Definitions

Drowning is: “The process of experiencing respiratory impairment from submersion/immersion in liquid.”

It is further defined into three categories:

- Fatal
- Non-fatal with injury or illness
- Non-fatal without injury or illness.

These terms are commonly misused by the media and general public: there is no medically accepted definition for drowning other than the one above.

What Happens To Your Body

- The struggle to breathe causes hyperventilation.
- Hyperventilation leads to increased carbon dioxide levels.
- The high CO2 level compared to low O2 causes involuntary breath taking.
- Water inhalation causes coughing/choking.
- The larynx closes and hypoxia occurs.
- Laryngospasms allow water to enter the lungs.
- Hypoxia/the disruption by water in the lungs causes the heart to stop.

Statistics

- Over 3,500 fatal unintentional drownings (non-boating related) are reported annually in the US. An additional 332 people die each year from drowning in boating-related incidents.
- About one in five people who die from drowning are children 14 and younger. For every child who dies from drowning, another receive expensive department care for nonfatal submersion injuries.
- Drowning is the 3rd leading cause of unintentional injury death worldwide, accounting for 7% of all injury-related deaths.
- Males, children ages 1-4, minority populations, and those impaired by alcohol are at the highest risk of drowning.
- Drowning can occur wherever there is water present. The most common areas for children are swimming pools, and natural bodies of water for teens and adults.

Most children who fatally drown are missing for less than 5 minutes and are in the presence of one or both parents.

It can take as little as 20 seconds for a child and 60 seconds for an adult to submerge beneath the water.

Water Safety In Our Program

- Pre-trip staff training modules on drowning recognition and CPR certification.
- Swim test on first day for all students to complete adequately results in limited watersports activities/extra precautions during recreational swim time.
- Buddy system during all scuba/snorkeling activities.
- Supervised swimming-staff are present or within 50 feet of all swimming activities.
- No swimming at night outside of night training dives.
- PFDs- worn any time the vessels are underway, during watersports, and during small dinghy rides.
- Emphasis on sun safety and hydration.

Barriers to success- staff have no formal training in measuring swimming ability, constant water-based environment breeds complacency, other program duties take away from swimming supervision, inexperienced staff can be lenient on safety if it appears not as fun.

Areas for improvement- more staff with formal Lifeguard experience in program, develop clearer freediving policy, increase supervision abilities during swim time.

Our drowning incident history includes several minor, temporary immersion complications and one non-fatal/no immersion drowning post seizure.

Key Points

- Drowning is a global health issue
- Drowning is highly preventable
- Most drowning incidents don’t result in death
- Recognizing a drowning incident can save a life

Let’s Debate!

Lifeguards... essential or a liability?
Swim lessons for infants... prudent or false sense of security?
Lifeguards... always or uncool?
Home pools... fun or fearful?
Anna Johnson, anna.j@gxg.org
Scan to find a Red Cross Lifeguard class near you!

Recognizing and Treatment of Drowning Incidents

In the event of a drowning, there is a 10% chance of survival if no treatment is used.

If the person is able to answer you, they may be in distress but are also likely able to assist in their own rescue. They will be able to hold on to something that is reaching out to them or has been thrown.

If they are unable to answer you, the indirect drowning response has taken over and you have limited time, often less than 30 seconds, to help them above or out of the water.

The “go” part of an in-water rescue should be used as a last resort, and whenever possible by those trained formally in lifeguarding skills.

SOLAS CONCERNS

1) remove the victim from standing water.
2) remove wet clothing.
3) wipe dry the area where the pads go, and
4) make sure anyone nearby is clear of standing water.

Who Are We?

ActionQuest runs three 17-21 day programs per summer in the British Virgin Islands, with approx. 450 participants in total plus 50 staff. Teens ages 12-18 grouped by age and grade live in SRT boats and learn to sail, scuba dive, windsurf, waterski/wakeboard, and cook, clean, and participate fully in the running of the vessels (up to sixteen operating at a time). ActionQuest places a strong emphasis on experiential education, leadership development, and personal integrity/responsibility during each program.

A CDC study in 2001 found that lifeguards can significantly reduce the incidence of water-related injury or death. The biggest barriers to lifeguard placement were liability concerns and cost. The biggest barrier to lifeguard efficacy was distraction by other job duties.

Water Safety in Our Program

- Pre-trip staff training modules on drowning recognition and CPR certification.
- Swim test on first day for all students - failure to complete adequately results in limited watersports activities/extra precautions during recreational swim time.
- Buddy system during all scuba/snorkeling activities.
- Supervised swimming - staff are present or within 50 feet of all swimming activities.
- No swimming at night outside of night training dives.
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