

IN-HOME DROWNING HAZARDS

Quick Facts

From 1996 through 1999, CPSC is aware of 459 children under 5-years-old who died from complications of drowning in products in and around the home. The products most frequently involved in these drowning deaths include bathtubs, 5-gallon buckets, spas and hot tubs, and toilets.

BATHTUBS

- From 1996 through 1999, CPSC has reports of 292 children under 5-years-old who died as a result of drowning in a bathtub.
- The majority of the children, 179 of the 292, drowned in an incident that did not involve another product or fixture of the bathtub. Baby bath seats were involved in 29 incidents. Other products were involved in 17 incidents. In 67 incidents, it is unknown whether another product was involved in the incident.
- Information about caregiver supervision was reported in 231 incidents. The victims were not being supervised in 222 of these incidents. In the remaining nine incidents, the caregiver was reported as supervising the child.

BUCKETS

- From 1996 through 1999, 58 children under 5-years-old died of complications related to drowning after falling into 5-gallon buckets. All of the children were 18-months-old or younger when the incident occurred.
- The 5-gallon buckets were used for a number of household tasks, but most frequently for cleaning. Thirty-eight children died when they fell into 5-gallon buckets filled with cleaning solution, including water, bleach, detergent, soap, pine cleaner, and ammonia.
- The 5-gallon buckets were found in multiple locations in the homes and were left filled for periods between a few minutes and more than one day. Most of the incidents involved 5-gallon buckets that contained dirty water that had not been emptied for some time.

SPAS AND HOT TUBS

- From 1996 through 1999, CPSC is aware of 55 children under 5-years-old who died as a result of drowning in a residential spa or hot tub.
- While details are limited for these incidents, there is information that some children were found under soft covers of the hot tub or that hot tub covers were left open and the child was found in the hot tub.
- Children reportedly accessed the spas and hot tubs through open or broken gates and sliding glass doors in some of the incidents.

TOILETS

- From 1996 through 1999, 16 children under 5-years-old drowned in a household toilet.
- These incidents involved children under 3-years-old, usually falling headfirst into the toilet.

OTHER PRODUCTS

- From 1996 through 1999, 38 children under 5-years-old drowned in other products around the home.
- Products included buckets with a capacity other than 5-gallons, landscape ponds, water coolers, sinks, garbage cans, cookware, bathroom floors, an outdoor garbage dump, an outdoor drainage pot, a horse trough, a fish tank, a septic tank, and a diaper pail.



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
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Memorandum

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SUBJECT : Fatality Information for the "In-Home Drowning Prevention Campaign"

This memorandum was prepared for the "In-Home Drowning Prevention Campaign." The campaign is a program to inform the public about drowning hazards within and around the home. CPSC databases were searched for any drowning incidents in and around the home in which a child under 5-years-old died between 1996 and 1999.¹ The primary products discussed in this memorandum are 5-gallon buckets, spas or hot tubs, toilets, and bathtubs. In addition, other types of products that children under 5-years-old drowned in from 1996 through 1999 are noted. Swimming pools and children's wading pools are not discussed in this memorandum.

From 1996 through 1999, CPSC is aware of 459 children under 5-years-old who died from complications of drowning or near drowning in products in and around the home.² This is not a statistical estimate of the number of deaths during this time period, nor is it a complete count of deaths during this time period. The number of deaths presented in this memorandum is a minimum count of the number of children under 5-years-old who died from complications of drowning in and around the home from 1996 through 1999 as reported to CPSC. Table 1 is a breakdown of the 459 drowning deaths with respect to the product involved.

¹ The databases searched were the National Electronic Injury Surveillance System (NEISS), the Death Certificate file (DTHS), the Injury and Potential Injury Incident file (IPII) and the In-Depth Investigation file (INDP). Data are complete for DTHS from 1996 through 1998 and are 94% complete for 1999.

² Recent attempts by the medical community to standardize drowning injury classification have resulted in the following widely accepted definitions. Drowning is defined as submersion in a fluid medium (usually water) that results in the victim's death within 24 hours of the submersion incident. Near drowning is defined as a submersion incident in which the victim survives for at least 24 hours, irrespective of whether they subsequently survive or die from complications related to the submersion incident. Although some experts discourage use of the term "secondary drowning," it is sometimes used to describe near-drowning cases that ultimately result in death from delayed complications related to the submersion incident.

Table 1. In-Home Drowning Deaths to Children Under 5-Years-Old, 1996 – 1999.*

Total of Consumer-Product Related Drowning Deaths	459
Bathtubs	292
5-Gallon Buckets	58
Spas and Hot Tubs	55
Toilets	16
Other Products	38

* Drowning deaths as reported to CPSC’s databases (NEISS, DTHS, IPII, and INDP). In-home drowning deaths do not include drowning deaths associated with swimming pools or wading pools.

