Unintentional Drowning: Fact Sheet

Overview
Every day, about ten people die from unintentional drowning. Of these, two are children aged 14 or younger. Drowning is the sixth leading cause of unintentional injury death for people of all ages, and the second leading cause of death for children ages 1 to 14 years.

How big is the problem?

- In 2007, there were 3,443 fatal unintentional drowning (non-boating related) in the United States, averaging ten deaths per day. An additional 496 people died from drowning in boating-related incidents.
- More than one in five people who die from drowning are children 14 and younger. For every child who dies from drowning, another four received emergency department care for nonfatal submersion injuries.
- More than 55% of drowning victims treated in emergency departments require hospitalization or transfer for higher levels of care (compared to a hospitalization rate of 3-5% for all unintentional injuries). These injuries can be severe.
- Nonfatal drowning can cause brain damage that may result in long-term disabilities including memory problems, learning disabilities, and permanent loss of basic functioning (e.g., permanent vegetative state).

Who is most at risk?

- **Males:** Nearly 80% of people who die from drowning are male.
- **Children:** Children ages 1 to 4 have the highest drowning rates. In 2007, among children 1 to 4 years old who died from an unintentional injury, almost 30% died from drowning. Fatal drowning remains the second-leading cause of unintentional injury-related death for children ages 1 to 14 years.
- **Minorities:**
  - Between 2000 and 2007, the fatal unintentional drowning rate for African Americans across all ages was 1.3 times that of whites. For American Indians and Alaskan Natives, this rate was 1.7 times that of whites.
  - Rates of fatal drowning are notably higher among these populations in certain age groups. The fatal drowning rate of African American children ages 5 to 14 is 3.1 times that of white children in the same age range. For American Indian and Alaskan Native children, the fatal drowning rate is 2.3 times higher than for white children.
  - Factors such as the physical environment (e.g., access to swimming pools) and a combination of social and cultural issues (e.g., wanting to learn how to swim, and choosing recreational water-related activities) may contribute to the racial differences in
drowning rates. Current rates are based on population, and not on participation. If rates could be determined by actual participation in water-related activities, disparity in minorities drowning rates compared to whites would be much greater.

What factors influence drowning risk?

- **Lack of Supervision and Barriers.** Supervision by a lifeguard or designated water-watcher is important to protect young children when they are in the water, whether a pool or bathtub. But when children are not supposed to be in the water, supervision alone isn’t enough to keep them safe.
  - Barriers such as pool fencing should be used to help prevent young children from gaining access to the pool area without caregivers’ awareness. There is an 83% reduction in the risk of childhood drowning with a four-sided isolation pool fence, compared to three-sided property-line fencing.
  - Among children ages 1 to 4 years, most drowning occur in residential swimming pools. Most young children who drowned in pools were last seen in the home, had been out of sight less than five minutes, and were in the care of one or both parents at the time.

- **Natural Water Settings (such as lakes, rivers, or the ocean).** The percent of drowning in natural water settings increases with age. When a location was known, 65% of drowning among those 15 years and older occurred in natural water settings.

- **Lack of Life Jacket Use in Recreational Boating.** In 2009, the U.S. Coast Guard received reports for 4,730 boating incidents; 3,358 boaters were reported injured, and 736 died. Among those who drowned, 9 out of 10 were not wearing life jackets. Most boating fatalities that occurred during 2008 (72%) were caused by drowning with 90% of victims not wearing life jackets; the remainder were due to trauma, hypothermia, carbon monoxide poisoning, or other causes.

- **Alcohol Use.** Alcohol use is involved in up to half of adolescent and adult deaths associated with water recreation and about one in five reported boating fatalities. Alcohol influences balance, coordination, and judgment, and its effects are heightened by sun exposure and heat.

- **Seizure Disorders.** For persons with seizure disorders, drowning is the most common cause of unintentional injury death, with the bathtub as the site of highest drowning risk.

What has research found?

- Participation in formal swimming lessons can reduce the risk of drowning by 88% among children aged 1 to 4 years.
• Seconds count. CPR performed by bystanders has been shown to improve outcomes in drowning victims. The more quickly intervention occurs, the better change of improved outcomes.

• A CDC study about self-reported swimming ability found that:
  o Younger adults reported greater swimming ability than older adults.
  o Self-reported ability increased with level of education.
  o Among racial groups, African Americans reported the most limited swimming ability.
  o Men of all ages, races, and educational levels consistently reported greater swimming ability than women.

**How can drowning be prevented?**

**To help prevent water-related injuries:**

• **Supervision when in or around the Water.** Designate a responsible adult to watch young children while in the bath and all children swimming or playing in or around water. Supervisors of preschool children should provide “touch supervision”, be close enough to reach the child at all times. Adults should not be involved in any other distracting activity (such as reading, playing cards, talking on the phone, or mowing the lawn) while supervising children.

• **Buddy System.** Always swim with a buddy. Select swimming sites that have lifeguards whenever possible.

• **Seizure Disorder Safety.** If you or a family member has a seizure disorder, provide one-on-one supervision around water, including swimming pools. Consider taking showers rather than using a bath tub for bathing.

• **Learn to Swim.** Formal swimming lessons can protect young children from drowning. However, even when children have had formal swimming lessons, constant, careful supervision when children are in the water, and barriers, such as pool fencing, to prevent unsupervised access are necessary.

• **Learn Cardiopulmonary Resuscitation (CPR).** In the time it might take for paramedics to arrive, your CPR skills could make a difference in someone’s life.

• **Do Not Use Air-Filled or Foam Toys.** Do not use air-filled or foam toys, such as "water wings", "noodles", or inner-tubes, in place of life jackets (personal flotation devices). These toys are not designed to keep swimmers safe.

• **Avoid Alcohol.** Avoid drinking alcohol before or during swimming, boating, or water skiing. Do not drink alcohol while supervising children.

**If you have a swimming pool at home:**

• **Four-Sided Fencing.** Install a four-sided pool fence that completely separates the house and play area of the yard from the pool area. The fence should be at least 4 feet high. Use self-closing and self-latching gates that open outward with latches that are out of reach of children. Also, consider additional barriers such as automatic door locks or alarms to prevent access or notify you if someone enters the pool area.
• **Clear the Pool and Deck of Toys.** Remove floats, balls and other toys from the pool and surrounding area immediately after use so children are not tempted to enter the pool area unsupervised.

**If you are in or around natural bodies of water:**

• Know the local weather conditions and forecast before swimming or boating. Strong winds and thunderstorms with lightning strikes are dangerous.
• Use U.S. Coast Guard approved life jackets when boating, regardless of distance to be traveled, size of boat, or swimming ability of boaters.
• Know the meaning of and obey **warnings represented by colored beach flags**, which may vary from one beach to another.
• Watch for dangerous waves and signs of **rip currents** (e.g., water that is discolored and choppy, foamy, or filled with debris and moving in a channel away from shore). If you are caught in a rip current, swim parallel to shore; once free of the current, swim toward shore.