

# Fact Sheet:

## Drowning

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### **Drowning Defined**

Drowning is defined as death from suffocation by submersion in a liquid, which is usually freshwater or seawater (Modell 2001). This is different from near drowning which is the survival of a drowning event involving unconsciousness or water inhalation (SLSA 2005). Drowning is a significant unintentional accidental cause of death and neurological damage, particularly in children, and is preventable (Orlowski 1997).

### **Fast Facts from the Royal Life Saving Drowning Report 2007**

- Drowning is the number one cause of injury death in children under the age of five.
- 277 Australians drowned in 2006/07 financial year: a 5% increase on the 5 year average.
- Males are almost three times more likely to drown than females.
- Indigenous Australians are up to four times more likely to drown than the rest of the Australian community.
- 21 children aged 5-14 years drowned in 2007 which was a 54% increase on the 5 year average
- Children aged 0-4 years are 3.5 times more likely to die and 7.3 times more likely to be hospitalized as a result of a drowning incident when compared with other age groups in WA.
- Western Australia compared to the other states
  - Death rate from drowning exceeds the national death rates
  - 4<sup>th</sup> highest state for drowning deaths with 31 deaths
  - 3<sup>rd</sup> highest state for male deaths with 26 deaths

### **Where does it happen?**

The most common sites for drowning are non-tidal lakes and lagoons (19%) private swimming pools (17%) and oceans (16%). Fifty four West Australians in the 35-54 years age group drowned in a river/ocean/harbour of which 25 drowned in rivers and 25 drowned in oceans.

Private swimming pools remained a high risk danger spot for children with 15 of the 16 children under 5 years drowning in home swimming pools (RLS 2007). Despite prevention strategies including pool fencing drowning rates in young children worldwide have remained relatively static (Brenner 2000).

Ocean drowning was less common than freshwater drowning because fewer children swim unsupervised in the ocean. However 89% of overseas tourists that drown, drown in the ocean (Mackie et al. 1999). According to RLSA 2007, the main activities people were undertaking immediately prior to drowning were swimming/leisure activity (80 deaths), followed by falling into the water (56 deaths) in Australia.

## **Risk factors of Drowning:**

### *Alcohol*

Alcohol contributed to around 21% of all Australian drowning deaths (RLSA 2005). Alcohol affects judgment, vision, balance and movement and is a major risk factor in drowning for both adolescent and adult swimmers contributing to a third of water activity deaths. According to Fenner 1995, 38% of adult drowning had some exposure to alcohol at the time of rescue, resuscitation or death. There is also a major danger of operating a vehicle under the influence of alcohol, as operators who may fall overboard while intoxicated.

### *Unsupervised Swimming*

Swimming pool drowning are major causes for preventable death affecting young children and the ones that drown are generally unsupervised. Children do not understand the concept of danger and do not understand that they should avoid water. Children falling into water can lose consciousness very quickly and silently which explains the high casualty rates. Toddlers are also 'top heavy' which makes them more susceptible to drowning.

### *Rips & Currents*

Rips and currents are very common in countries like Australia which contain large coastlines and beaches. Rips are large volumes of water returning back out to sea after on shore wave action. Swimmers can be caught up in sideways currents that carry them into rip currents, which can result in drowning. Although preventative and rescue efforts from lifesaving and lifeguard associations guarding the beaches are particularly effective in Australia, there are many cases of drowning on beaches with large surf that are accountable for the drowning of many overseas tourists.

## **How to prevent drowning?**

Parent/Adult supervision is essential in preventing children drowning. Completing First Aid Training or Bronze Medallion equivalent will increase skills in Expired Air Resuscitation (EAR) and Cardio Pulmonary Resuscitation (CPR) and help save Australian lives. However, only 70% of Australian children currently receive adequate water safety education (RSLA 2007). Also increasing the swimming ability and safety skills of young children will reduce the risk of drowning. Since 2006, there have been strict Australian laws that require all backyard pools to have fences and gates which must have self closing and self latching mechanisms.

Personal Flotation Devices (PFDs) should be used on all boats and personalized watercrafts. However, 1 in 2 boaters do not use PFDs. Additionally, it is important to check the local weather conditions regularly and the location of any underwater hazards before heading out to sea, which would also reduce the cases of drowning in the ocean.

A study in the United States showed that banning alcohol near water in pools results in a dramatic decrease in the incidence of drowning (Quans et al. 2007). Preventing alcohol consumption and drug usage on Australian beaches and home pools would be an effective way of minimizing the risk of drowning.

## **References:**

Modell J.H. (2001) Drown versus near-drown: a discussion of definitions [editorial]. *Crit Care Med* 1981;9(4): 351-2

Orlowski J.P. (1997) Drowning near-drowning and ice-water submersions. *Pediatric Clinic North America* 1987;34(1): 75-92

Pearn J. (1992) Medical Aspects of drowning in children. *Ann Acad Med Singapore*; 21 (3): 433-5

Brenner, T. (2000) Pool fencing for preventing drowning in children. *Injury Prevention & Research Centre*: 253-5

Mackie I, Tebb N, Eady T. (1999) Patterns of drowning in Australia. *Medical Journal of Australia*, Sydney.

Quan, L. Bennett, E. Branche, C.M (2007) Interventions to Prevent Drowning. *Handbook of Injury and Violence Prevention*. Springer US: 81-96

Fenner T., Driscoll W., Harrison, B. (2004) Alcohol and drowning in Australia. *Injury Control and Safety Promotion* 11(3), pp. 175-181(7) Taylor and Francis Ltd.

## **FURTHER INFORMATION:**

*Australian Department of Health and Ageing: Drowning Prevention*

[http://www.health.gov.au/pubhlth/strateg/injury/keyact.htm#near\\_drown](http://www.health.gov.au/pubhlth/strateg/injury/keyact.htm#near_drown)

*Drownings and near drownings at home*

<http://www.general.monash.edu.au/muarc/hazard/haz05.pdf>

*Injury Control Council of Western Australia: Unintentional Childhood Drowning*

<http://www.iccwa.org.au/drowning.htm>

*Royal Lifesaving Society Australia*

<http://www.royallifesaving.com.au/>

*Royal Lifesaving Society Australia (WA)*

<http://www.lifesavingwa.com.au/>

*2007 Drowning Report, Royal Life Saving Society of WA*

[http://www.lifesavingwa.com.au/pdf/drowning\\_2007.pdf](http://www.lifesavingwa.com.au/pdf/drowning_2007.pdf)

*Surf Life Saving Western Australia Inc (WA)*

<http://www.mybeach.com.au/>