

## The **first** layer of protection is **Constant Adult Supervision.**

The Pool & Hot Tub Alliance (PHTA) believes that the home pool, spa, or hot tub provides a healthy, relaxing recreational opportunity for families in their own backyard. PHTA has worked with nationally recognized safety groups to provide information to assist pool, spa, and hot tub owners in meeting their safety needs.

While the number of pools, spas, and hot tubs grows significantly each year, child drownings have been declining. Nevertheless, parents should be aware that any body of water poses a risk, especially for children under five years of age. A well-motivated toddler will eventually overcome a fence, barrier, or alarm when left unsupervised.

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*Parents should know that **adult supervision is the first and best way to prevent accidents. They should maintain constant visual contact with children whenever they are near, or can get near, any body of water. Unfortunately, most accidents occur when there is a lapse in supervision, even for a short time.***

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**Recognizing this, PHTA supports the concept of “Layers of Protection” for pools, spas, and hot tubs—an idea that is widely embraced by safety experts. “Layers of Protection” means that, in addition to supervision, the pool, spa, or hot tub is equipped with several devices to delay a child’s unsupervised access, or warn of the child’s presence.**

These layers should be aimed at protecting the area between the house and pool, since studies show that children are most at risk in their own backyard, when parents believe they are safely inside the house.

Primary barriers are devices that keep a child away from a pool, spa, or hot tub; for example, barriers that completely surround a pool, or a locking automatic safety cover. Owners should always check and comply with state and local codes and ordinances requiring fences or other barriers.



*Watch your children at all times.*

Other devices should always be used in combination with **at least one** primary barrier. PHTA suggests that all pools, spas, and hot tubs should be protected.

For aboveground pools always make sure to remove the ladder whenever the pool is not in use.

The information in this brochure lists a number of options that should be evaluated as possible components of a layered approach to safety. PHTA cannot endorse or evaluate the effectiveness of any individual product, but encourages parents to investigate several of the listed options in the context of the type of pool, spa, or hot tub they have, the ages of children likely to be in the area, and neighborhood and topographical factors. Some of the products listed here are new and represent significant technological advances over what was available just a few years ago.

For additional information, see ANSI/APSP/ICC-8 Model Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs, and the International Swimming Pool and Spa Code (ISPSA).

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*Don't be lulled into a false sense of security. PHTA reminds parents that these options are **backups to the primary means of accident prevention: Constant Adult Supervision.***

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## Layers of Protection Start with You.

### Members of the Pool & Hot Tub Alliance (PHTA)

are committed to the safe use and enjoyment of pools, spas, and hot tubs, and adhere to a code of business ethics.

To maximize your enjoyment, deal with an PHTA member firm. To locate an PHTA member in your area, visit [www.PHTA.org/memberlocator](http://www.PHTA.org/memberlocator).

For more free consumer safety information, visit:

[www.PHTA.org](http://www.PHTA.org)  
[www.PoolSafely.gov](http://www.PoolSafely.gov)  
[www.CDC.gov/healthywater/swimming](http://www.CDC.gov/healthywater/swimming)



To Help Protect Pool, Spa, and  
Hot Tub Users—Especially Children  
Under Five Years of Age

