Water Safety

Overview

Drowning is the leading cause of unintentional injury-related death for children ages 1 to 4. It takes only seconds to drown, and often occurs silently when an unsupervised child is near water. Although most drownings occur in residential swimming pools, children can drown in just one inch of water (such as in buckets, bath tubs, wading pools, diaper pails, toilets, hot tubs, and spas). In addition, open waters such as oceans, rivers, and lakes pose a drowning threat to older children.

Consider these facts concerning drowning from the National SAFE KIDS Campaign:

- When a child is submerged two minutes in water, he/she loses consciousness.
- Irreversible brain damage sets in after four to six minutes of water submersion.
- Most children die if they are found after 10 minutes in the water.

Parents are advised to take the following preventive steps to protect their children from drowning:

- Never leave your child unsupervised near water at or in the home, or around any body of water, including a swimming pool.
- Learn cardiopulmonary resuscitation (CPR) and infant and child first-aid.
- Do not rely on personal flotation devices (PDFs) or swimming lessons to protect your child.
- Install childproof fencing around swimming pools.
- Make sure you have rescue equipment, a telephone, and emergency phone numbers near the swimming pool.
- Insist that your child wear a US Coast Guard-approved personal flotation device on boats at all times.
- Do not allow children to dive in waters less than 9 feet deep.

Prevention

If children are around bodies of water on a regular basis, it benefits parents to learn cardiopulmonary resuscitation (CPR), which, in case of an emergency, can save lives, reduce the severity of injury, and improve the chance of survival. CPR training is available through the American Red Cross, the American Heart Association, and your local hospital or fire department. The following information reviews age specific drowning prevention tips.
Infants (up to 1 year of age):
Infants can drown in just one inch of water. Most infant drownings occur in bathtubs. Some drowning prevention tips to remember around your infant include the following:

- Never leave a young child alone in the bathtub, not even for a minute. Even supportive bathtub "rings" cannot keep your child from drowning.
- Empty any buckets or other containers with liquids.
- Keep bathroom doors closed and install childproof devices to keep your child out of the bathroom (such as doorknob covers).
- Keep toilets closed and/or use childproof toilet locks.

Preschoolers (1 to 5 years of age):
Children in this age group most often drown in swimming pools. This often occurs when the preschooler wanders away from the house and into the pool without parents being aware of the child's absence. Children can slip into swimming pools without a sound or splash.

Swimming pool safety:
To protect your child from drowning in a swimming pool, the American Academy of Pediatrics (AAP) offers the following tips:

- Always supervise your child closely in or near a swimming pool. Never leave a small child alone in or near a pool, even for a moment.
- Remove toys from the pool so that your child is not tempted to reach for them.
- Always empty blow-up pools after each use, and put them away.
- Do not let your child use a diving board in a pool that is not approved for it.
- Avoid pool slides; they are very dangerous.
- Keeping electrical appliances away from the pool to prevent electric shocks.
- Do not allow riding toys near pools.
- Keep a telephone near the poolside for emergency use.
- Install isolation fencing around the pool. A fence around your pool not only protects your child, but other children in the area as well. Fencing around pools should adhere to the following specification to maximize your child's safety:
  - The fence should separate the pool from the house and play area of the yard.
  - Fences around pools should have four sides and not include the wall of the house as one side.
  - Fencing must be at least 48 inches tall.
  - Spacing between the fence slats should be no more than 4 inches. For chain-link fences, the diamond shapes should not be bigger than 1-3/4 inches.
  - The fence should have a self-closing and self-latching gate, with latches that are above a child's reach. The gate should also open away from the pool, so that if a toddler leans against an unlatched gate, it will close.
  - Other helpful devices, which, when used with pool fencing, maximize the safety of your child, include pool alarms, door or gate alarms, and automatic pool covers that cover the pool completely. Make sure there is no standing water on the pool cover.
School-age children (5 to 12 years of age):
Children in this age group are more likely to drown in bodies of waters such as oceans, lakes, and rivers.
- Always supervise your child when he/she is swimming in any body of water.
- Do not let your child dive unless you know the depth of the water and it is at least nine feet.
- Do not allow your child to swim during thunderstorms or lighting storms.
- Do not let your child rough-house with others in the water in ways that may be mistaken for drowning.
- Teach your child to stay calm and tread water until help arrives if he/she drifts too far from shore.
- Make sure your child wears a personal flotation device (PFD) approved by the US Coast Guard when boating.
- Do not allow your child to swim around boats and/or in areas where people are water-skiing.
- Avoid letting your child play with blow-up water toys in water that is above the waist.