BATHTUBS

The most frequent cause of drowning deaths of children in the home is submersion in the bathtub. From 1996 through 1999, CPSC has reports of 292 children under 5-years-old who died as a result of drowning in a bathtub. This includes incidents involving other products in the bathtub, such as a baby bath seat or bathinette. Table 2 summarizes the 292 bathtub drowning incidents.

Table 2. Summary Table of Bathtub Drowning Deaths Reported to CPSC, Children Under 5-Years-Old, 1996-1999.

Total Bathtub Drowning Deaths	292	
Age		
Birth to 11-months-old	148	
12-months-old to 23-months-old	93	
2-years-old	20	
3-years-old	14	
4-years-old	17	
Product Involvement		
No other product involved	179	
Bath seat involved	29	
Other product involved	17	
Unknown	67	
Supervision		
No supervision	222	
Supervised	9	
Unknown	61	
How Victim Got Into Bathtub and Sibling Involvement		
Placed in bathtub by caregiver	Without another child	83
	With another child	103
	Unknown	3
Fell/crawled into bathtub or Placed into bathtub by another child	Without another child	14
	With another child	26
	Unknown	1
Unknown how victim got into bathtub and unknown whether another child was involved	62	

The age group most frequently involved in the fatal drowning incidents is the under 1-year-old age group. One hundred and forty-eight children under 1-year-old died after a drowning or near drowning incident in a bathtub, constituting just over half of the bathtub fatalities in children under 5-years-old. Ninety-three of the 292 children were between 12-months-old and 23-months-old, 20 children were 2-years-old, 14 children were 3-years-old, and 17 children were 4-years-old. All but two of the children died from complications of drowning or near drowning within six weeks of the incident. In the remaining two incidents, a 4-year-old child and a 15-month-old child died as a result of near drowning incidents that occurred when the victims were each 11-months-old.

In many of the incidents involving children over 2-years-old the circumstances leading to the drowning deaths are unknown. However, it was reported that one 4-year-old slipped and hit his head before he drowned and one 3-year-old lost consciousness while in the bathtub. One 3-year-old was mentally impaired and his caretaker fell asleep beside the bathtub and two 4-year-olds suffered seizures while in the bathtub. One 4-year-old was using a kick board in a whirlpool bathtub and was found beneath the kick board with her hands stuck in the kick board.

The majority of the children, 179 of the 292, were reported to have been in the bathtub without a bathing aid. In 29 of the bathtub drowning incidents, the victims were reported to have been in baby bath seats. Twenty-four of the 29 bath seat-related drowning deaths involved children in the range of 5- to 10-months-old (the recommended age range for baby bath seat use). Two children were 11-months-old, two children were 12-months-old, and one child was 19-months-old at the time of the incidents involving bath seats. Other products were involved in 17 of the bathtub drowning incidents, including baby baths or bathinettes in six incidents, inflatable pool products in five incidents, and a kick board in one incident. Products not intended for use in water-situations, but involved in some of these 17 incidents, included one seat/carrier and also one bassinet/cradle. A 4-year-old child got tangled in the shower curtain and could not free himself and a 2-year-old child got his mouth stuck around the bathtub faucet and could not free himself, thus drowning from the water coming out of the faucet. In one incident, the reporting official stated that a bathing aid was used during the incident, but he could not recall the type of product. In the remaining 67 incidents, there was not enough information available to determine whether other products were involved in the drowning death.

Information about whether the child was being supervised at the time of the incident was known in 231 incidents. In 222 of these known incidents, the child was reported to have been left unsupervised while in the bathtub. The remaining nine incidents occurred while the parents were present. In three of these nine incidents, the parent became incapacitated by a medical problem while bathing the child. In two incidents, the caregiver fell asleep while bathing the child and in one incident, the father passed out from intoxication while taking a bath with the child. In the remaining three incidents, the parent or caregiver reported that the child drowned while they were supervising the child in the bathtub.

In 189 of the 292 cases of children under 5-years-old drowning in a bathtub, the child was placed into the bathtub by a parent or caregiver for the purpose of giving the child a bath. Another child (most often a sibling) was placed in the bathtub with the victim or was watching the victim during some portion of the bath in 103 of the 189 incidents. There were not other children

present in 83 incidents. In the remaining three incidents in which the child was placed in the bath by the parent or caregiver, it is unknown if another child was present at any point.

Children are not only at risk of drowning in bathtubs when taking a bath, but also when left with access to the tub. Of the 292 bathtub drowning deaths, the victim either fell into the bathtub, climbed into the bathtub, or was placed in the bathtub by another child in 41 incidents. In these cases, the parent or caregiver did not intend for the child to be in or near the bathtub at the time of the incident. Another child was involved in 26 of the 41 incidents, no other children were involved in 14 incidents and in the remaining incident it is unknown if another child was involved in the drowning. Sixty-two incidents did not contain sufficient information to know how the child got into the bathtub, or whether another child was present at the time of the incident.

