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CENTER OF DISEASE CONTROL STATISTICS (REFERENCE: ONLINE 2008)
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HOW BIG IS THE PROBLEM?

- In 2005, there were 3,582 fatal unintentional drownings in the United States, averaging ten deaths per day. An additional 710 people died, from drowning and other causes, in boating-related incidents.
- More than one in four fatal drowning victims are children 14 and younger. For every child who dies from drowning, another four received emergency department care for nonfatal submersion injuries.
- Nonfatal drownings can cause brain damage that may result in long-term disabilities including memory problems, learning disabilities, and permanent loss of basic functioning (i.e., permanent vegetative state).

WHO IS MOST AT RISK?

- **Males:** In 2005, males were four times more likely than females to die from unintentional drowning in the United States.
- **Children:** In 2005, of all children 1 to 4 years old who died, almost 30% died from drowning. Although drowning rates have slowly declined, fatal drowning remains the second-leading cause of unintentional injury-related death for children ages 1 to 14 years.
- **Minorities:**
 - Between 2000 and 2005, 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 1.8 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 3.2 times that of white children in the same age range. For American Indian and Alaskan Native children, the fatal drowning rate is 2.4 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., valuing swimming skills and choosing recreational water-related activities) may contribute to the racial differences in drowning rates. If minorities participate less in water-related activities than whites, their drowning rates (per exposure) may be higher than currently reported.

WHAT ARE THE MAJOR RISK FACTORS?

- **Lack of barriers and supervision.** Children under one year most often drown in bathtubs, buckets, or toilets. Among children ages 1 to 4 years, most drownings 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. [Barriers, such as pool fencing](#), can help prevent children from gaining access to the pool area without caregivers' awareness.
- **Age and recreation in natural water settings (such as lakes, rivers, or the ocean).** The percent of drownings in natural water settings increases with age. Most drownings in those over 15 years of age occur in natural water settings.
- **Lack of appropriate choices in recreational boating.** In 2006, the U.S. Coast Guard received reports for 4,967 boating incidents; 3,474 boaters were reported injured, and 710 died. Among those who drowned, 9 out of ten were not wearing life jackets. Most boating fatalities from 2006 (70%) were caused by drowning; the remainder were due to trauma, hypothermia, carbon monoxide poisoning, or other causes. Open motor boats were involved in 45% of all reported incidents, and personal watercraft were involved in another 24%.
- **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 CDC RESEARCH FOUND?

A CDC study about self-reported swimming ability found that:

- Younger respondents reported greater swimming ability than older respondents.
- Self-reported ability increased with level of education (i.e., high school graduate, college graduate, etc.).
- Among racial groups, African Americans reported the most limited swimming ability.
- Men of all ages, races, and educational levels consistently reported greater swimming ability than women.

Details about additional studies and their findings are highlighted in the [Water-Related Injuries: CDC Activities](#) fact sheet.



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HOW CAN WATER-RELATED INJURIES BE PREVENTED?

To help prevent water-related injuries:

- Designate a responsible adult to watch young children while in the bath and all children swimming or playing in or around water. 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.
- Always swim with a buddy. Select swimming sites that have lifeguards whenever possible.
- Avoid drinking alcohol before or during swimming, boating, or water skiing. Do not drink alcohol while supervising children.
- Learn to swim. Be aware that the American Academy of Pediatrics does not recommend swimming classes as the primary means of drowning prevention for children younger than 4. Constant, careful supervision and barriers such as pool fencing are necessary even when children have completed swimming classes.
- 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. CPR performed by bystanders has been shown to improve outcomes in drowning victims.
- 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.

If you have a swimming pool at home:

- Install a four-sided, isolation 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.
- Remove floats, balls and other toys from the pool and surrounding area immediately after use. The presence of these toys may encourage children to enter the pool area or lean over the pool and potentially fall in.

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.
- 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.

UPDATE: Recent media reports have incorrectly attributed to CDC data about incidents of "dry drowning." CDC supports international consensus defining drowning as "the process of experiencing respiratory impairment from submersion/immersion in liquid" and does not distinguish between "wet" and "dry" drowning. Children most commonly drown when they get into a pool area unsupervised (for example, if there is inadequate fencing) or they are playing in or around water without constant supervision or lifeguarding. Most drownings happen quickly, and usually silently. Aquatic activities under appropriate circumstances and supervision are generally safe; additionally, swimming and water safety skills are important and can be life-saving. Learn more about [preventing water-related injuries](#).