduce 50 to 90 percent of childhood drowning. However, there is no substitute for “eyes- and hands-on” supervision.

Recommendations

Enticement Removal

- Remove toys from in and around the pool when not in use.

Barriers

- Properly install and maintain an isolation fence at least four feet high that surrounds all sides of the pool along with a self-closing and self-latching gate.
- Use a gate latch that can be locked with a key and remember to lock the gate when the pool is not in use.
- Place alarms on doors and windows with access to the pool area.
- Keep a shepherd’s hook, life ring and telephone by the pool for emergencies.

Entrapment Protection

- Properly install and maintain anti-entrapment drain covers.
- Equip pool and spa pumps with a safety vacuum release system (SVRS), an emergency sensor that shuts off the switch automatically if the drain is blocked.
- Replace drain covers immediately if they are broken or damaged.

OPEN BODIES OF WATER

Natural and man-made, which includes lakes, rivers, ponds, and bayous. There is no substitute for “eyes-on” close supervision of children near any open body of water. For boating-related injuries and deaths, almost three-fourths of all fatal boating accident victims drown, and of those, 84 percent are not reported as wearing a life jacket. The majority of boating fatalities occurred on boats where the operator had not received safety instructions. In 2009, the Coast Guard counted 4,730 accidents that involved 736 deaths, 3,358 injuries and approximately 36 million dollars of damage to property as a result of recreational boating accidents. Eighteen children under age thirteen lost their lives while boating. Fifty percent of the children who died in 2009 in boating accidents died from drowning. Forty-four percent of those who drowned were wearing a life jacket as required to do so by state law.³

³U.S. Coast Guard, Department of Homeland Security (US). Boating Statistics Report [online] 2009. Available from URL: http://www.uscgboating.org/assets/1/workflow_staging/Publications/394.PDF

Recommendations

Boating and Personal Watercrafts (PWC)

- Always have adults and children wear a life jacket (also called “personal flotation device” or PFD) approved by the U.S. Coast Guard while on a boat or PWC. The life jacket should fit snugly and not allow the child’s chin or ears to slip through the neck opening.
- Do not depend on floating or air-filled toys. Air-filled swimming aids, such as “water wings” and inner tubes, are NOT safety devices and should never be used as a substitute for a PFD or proper supervision.
- Children younger than 16 years of age should not operate a boat or PWC.
- Adults and adolescents (16 years or older) should not operate a boat or PWC without taking a boating course and safety education.
- Never dive in lakes and rivers. Open water situations where water depth is unknown and conditions are constantly changing with floating or underwater debris that can be very dangerous. You never know what might lie unseen below open waters, so diving should only be done in the deep end of a swimming pool.
- Learn to swim well and practice floating. Besides wearing a life jacket, learning to swim well is one of the best defenses against drowning. Also, teach loved ones to swim. Practice simple survival floating skills. Knowing how to relax and float when exhausted can save your life.
- Swimming in natural or open waters is not the same as swimming in a pool. The USA Swimming Foundation works with local partners to offer free swimming lessons.⁴
- Never drink alcoholic beverages or use any drugs while operating a boat or PWC.
- Always have a supervisor face the rear of a boat or PWC when there is a person being towed while skiing, knee boarding or in a tube.
- Participate in a vessel safety check program every year. The U.S. Coast Guard or U.S. Power Squadrons offer free safety checks.⁵

Carbon Monoxide Poisoning

Each year boaters are injured or killed from carbon monoxide poisoning. Many such incidents occur within the cabin or other enclosed areas without sufficient ventilation. Carbon monoxide-related injuries and/or drowning can also occur near the rear deck and swimming platform. Prolonged exposure to low doses or short exposure to high concentrations of carbon monoxide can lead to death.

Recommendations

- Install a carbon monoxide detector in the enclosed areas of your motorboat.
- Avoid motor exhaust vent areas.
- Do not swim near or under the back deck or swim platform of a boat or PWC when the motor or generator is operating.
- Do not “break surf” (holding onto the swim platform while towed by a boat).
- Do not confuse carbon monoxide poisoning with sea sickness or intoxication if someone onboard complains of headaches, dizziness, nausea, confusion and fatigue.

