

Swimming Pools and Spas

Our Environmental Health Section inspects local public pools and spas. Public recreational water facilities, such as public pools and spas, pose potential health risks if not properly maintained. Disease-causing organisms live and multiply in pool water that has not been properly treated and give rise to eye, ear, skin and intestinal infection. Inadequate chemical balance of pool water can also cause skin rashes and conjunctivitis. Environmental health assessments aim to ensure that public pools and spas are maintained in accordance with the requirements of the [SA Public Health Act 2011](#) and [Regulations](#).



A pool is considered to be open to the public if it is:

- Available for use by members of the public on payment of an admission or membership fee
- Available for use by people who live in, work in, or attend the premises where the pool is situated
- Available for use by people staying at:
 - A hotel, motel or guesthouse (eg. Bed & Breakfast)
 - A camping or caravan ground
 - Any other similar place where accommodation is provided on a temporary basis.

This excludes situations where the pool is used in connection with a single private residence and is only available for the use of residents or their guests and includes flats or units, with a shared swimming pool.

- When inspecting public swimming pools, Environmental Health Officers look at a number of requirements including the following:
- The pool must be fitted with automatic equipment that continuously analyses and controls the pH levels and the level of disinfectant in the water.
- The levels of disinfectant (e.g. Chlorine), pH and alkalinity must meet the required standards.
- The pool must be regularly tested by the operator and a log book of the results must be kept. The operator must have appropriate knowledge and experience in matters relating to the care, control and management of public pools.
- All equipment (e.g. filters) must be maintained in a clean and efficient condition.
- The pool must be kept clean, the structure must be sound, and the surroundings (eg presence of leaves and algae, broken tiles, rusty ladders, etc.) must be safe.

Examples of Professional pool and spa water testing equipment



Water Quality requirements of the SA Public Health Act 2011 & Regulations 2013

Management Standards

Managers are responsible for ensuring that the facilities they are providing are safe & hygienic & has appropriate knowledge and experience in matters relating to the care, control and management of public pools.

Chemical Balance of Pool Water

Public pools and spas must be fitted with an automatic dosing & monitoring equipment.

Test before the swim of the morning and at least once more during the day when the weather is hot or the pool is being used a lot.

Residual Free Chlorine	Level not less than 1 mg/litre and spas 4 mg/litre
Cyanuric acid	(Stabiliser used in outdoor pools) 30-50 mg/litre
pH	maintained 7.2 – 7.6
Total Alkalinity	concentration of between 60 & 200 mg/litre
Water Temperature	Swimming pools 26°C Spa Pools ideal 35-37°C

Filtration & Circulation

The pool & spa must be fitted with a filtration system that:

- Provides a continuous circulation of water through the filter
- Passes water in the pool through the filter as necessary to ensure that the water complies with the minimum disinfection levels

Total volume at least	every	6 hours for swimming pools
	every	hour for waterslides
	every	2 hours for wading pools
	every	30 minutes for spa pools in addition the water must be replaced at a rate of at least 20% every day its open for use or completely once a week completely drained.

(**Turnover rate** – the period of time it takes to circulate an amount of water equivalent to the total volume of the pool or spa through the filter.)

Whilst the pool is open for use if the filtration system ceases to operate or a reading indicates that the total chlorine concentration in the water exceeds 10 mg/litre the pool or spa must be immediately closed to the public.

Water Clarity

Maintain the water in a clean, clear condition so a matte black disc or a disc that contrasts with the colour of the bottom of the pool, 150mm in diameter, is clearly visible from above the water at the deepest part of the pool.

Depth Markings

For the safety of users the depth of pools should be prominently and clearly indicated, in writing which is at least 100mm in size, at:

- The minimum and maximum depths
- Locations where there is a sharp change in the gradient of the pool floor
- Intervals along the length of the pool; the frequency will depend upon the size and configuration of the pool
- Positions where they can be easily seen from the water and the pool side. Ladders should be provided at the deep and shallow ends of the pool.

Maintenance

Keep the pool shell and surrounds clean and in good condition. Vacuum regularly to remove leaves and other matter where bacteria, amoebae and algae can breed.

Ensure pumps and plumbing completely circulate the water as per the standard (see above) Keep pipes, filters and motors in good working order.

Clean and backwash filters routinely. Service other fittings to manufacturers' directions.

Spa pools

Spas and hot tubs present a perfect environment for bacteria and other organisms if not properly maintained, because of the warm water conditions. Warm water in Spa pools provides ideal conditions for the growth of micro-organisms which may cause skin, eye, ear and gastrointestinal infections, and respiratory infections that can be serious *Pseudomonas aeruginosa* or fatal eg. Legionnaires' disease.

Pool Safety

Drowning is one of the most common causes of accidental death among pre-school children. **Most drownings happen in domestic pools**, which are not completely surrounded by a safety fence. Safety fences are now a legal requirement for all newly constructed pools.

It is important to ensure that fencing:

- Has a self-closing gate (never leave it pinned open)
- Is constructed so that a child cannot climb over, through or under it
- Is well maintained. Plants should be kept trimmed so that there is a clear view from the house to the pool.

Remember – having a back door which opens directly onto the pool area is inviting danger!

Toddlers living in or near homes with swimming pools, and those who are visiting them, should be supervised continuously by an adult.

For further information relating to public swimming pools and spas, contact our Environmental Health section by telephoning 8842 6400 or visit the SA Health website at www.sahealth.sa.gov.au:

['Guideline for the Inspection and Maintenance of Swimming Pools and Spas'](#)



Using and storing chemicals

Pool and spa treatment chemicals are potent substances. **Handle them with care.** Store separately away from cleansers and fuels.

Read and follow instructions for use carefully. Buy only quantities that you can use within shelf life dates indicated on the containers.

Important rules

Don't mix chemicals together.

Add chemicals into water, don't pour water onto them!

Wash any spilt chemicals off clothes or skin at once, using plenty of water. If chemical is spilt, splashed or wiped into an eye, flood the eyeball with clean water and get to a doctor or hospital immediately.