5-GALLON BUCKETS

From 1996 through 1999, CPSC has reports of 58 children under 5-years-old who died of complications related to drowning after falling into 5-gallon buckets. All of the children were 18-months-old or younger when the incident occurred. Fifty-six of the children died from complications within one month of the incident and the other two children survived longer, but eventually died at ages 2 and 4 of complications related to the 5-gallon bucket drowning incident.

The 5-gallon buckets were used for a number of household tasks, but most frequently used for cleaning of the home. Thirty-eight of the children died when they fell into 5-gallon buckets filled with cleaning solutions of water and bleach, detergent, soap, pine cleaner, and/or ammonia. The 5-gallon buckets were reported to contain only water in 11 incidents, fish tank water in two incidents, and bath water, rain water, pond water, and clothing in water in one incident each. The contents of the 5-gallon buckets were unknown in the remaining three incidents. In addition to cleaning the house, the in-depth investigations described activities with the 5-gallon buckets that included placement of the buckets beside beds to use for sick children, to presoak clothing before cleaning, to change water in fish tanks, and to bathe children. In one incident, the home did not have running water, so the 5-gallon bucket contained drinking water.

The 5-gallon buckets were found in multiple locations in the homes. Most frequently, the buckets were in the kitchen (20 incidents). The buckets were also found outside the homes on patios, in backyards, and in apartment hallways (9 incidents), in bathrooms (7 incidents), in bedrooms (7 incidents), in garages, utility rooms, and laundry rooms (6 incidents), in living rooms (3 incidents), and in hallways within the residence (2 incidents). The room in which the 5-gallon bucket was placed at the time of the incident is unknown in the remaining 4 incidents.

The length of time that the 5-gallon bucket remained in the home with standing water was unknown in 27 incidents. Of the 31 incidents in which the length of time that the 5-gallon bucket contained standing water was known, only five occurred while the bucket was in use or had just been prepared. In another 14 incidents, the child fell into the 5-gallon bucket the same day that the bucket was filled with water or used for its intended purpose. At the time of these incidents, the 5-gallon bucket was no longer in use; however, the contents of the bucket had not

been emptied. In 12 incidents, the contents of the bucket had remained overnight or for longer than one day. These incidents include the 5-gallon buckets used for drinking water and those used for sick children. Most of the 5-gallon bucket drowning deaths involved buckets that contained dirty water that had not been emptied for some time.

SPAS AND HOT TUBS

From 1996 through 1999, CPSC is aware of 55 children under 5-years-old who died as a result of drowning or near drowning in a residential spa or hot tub. Five children were under 1-year-old, 26 children were between 12-months-old and 23-months-old, 16 were 2-years-old, six were 3-years-old, and two were 4-years-old.

Little information is known about the scenarios, such as how the children got into the residential spas or hot tubs or where the spas or hot tubs were located. There is limited information indicating that some children were found under soft covers on the spa or that covers were left open and the child was found in the hot tub. The children reportedly accessed the spas and hot tubs through open gates, broken gates, and sliding glass doors in some of the incidents.

TOILETS

From 1996 through 1999, 16 children under 5-years-old drowned in a household toilet. The incidents all involved children under 3-years-old, usually falling headfirst into the toilet. Eight children were under 1-year-old, five children were between 12-months-old and 23-months-old, and three children were 2-years-old when they drowned in the toilets. Details about the height of the toilet, the placement of the toilet lid, and the position of the bathroom door (open or closed) are not known.

OTHER PRODUCTS

From 1996 through 1999, 38 children under 5-years-old drowned in other products around the home. Eleven children drowned in a bucket other than a 5-gallon bucket. These buckets were used in situations similar to the 5-gallon buckets, including use for cleaning solutions, to bathe children, to catch water from a leaky faucet, and to hold drinking water, along with other unknown uses. Two of the children were 2-years-old when they fell into the bucket and the other nine children were under 2-years-old.

During the four-year time period, seven children drowned in a home landscape pond.³ All the children were under 2-years-old or younger when they fell into the ponds and drowned.

Other incidents involved sinks (4 children), water coolers (3 children), garbage cans (3 children), bathroom floors (2 children), cookware (2 children), an outdoor garbage dump, an outdoor drainage pot, a horse trough, a fish tank, a diaper pail, and a septic tank. Thirty-two of the 38 children fell into the product that they drowned in (water coolers, ponds, garbage dump, drainage pot, horse trough, fish tank, cookware, septic tank, garbage cans, diaper pail, and buckets). The

³ One incident involving a landscape pond was a satellite dish that had been converted to a landscape pond and in use as a pond at the time of the incident.

only six incidents in which a child did not fall into a product were the four sink drowning incidents and two bathroom floor incidents. Four children were left in or near the sink and drowned while unattended. The children found on the bathroom floors drowned after siblings turned water on in the bathtubs while the caregivers were not present.