Adolescent children (12 to 18 years of age):
Although older children are more likely to know how to swim, they are at risk for drowning due to overestimation of their skills, unawareness of water currents or water depth, and when consuming alcohol or using drugs. To protect your adolescent from drowning, the American Academy of Pediatrics (AAP) offers the following tips:
- Insist that your adolescent always swim with a buddy.
- Encourage your adolescent to take swimming, diving, and water safety or rescue classes to give him/her the skills needed to swim and dive safely. These classes may also prevent your adolescent from acting recklessly.
- Teach your adolescent never to swim or dive while under the influence of alcohol or drugs.
- Make sure your adolescent checks the depth of the water before diving.

Identifying High-Risk Situations

It only takes one inch of water to drown a toddler. Knowing where your children are, even older children, at all times, can help prevent them from drowning. According to the National SAFE KIDS Campaign, the majority of children who drown in swimming pools were last seen in the home, were missing from sight for less than five minutes, and were in the care of one or both parents at the time of the drowning.

In and around the home:
More than half of all infant drownings (under age 1) occur in bathtubs. Supportive baby bathtub "rings" do not prevent drownings if the child is unsupervised. Water hazards in and around the home may include the following:
- buckets (especially 5-gallon size)
- diaper pails
- toilets
- ice chests with melted ice
- hot tubs, spas, and whirlpools
• ditches and post holes
• wells
• ponds and fountains

Small children can drown when they lean forward to look into a bucket or open the toilet. Because the head is the heaviest part of a small child, it is easy for him/her to fall over into a container. Containers filled with liquid often weigh more than the small child and will not tip over when the child falls in.

Swimming pools:
More than half of childhood drownings occur in swimming pools, either at the child's home or at a friend's, neighbor's, or relative's house. Pools are especially hazardous if:
• children swim unsupervised
• the pool is not properly fenced in
• there is no telephone with emergency numbers nearby
• there is no rescue equipment near the pool
• parents rely on personal flotation devices (PFDs) to keep their child safe

Boating:
When boating, sailing, and canoeing, children of all ages should wear US Coast Guard-approved personal flotation devices (PFDs) such as life jackets. In fact, many states require the use of PFDs on all boats at all times. According to the National SAFE KIDS Campaign, it is estimated that 85 percent of boating-related drownings can be prevented if people wear PFDs.

Drowning in the winter:
Children can drown during the winter by falling through thin ice. In addition, pools with winter covers that do not completely cover the pools pose a threat, because children can slip between the cover into the pool.

Injury Statistics and Incidence Rates

The following statistics are from the National SAFE KIDS Campaign and the National Safety Council:

Injury and death rates:
• Approximately 856 children ages 14 and under drowned in 2004; more than 60 percent of these children were under age four.
• Approximately 15 percent of children admitted to hospitals for near-drowning die, while another 20 percent will suffer severe and permanent brain damage.
• More than half of drownings among infants occur in bathtubs.
• Among children ages four and under, there are about 300 residential swimming pool drownings each year.
Where and when:
- Most infants under the age of one drown in bathtubs. Other drownings in this age group tend to occur in toilets and buckets. Drownings in bathtubs account for 10 percent of all childhood drownings, most often when the child is unsupervised.
- More than half of childhood drownings in pools occur in the child's home pool, with one-third of these drownings occurring at the homes of friends, neighbors, or relatives.
- Most drownings and near-drownings occur on the weekend (40 percent) during late spring and summer (May through August).
- More fatal drownings occur in the South and West.
- More fatal drownings occur in rural areas than suburban or urban areas.

Who:
- The majority (more than 85 percent) of children who drown in swimming pools are between the ages of one to four.
- Each year, almost 300 children ages five and under drown in swimming pools, while another 3,700 children in this age group are treated for near-drowning in hospital emergency rooms.
- Children age four and under are two to three times more likely to drown than other age groups and account for 80 percent of home drownings.
- Boys are two to four times more likely to drown than girls.
- Girls are twice as likely to drown in bathtubs as boys.
- African-American children age five to nine are four-and-a-half times more likely to drown in swimming pools than Caucasian children.
- Non-swimming pool drownings are more common among low-income children.

Available online at www.musckids.com

This handout was developed to help individuals understand more about injury prevention measures. It is meant to be used as a guide. Please consult the manufacturer’s instructions and/or your healthcare provider if you have any questions.