



Aquatic Safety for Children

By Ben Rayner

Here is a sobering thought for parents; where do you think your child is safer? At a home where there is a pool or hot tub, or where there is a loaded firearm? Most parents would probably choose the former, feeling that a firearm is far more likely to kill or maim their child. However, statistics prove that a child is **TEN TIMES** more likely to drown in a home pool or hot tub than to be accidentally shot with a firearm. With that fact in mind here are some ways you can prevent drownings in your home or anywhere children come into contact with water. It takes only inches of water to drown a human. Children, especially infants, drown in five gallon buckets with very little water in them.

Drowning is the second leading cause of injury-related death for children fourteen years of age and younger. Drowning is also a primary cause of accidental death for individuals between the ages of 15 and 25, especially males. In the US, a child is **TEN** times more likely to drown in a backyard pool or hot tub than to be shot accidentally with a gun. (Source CDC & National Safety Council 2001) Roughly nine people a day drown in the US. Every year, roughly 1.2 million people drown world wide. (Source CDC). According to national statistics, the consequences of near-drowning are devastating. As many as twenty percent of near-drowning survivors suffer severe and permanent neurological disability. The treatments also can take a tremendous financial toll. Typical medical costs for a near-drowning victim can range from \$75,000-\$180,000 for a year long care. An incident involving brain injury can be upwards of \$4.5 million. (Wintemute GJ. Childhood drowning and near-drowning in the United States. Amer J Dis Chilc 1990; 144:663-669. The Committee on Injury and Poison Prevention. Physician's Resource Guide for Water Safety Education. American Academy of Pediatrics, 1994 June.)

Though pool design and construction have been a determining factor in many home drowning incidents, recent improvements and legislation have curbed these as causes. The number one cause of home drowning continues to be *simple inattention* by parents or supervising adults. It is important to note that drowning most often occurs without warning, splashing, or yelling by the victim,

especially children. Only brief moments of inattention or lack of supervision lead to drowning tragedies.

Case Studies

Case #1- In 1978, in California a 13 year old babysitter charged with supervising two small children ages 1 and 2 suffered an intestinal illness and rushed to the bathroom. When she returned just minutes later, the children had opened a sliding glass door to the pool area and were face down in the water. Both drowned, but were revived by emergency personnel. The female child died and the male child survived but with profound brain damage.

Case #2- In 1989 while on vacation in the Caribbean, Stew Leonard, owner of the popular grocery chain, and his family were swimming at their hotel pool. According to Leonard, on a bright sunny day, in full view of numerous adults, his 21 month old son fell into the pool and drowned without anyone noticing. This tragedy is a prime example of how quickly and simply a drowning occurs. (Leonard and his wife have been drowning prevention activists since this tragedy.)

Drowning Prevention Equipment

Your pool or hot tub is only as safe as its weakest link. Make sure every aspect of your safety equipment and plan is implemented according to its design and is in proper working order.

Fencing: Proper fencing is the law in the US. Make sure that fencing, especially on a residence that has an existing pool, is up to code and functioning correctly. Hot tubs have less requirements and state codes, but still need to have proper barriers and/or locks. A fence or lock is only safe if it is working properly. Broken mechanisms are a hidden danger and a tragedy waiting to happen.

Alarms (Door & Aquatic): An alarm on any door leading from the residence into or onto the pool area should have an alarm. A surface disruption alarm should also be installed in or on the water. These devices are essential if a pool will be utilized with children present.

Pool Covers: Many pool covers are designed to prevent accidental falls into the water, but not all. If using a pool cover for safety, make sure it is designed for this purpose. Pool covers designed for thermal or maintenance protection do not

provide protection from drowning and they can actually be more hazardous to individuals who have fallen into the water.

Pool Nets: Recent safety innovations include pool nets, which are specifically designed to prevent drowning by keeping victims clear of the water surface. They are easily installed and removed and are specifically intended for safety purposes only.

