

Vehicles in Water

February 2008

There are a worrying number of drowning victims that occur due to vehicles crashing into rivers, lakes, waterways and ditches and even in swimming pools. In these incidents drivers and passengers have been trapped inside, the cause of death being drowning, not injuries sustained in the crash itself. Research in Canada has proposed that a large number of these drownings occur because victims are uneducated or misinformed as to vehicle sinking characteristics and proper techniques for getting out. Ultimately, the best prevention is to drive safely and carefully to avoid losing control of your vehicle.

The nature of the problem

- Between **2000-2005** the average number of victims a year was over 20.
- Around 1 in 5 of these events resulted in multiple fatalities with between 2 and 5 victims.
- This figure is significantly higher than the average number of multiple fatality accidents per year in the UK for all road accident fatalities.
- At least 73% of these fatalities were male.
- Around 50% of these males aged between 15 and 45 years old.
- Most commonly this type of fatality occurred in a lake, however roadside ditches are a concern that is particular to Norfolk and Suffolk.
- In **2005** around 6% of accidental drownings were in vehicle and 12 of the 28 victims were killed in just three events.
- *Road Casualties Great Britain* records 33 accidents during 2005 that involved a vehicle being submerged where 27 of these occurred on non built-up roads. Further to this another 1,846 vehicles crashed into a ditch.
- A vast majority of these fatalities were due to speeding or driving unsafely for the weather conditions, ending in a loss of control of the vehicle.

The best prevention

- Drive carefully.
- Always drive at a reasonable speed below the limit.
- Adjust your driving for the prevailing weather conditions.
- Driver fatigue is another common reason why vehicles lose control and leave the road. It is safest to plan journeys in advance, and never drive when you feel tired.
- Don't drink before driving – drivers who have alcohol before they drive are more likely to be in an accident even if they are below the legal alcohol limit. It may also mean that you are less alert and less able to help yourself if you do end up in the water.
- Wear a seatbelt. It will increase chances of survival by lessening the impact of the crash, giving you a greater chance at maintaining the ability to help yourself afterwards.

If you end up in water...

- Stay calm and get out of the vehicle as quickly as possible.
- Escape should be attempted in the small amount of time (around 30 seconds to 2 minutes) during which a vehicle often floats, after which the weight of the engine pulls the vehicle under.
- The sooner you escape the better: cars are not airtight, and will not form an air bubble for survival under water.
- When sunk, pressure on the doors and windows exerted by the outside water makes them very difficult, even impossible, to open.

Although we recognise that each crash is different and circumstances vary according to situation and ability, if you are able to undertake the actions below following an accident into the water, your chances of survival will increase:

- **Unbuckle your seatbelt first**, ensuring your passengers follow suit. Children may need help from yourself or anyone else able in the car to unbuckle and get out a window.
- **Open the window** as soon as possible as this will provide you with a way to escape. If the window will not open, try to break it using a heavy object or a 'life hammer'. Side windows are usually weaker than windscreens; try to break a side window in the corner where it is weakest if it cannot be wound down.
- **Do not open the door** because this will allow water inside and the vehicle will sink faster.
- If possible **assist children to escape** through the window, then **get yourself out**.
- **Call the emergency services** if you are able as soon as possible after exiting the vehicle.

Flooding

Of particular concern are those who are driving during times of flooding. In these conditions drivers can easily become trapped by rising floodwaters when rivers are in spate. It only takes six inches of water before a driver can lose control of a small vehicle.

If it is necessary to drive during flooding, the following precautions can be taken:

- Leave early to avoid being marooned on flooded roads.
- Ensure you have enough fuel for your car.
- Follow recommended routes – although tempting, flooding is not the time for sight seeing.
- Monitor the weather broadcasts while travelling.
- Watch out for washed-out roads, earth-slides, broken water or sewer mains, loose or downed electrical wires, and falling or fallen objects.
- Be aware where rivers or streams may suddenly rise and flood, for example highway dips, bridge, and low areas.
- If the road ahead is flooded choose another route, do not attempt to drive over it – it is easy to underestimate the power of fast-moving water.
- If you are inside a vehicle and water is rising rapidly around you, abandon the vehicle immediately.
- If you have to leave your vehicle be very careful if the water is moving quickly, be wary of strong currents and debris.

Further Information

RoSPA Leisure Safety Information

<http://www.rospa.com/leisuresafety/information/index.htm>

RoSPA Drowning Statistics

<http://www.rospa.com/leisuresafety/water/statistics/index.htm>

RoSPA Road Safety advice <http://www.rospa.com/roadsafety/>.

Department for Transport, Transport Accident and Casualties website

<http://www.dft.gov.uk/pgr/statistics/datatablespublications/accidents/>

Advanced Driver training can help minimize road accident risk. Further information can be obtained by emailing furtherinfo@roadar.org or calling **0121 248 2099**.

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