



water safety

childhood drowning, near drowning facts and prevention

- Drowning is a major cause of death and disability in the world¹ and is the second leading cause of injury death for children of the European Union. More than 70% of the victims are boys and the most vulnerable are children one to four years of age.²
- Toddlers usually drown near home: in pools, baths, or garden ponds. An additional spike in drowning rates occurs in adolescent boys, who are more likely to drown in open water: seas, lakes, or rivers.
- A drowning incident in the home takes many people by surprise, as it happens silently within seconds, in as little as 2 centimetres of water, in less time than it takes to answer the telephone. It can take place in the bathtub or swimming pool. The estimated time that a drowning victim was noted to be missing was usually less than 5 minutes and in a swimming pool drowning, no caregiver has ever reported hearing a splash, even when the caregiver was by the poolside.³
- In the United Kingdom more children died in pools abroad while on vacation than at home in the United Kingdom, and more than half of those who drowned could in fact swim.⁴
- For every child who drowns in the Netherlands, an additional 140 children are hospitalised for near-drowning; for every hospital admission, approximately 20 children are treated in hospital emergency rooms each year.⁵
- Along the southern coast of Portugal in Algarve, a tourist area with over 150 kilometres coastline, 83% of child drownings over the last seven years have occurred in swimming pools. Only one pool was fenced, and 72% of the victims were children visiting, mostly from abroad.⁶
- Alcohol use is one of the most frequently reported contributory factors associated with drowning and causes poorer supervision of children.⁷
- Inadequate supervision was found to be the most common factor associated with drownings and near-drownings.⁸
- Drownings occur more often in communities with a high number of residential pools.⁹
- In France between June and September 2003, 74 children between the ages of 0 to 12 were victims of near-drowning in private swimming pools, while another 26 children drowned in private swimming pools. In the majority of these drownings, the child could not swim and was not known to be playing by the pool at the moment, especially for the 0 to 5 year old children. The cause was most often a fall into the water.¹⁰
- Recreational diving causes 10% of all types of swimming pool injuries to children 14 years and under, and accounts for 70% of all severe spinal cord injuries inflicted during recreation and play.¹¹ A depth of 1.8 metres is recommended as safe for recreational diving.





- Nearly half of all drownings and diving-related spinal cord injuries to adolescents can be attributed to alcohol use.¹²

- There are on average 648 swimming pool injuries per day in the European Union.¹³

Drowning Prevention Effectiveness

- The most effective way to prevent drowning is to control access to the water.

There are multiple ways to do this:

- Swimming pool fencing – fenced private pools reduce the likelihood of a drowning by 95%. Isolation fencing is superior to perimeter fencing (enclosing property and pool together) for protecting children in the house and yard.¹⁴

- Pool alarms and pool covers provide additional coverage but should not be used in place of a four-sided fence or replace constant supervision because alarms and covers are not likely to be used appropriately and consistently by owners or visitors. If a child is missing, check the pool first, including under the pool cover.¹⁵

- Wearing a PFD (personal flotation device) – even the best swimmers can misjudge the water and their skills when boating or fishing; conditions change quickly in open water. It is estimated that 85% of annual boating-related drownings could be prevented with the use of a PFD.¹⁶

- Swim seats are dangerous products and should not be used for learning to swim; nor should bath seats be used without constant touch supervision.

- Expert opinion states that signs regarding safe behaviours displayed in clear and simple symbols are an important preventative action.

- Water wings are recommended for learning to swim because they help the child to keep balance. Yet it is important to remember that these buoyancy aids, however helpful they may appear, are only “aids” and that it is always necessary to closely monitor children using them in water of all depths.¹⁷ PFDs provide more protection.

Teens, who have the second highest drowning rate, should be encouraged to wear PFDs while boating, fishing and engaging in other high-risk activities such as jet-skiing and tow sports. In many places the law requires their use for these activities.

- Swimming instruction is effective at improving swimming performance: the ability and techniques to dive safely, swim underwater, breathe correctly, and tread water are important components which should be taught to all children ages 4 and up.

However, swimming ability alone is not sufficient to prevent drownings and constant supervision is still necessary for young swimmers.¹⁸ Swimming programs for children under 4 years of age provide many health and fitness benefits, but do not lower drowning risk nor decrease the need for supervision.



- Young children learning to swim should be taught to dive sitting, with their thumbs locked together, arms pressed against their ears, and chin to chest. Older children should be shown safe diving depths.

- When at the sea, swim in supervised areas when possible. In Portugal in 2006, the only children who died in the ocean were teenagers swimming in unsupervised beaches off season.²⁰

Recommendations for Action and Legislation:

- National and European legislation should require isolation fencing for swimming pools specifying the height and spacing of the fencing and requiring secure, self-latching gates. Legislation should require retrofitting of existing pools and include enforcement provisions in order to be effective. Open wells and water reservoirs should also require isolation fencing at a height of 1.10 metres, with a rigid mesh cover.

- National and European legislation should require swimming pools to have depth markers indicating safe diving areas. Diving in less than 1 meter should be banned completely, a depth of 1.8 metres is recommended for recreational swim areas.

- National and European legislation should require licensing and safety standards for organised holiday and camp activities. It is important that these consumer services be objectively evaluated for risk perception and management.

EU Collaboration:

- For the European Commission to create, update, and maintain surveillance databases of drownings in Europe. To be of value, these databases should include near-drownings, and important factors such as precise location and circumstance, age and nationality of victims, product or service related factors (i.e. PFD, bath seats, PWC), the role of alcohol, type of water environment and safety measures in place (i.e. fencing, lifeguard), and injuries and treatment required.

- For the European Commission to provide support for water safety experts throughout Europe to gather together and share expertise in order to assist with the design and assessment of existing and new products, safe recreational services guidelines, and other best practices with the goal of reducing childhood drowning.

- For the European Commission to support joint European level campaigning on water safety issues with the aim of reducing childhood drowning through collaboration on common European-wide shared safety goals and messages.

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