Cameras: Cameras are an excellent addition to a pool safety plan, but cannot be relied on for primary safety for the home pool. They should be used as an enhancement system for home/public pool and hot tub safety. Inattention with a camera system is just as dangerous as inattention without it.

Hot Tub Safety

Temperature: Though not often associated with drowning, the temperature of a hot tub is often too high for small children. Read and follow manufacturer recommendations for your brand and style of hot tub.

Covers: Every hot tub should come with a securely locking cover. Make sure your cover functions properly and most importantly is in place whenever the tub is not in use. As with any other safety device, if it is not being installed or used, it is useless as a safety mechanism.

Drowning Prevention Skills

Supervision: The leading cause of drowning in children is lack of adult supervision. Parents and caretakers cannot be “too safe” when it comes to this practice. Children must be under constant watch by an adult that is physically and mentally equipped to deal with emergencies and capable of a rapid response.

Pool Rules: Create, implement, and adhere to a set of safety rules for your pool. These can vary depending on the size and shape of your pool and whether you have a diving board. Once set, the pool rules should consistently be followed by any person using your pool or hot tub.

Swimming Lessons: Teaching young children to swim is an essential part of any home water safety plan, but as with cameras, it cannot be relied on as a primary focus of drowning prevention. Many adults seek to “drown proof” children with swimming lessons. This is not possible. Though swimming skills can be essential to overall safety and recommended for any child, it can also lead to a

false sense of security for parents. Teach your children to swim, but do not rely on that skill alone to prevent water-based emergencies.

Emergency Drills: Be certain that any child using your pool, even a one time visiting guest(s) or neighbor, know where safety devices are and know the pool rules. Is the 13 year old babysitter physically able to pull a child, especially a panicked or incapacitated child, from your home pool or hot tub? Can a grandparent charged with watching a child for a few short hours, do the same?

Unfortunately, there are numerous cases of home pool drowning where the supervising adult did not know how to swim and stood by helplessly as children needlessly drowned.

Flotation devices: There is a significant distinction between life vests/preservers and floatation devices. Make sure you know what the difference is. Flotation devices are toys and though they can be effectively implemented in emergency situations they should not be used as the primary safety device. Supervising adults should be certain that children are wearing life vests at all times and that they are donned correctly. An improperly worn life vest can become a hazard. Even with a life vest on, it is possible to drown. Vests can be an essential component of water safety, but as with other devices, life vests cannot be relied on to “drown-proof” individuals of any age.

Diving Boards: Traditionally diving boards have been a cause of injury and drowning in home pools. Faulty design led to neck and back trauma and subsequent drowning. Recent changes to codes and regulations for diving boards have lessened the danger, but these devices continue to be a hazard, especially for teenaged swimmers. It is recommended that homeowners DO NOT include a diving board in their pool design and to remove an existing board if purchasing a home with a pool.

Boating and General Water Safety

This topic is a course of its own. Anyone who owns a boat should be properly licensed and take a specific water safety course. However, whenever on a boat, dock, or otherwise on the water individuals, no matter what age, should be in properly fitting life vests. If you are on a vessel, life vests/jackets should be worn at all times, especially for children. If you are on a vessel, of any size, that does not have properly fitting vests for all individuals-**do not board the craft**. If you are invited out for a day of fun on the water with a neighbor or relative and vests are not available for your children, **do not board the vessel**. Many marine drownings occur at the dock. Do not be lulled into a false sense of security because the vessel you are on is docked. Slip and fall accidents, where a victim ends up in the water account for a majority of water related deaths. Though

marinas have begun to head the call for safety ladders and accessible egress points for their docks, most still have not implemented these designs. No matter your fitness level, a victim may not be able to pull themselves back up onto a dock after falling in the water. Where a life vest at all times when you and your family are on the water-this includes the dock.

Please tour our site for course listings. SSUSA offers several water safety classes, **Open Water** and **Coastal Water**, which are specifically designed to cater to boaters and ocean going navigators. These courses are designed to enhance the chances of survival in water emergencies. There is also a babysitter course (**BLAST**) offered for those ages 11 that provides training for all aspects of child care.