



Water Safety..... Information

March 2003

Pond Safety

Water holds a particular fascination for young children under the age of five. Whether the water is held in a garden pond, a rainwater butt, a paddling pool or a bucket, a young child will invariably investigate.

Due to this natural inquisitiveness, 111 children under the age of five have drowned during the last decade, within the space of a few minutes of the supervising adult being momentarily distracted. It is impossible for any parent to supervise a toddler one hundred percent of the time; therefore it is essential that steps be taken to remove the hazard from the garden where the child will play.

Causes

Children aged between one and two are particularly at risk, with risk decreasing as age increases. There are probably three reasons for this profile:

1. *Between the ages of one and two, infant's mobility increases at a terrific, but irregular rate, such that they can escape parents' supervision and get into difficulties unexpectedly quickly.*
2. *Whilst mobility may increase, stability and co-ordination remain poor.*
3. *It is not until the age of four or five that children begin to understand the concept of danger, and begin to heed warnings given to them.*

Even the shallowest of ponds, can be lethal. From a child's perspective, a 500mm deep pond is equivalent to an adult falling into 1800mm of water, but the child would be unable to climb out of the water.

Advice

RoSPA advises parents to check the garden regularly. Containers holding rainwater should be emptied or sealed to prevent children gaining access, paddling pools should always be emptied and turned upside down after use, and garden ponds should be temporarily filled in with sand.

If parents wish to retain a pond, then rigid mesh or a grille can be used to create a secure cover.

The mesh must be firmly secured and regularly checked for signs of deterioration. This mesh or grille needs to be able to support the weight of a child and should remain above the surface of the water at all times. Grilles beneath the surface will not remove all of the risk of drowning especially to toddlers and crawling babies who could still end up face down in water and not be able to get themselves upright. Modular interlocking plastic grids that can be made to fit various shapes and sizes of ponds are available as well as steel mesh. Security grille suppliers and metal stockholders can cut steel mesh to size on request. The mesh should ideally be heavy duty (i.e. 6-8mm diameter wire) and so be self-supporting, and have a grid size of no more than 80mm x 80mm this size would ensure against entrapment. Thinner wire mesh will require

supporting with a frame. Depending on the size of the pond, a frame may also be required to provide stability and anchor points, the frame needs to be sited so that it is clear of the maximum water level height that the pond can reach and take into consideration any deflection or sagging that could occur. Any method used to secure and lock the frame in place should ensure that there is no risk of entrapment between any moving parts. The cover should be left in place until the child can recognise and understand danger.

Fencing materials, such as chicken wire, are unsuitable, as they will sag in the centre with the child's weight. A number of tragic accidents have also occurred when children have managed to crawl beneath wire, or pull wire aside. Drowning incidents have occurred in less than 300mm of water.

Fencing off the pond is only a partial solution, and can often-lead parents into a false sense of security. Gates, to provide access for maintenance, can accidentally be left open, and at three years many children can climb an unsuitable fence within 30 seconds. If the pond is fenced it must be of such a height and design that makes it unclimbable by young children. This is usually achieved through a vertical railed fence with bars no more than 100mm apart, this barrier would need to be no less than 1.1m in height, if it followed the safety principles of the building regulations. If a gate provides access, it must be of a similar design to the fence and be kept locked shut. Specific swimming pool gates have been designed with extended latch mechanisms (which are out of reach of children).

School Wildlife Ponds

Schools have a duty of care towards their staff, pupils and other who may be on their premises. A school is required to carry out a risk assessment and implement reasonably practicable measures to ensure an acceptable level of safety. When considering safety issues, and in particular the risk of drowning in a school pond, there are a number of factors to assess:

- **What are the hazards?**

Primarily the water itself, but also how it interacts with features such as: steep banks, silt, and overhanging branches.

- **Who might be harmed? And how?**

Young children, particularly under fives; the elderly; children with special needs; teenagers (peer pressure often leads to risk taking); lone workers; members of the local community. The prevention of slips, trips and falls should be considered, and hygiene issues such as the risk of Weil's disease and other water borne causes of ill health.

- **Evaluate the level of risk**

Decide whether existing precautions are sufficient, or whether more can be done. Assess factors such as: function, location, depth, edge gradients, supervision, user groups, information provision, effects of weather i.e. ice, summer swimming.

- **Record findings and policies**

Create normal operating policies which detail how the pond is operated, the measures which have, or not, been implemented, and the reasoning behind any decision. Also, create an



Water Safety..... **Information**

emergency action plan. This should be distributed to all staff, to let them know what to do on the event of an accident.

- **Monitor and review**

The safety policy should be monitored, as should the pond itself e.g. if signage is damaged, it must be replaced, and user behaviour should be monitored and the operating procedures altered accordingly.

The same principles should be applied to the assessment of pond dipping activities organised by schools. Reach poles, details of the risk assessment, and emergency action plans should be available to teachers supervising the activity.

Methods of Risk Control

Every pond and every school will be different, therefore overall guidance cannot be given, and this is why individual site-based risk assessments are required. However, in most circumstances, the following will apply:

- Access should be controlled and the pond effectively closed when not in use. This may be done with fencing, or vegetative barriers, or for smaller ponds, steel, rigid mesh fixed over the top of the pond. Fencing should be 1.1 metres high, with either 100mm spaced vertical bars, or steel mesh with an aperture of 25mm x 25mm.
- Pupils should be supervised.
- Edges that are open for access for pond dipping should be gently sloping, or flat and well defined. Where access is not required, or where the edge is steep, a protective barrier either in the form of marginal aquatic vegetation or fencing may be required.
- Clear signage should be used at the access points to the pond. For example, a sign stating 'No unaccompanied children', or, if ice forms during the winter 'Danger: thin ice'.
- Children and adults should wear appropriate footwear.
- For ponds, which are too deep for an adult to perform a wading rescue, suitable rescue equipment such as a reach pole, or a throw line should be provided.
- Any adult acting in a supervisory role should have read the operating policy and the emergency action plan. Training should include the opportunity to use rescue equipment.