⁴USA Swimming Foundation Splash Grant Recipients, available online at <http://www.usaswimming.org/ViewNewsArticle.aspx?TabId=0&Itemid=4278&mid=8712>.

⁵Boating Safety Resource Center, U.S. Coast Guard, available online at www.uscgboating.org.

HOMES

Many household areas and items can cause water-related fatalities. Children can drown in only a few inches of water and should be supervised closely in and around areas of the home where water can accumulate. Both the CDC and the AAP identify the following as potential sites where young children can be injured by accumulated water.

- Bathtubs
- Buckets/pails
- Ice chests
- Toilets
- Fountains

Recommendations

- Always set water safety rules.
- Never leave a child unattended, alone or cared for by another child in a bathtub.
- Empty all buckets/pails, ice chests and bathtubs completely after they are used.
- Keep bathroom and laundry room doors closed. Install door knob covers and/or hook-and-eye latches to keep closed doors secured.
- Keep toilet seats and covers down. Install toilet seat locks.
- Keep your family safe from hot water burns. Set water heater thermostats to 120° F.
- Showers are preferred for bathing when children and adolescents have a seizure disorder.
- Parents and caregivers should learn cardiopulmonary resuscitation (CPR) to provide immediate resuscitation if needed for drowning or other water-related injury.

SUPERVISION

Parents, guardians and caregivers need to understand the dangers of drowning and know the proper steps to take to protect children. Children are especially vulnerable to water hazards. Never leave a young child unsupervised in or around water, even for a moment.

Recommendations

- Never allow children to swim without adult supervision. An adult should be present in the water with children younger than five years of age.
- Always designate a responsible adult to serve as the "water watcher," a supervisor whose sole responsibility is to constantly observe children in or near the water.
- Supervisors should maintain continuous visual and auditory contact with children in or near the water, and should stay in close proximity (waterside) so that they can effectively intervene if an emergency should arise.
- Supervisors should not engage in distracting behaviors such as talking on the phone, cooking or reading.
- Supervisors should keep children who cannot swim within arm's reach at all times.
- Supervisors should learn infant and child CPR and rescue safety tips.
- Teach children not to dive into unknown water. Check for depth and obstructions before diving and then go into the water feet-first.
- While there is no specific recommended ratio of supervisors to child swimmers, the number of supervisors should increase when many children are swimming, when younger or inexperienced swimmers are present, or when the swimming area is large.
- Instruct babysitters about potential pool hazards and emphasize the need for constant supervision.

EDUCATION

Over the years, decreased drowning rates can be attributed to many factors. Injury prevention initiatives raise the awareness of water safety as an important social issue. The delivery of targeted educational and public outreach initiatives has also improved with advances in technology to reach more families and children. Yet, far too many children continue to lose their lives in drowning situations that are frequently preventable circumstances.

Swimming Instruction

Children and adolescents should learn how to swim and receive instruction from a certified instructor. However, the SCFRT, along with other safety advocates, does not recommend swimming and/or other aquatic programs as the only methods to decrease or prevent drowning and other water-related injuries. The AAP continues to support swimming lessons for children four years old and older without physical or developmental disabilities. The decision to enroll a one to four year-old child in swimming lessons should be made by the parent and based on the child's developmental readiness. Swim programs should never be seen as "drown-proofing" a child of any age.⁶

Swimming Rules

Educate children about the rules of water safety such as swimming with a buddy and always having an adult present. Instruct children how to recognize if someone is in trouble in the water and to call for help and throw something that floats to the victim. A child should never enter the water to try to save someone.

Recommendations

- **Always swim with a buddy.** It is important to remind children that it is dangerous to swim alone and without adult supervision.
- **No running, no pushing.** Remind children how to behave in and around water.
- **STOP, LOOK, LISTEN.** Children must learn to do this when the lifeguard blows the whistle. This explains the importance of the lifeguard and what they should do.
- **Learn to blow bubbles when under water.** Many children are unfamiliar with water and may panic if water is over their heads. This teaches children to stay calm and to blow bubbles out when underwater.
- **Put feet down/stand up when in trouble.** Children may lose their sense of spatial awareness. This teaches children to put their feet down and helps to keep their head above water.

Along with the above recommendations, parents often ask about water safety for children with disabilities or special needs. Children with disabilities are at increased risk for injuries, including drowning. It is important to know that local communities can provide water skills and safety programs that teach children with disabilities to be safe and have fun in and around the water.

Be sure to connect with qualified aquatic facilities certified to instruct special needs children and families.

⁶Summer Safety Tips, American Academy of Pediatrics, available online at <http://www.healthychildren.org/english/news/pages/summer-safety-tips-sun-and-water-safety.aspx>

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Drowning Prevention Online Resources

General Resources

- [American Academy of Pediatrics](#)
- [American Red Cross - King and Kitsap County](#)
- [American Red Cross - Swimming and Lifeguarding](#)
- [Centers for Disease Control National Center for Injury Prevention and Control - Drowning Prevention Fact Sheet](#)
- [Clear Danger: A National Study of Childhood Drowning and Related Attitudes and Behaviors](#)
- [National Center for Injury Prevention and Control \(Centers for Disease Control and Prevention\)](#)
- [National Drowning Prevention Alliance](#)
- [Harborview Injury Prevention and Research Center](#)
- [North American 2004 Boating Campaign Information](#)
- [Public Health Seattle & King County](#)
- [SAFE KIDS](#)
- [SAFE KIDS - Water Safety Tips](#)
- [SAFE KIDS - Drowning Injury Facts](#)
- [Washington State Drowning Prevention Campaign](#)
- [World Congress on Drowning Proceedings](#)
- [The Alliance for Safe Children](#)
- [World Health Organization](#)

Around The Home (Pools and Spas)

- [Above Ground Pools and Spas \(PDF\)](#)
- [Association of Pool and Spa Professionals](#)
- [Consumer Product Safety Commission - Pool and Spa Safety](#)
- [Consumer Product Safety Commission - Prevent Child In-Home Drowning Deaths](#)
- [Consumer Product Safety Commission - Preventing Child Drownings](#)
- [Drowning Facts and Prevention Tips for Homeowners \(PDF\)](#)
- [Independent Pool & Spa Service Association - Texas](#)
- [Pool Safety Council](#)
- [Pool Safely](#)
- [Private Residential Pools and Spas-Tips for Homeowners \(PDF\)](#)

Open Water (Playing or Swimming)

- [Aquatics International](#)
- [International Life Saving Federation](#)
- [Rip Currents Awareness](#)
- [Farm Pond Safety](#)
- [Infant Swimming Resource](#)

- [National Aquatic Safety Company](#)
- [National Children's Center - Rural Youth Drowning: Fact Sheet](#)
- [Royal Life Saving Society](#)
- [Swim For Life](#)
- [U.S. Army Corps of Engineers - National Water Safety Program](#)
- [Washington State Department of Health - Water Safety Fact Sheet](#)
- [USA Swimming](#)

Boating

- [American Canoe Association](#)
- [BoatU.S.](#)
- [Canadian Safe Boating Council](#)
- [National Boating Federation](#)
- [National Safe Boating Council](#)
- [National Association of State Boating Law Administration](#)
- [National Water safety Congress](#)
- [Personal Flotation device Manufacturers Association](#)
- [U.S. Coast Guard - Office of Boating Safety](#)
- [United States Swim School Association](#)

The SCFRT Position Statement on Water Safety for Children is a product of the SCFRT Workgroup on Water Safety (Dr. Kim Cheung, Dr. Juan Parra, John Hellsten, PhD, Kristine Brown and Dr. Eric Levy). The Position Paper on Water Safety for Children will be reviewed annually and updated as new validated information indicates. July 2009. Reviewed and updated by Dr. Kim Cheung and Kristine Brown and approved, August 2012.