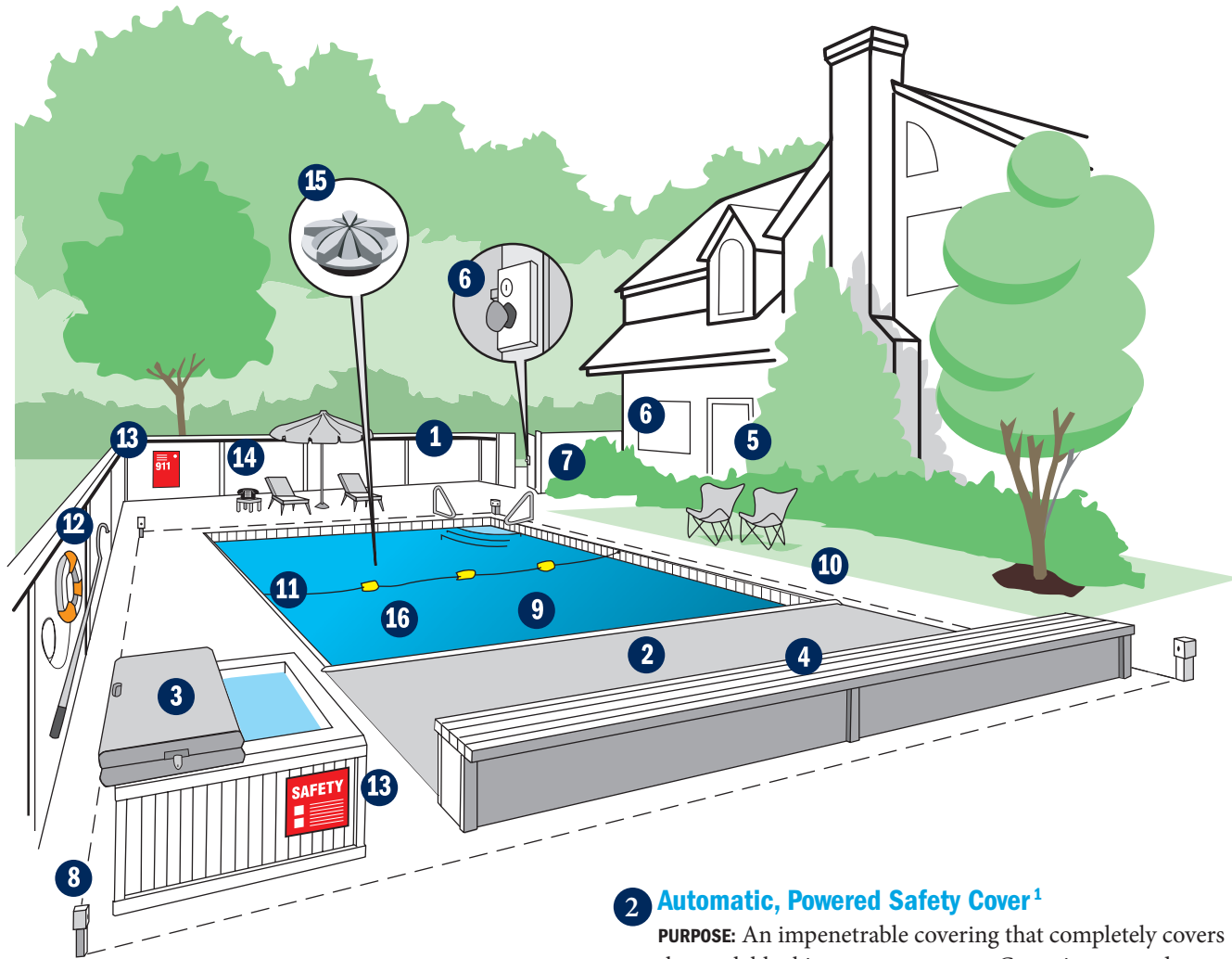


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**PHTA reminds parents that these barriers and devices are not a substitute for Constant Adult Supervision.**



**1 Fencing<sup>1</sup>**

**PURPOSE:** Designed to isolate the pool or spa with a minimum 4-foot-high (122-cm-high) enclosure. Where the dwelling forms one of the sides, and there are doors or windows leading from the dwelling to the pool area, one or more additional methods should be used. Fences must be non-climbable, have self-closing and self-latching gates, and comply with state and/or local requirements.

**TYPES:** Can include chain link, wooden picket, mesh, or other materials as permitted by local code. In some cases, natural topography can provide part of the barrier.

**2 Automatic, Powered Safety Cover<sup>1</sup>**

**PURPOSE:** An impenetrable covering that completely covers the pool, blocking access to water. Cover is operated electronically or by a key, independent of all other pool equipment. If relied on as the primary safety barrier, the cover should be always be closed and locked whenever the pool or spa is not in use.

**TYPES:** Must meet ASTM F1346 Standard performance specification for safety covers and labeling requirements for all covers for swimming pools, spas, and hot tubs

<sup>1</sup> Primary barrier    <sup>2</sup> Secondary barrier    <sup>3</sup> Additional devices

Secondary barriers and additional devices should be used in combination with at least one primary barrier.

**3 Lockable Hot Tub Safety Cover<sup>1</sup>**

Factory-built hot tubs are typically equipped with a lockable safety cover. If relied on as the primary safety barrier, the cover should be always be closed and locked whenever the hot tub is not in use.

**TYPES:** Must meet ASTM F1346 Standard

**4 Manual Pool or Spa Safety Cover<sup>2</sup>**

**PURPOSE:** An impenetrable covering that completely covers the pool, spa, or hot tub, blocking access to water.

**TYPES:** Must meet ASTM F1346 Standard

**5 Door, Screen, or Window Alarms<sup>2</sup>**

**PURPOSE:** Sounds when the door, screen, or window is opened.

**TYPES:** Should be listed in compliance with UL 2017. The deactivation switch should be located at least 48–54 inches (122–137 cm) above the door threshold.

**6 Self-closing/self-latching devices for doors and latching devices for windows<sup>2</sup>**

**PURPOSE:** Keeps all doors and windows leading to the pool, spa, or hot tub area securely closed, limiting access by children.

**TYPES:** a. Hinge pin replacement; b. Sliding glass door closer; c. Swing arm

**7 Fence Gate Alarm<sup>3</sup>**

**PURPOSE:** Sounds when fence gate is open.

**8 Infrared Detectors<sup>3</sup>**

**PURPOSE:** Wireless detection alarm that sounds when the area around the pool perimeter is entered.

**TYPES:** a. Light-beam; b. Body energy

**9 Pool Alarm<sup>3</sup>**

**PURPOSE:** An alarm placed in the pool that sounds upon detection of accidental or unauthorized entrance into the water.

**TYPES:** a. Surface water (wave motion); b. Pressure waves (acoustic); c. Electronic monitoring system

**10 Child Alarm<sup>3</sup>**

**PURPOSE:** An alarm clipped on the child that sounds when the child exceeds a certain distance or is submerged in water.

**TYPE:** Clip-on transmitter with in-home receiver

**11 Rope & Float Line<sup>3</sup>**

**PURPOSE:** Intended to warn children and non-swimmers of a change in the slope of the pool floor toward deeper water. Rope lines should remain in place, especially when children or non-swimmers are using the pool.

**12 Life Ring, Shepherd's Hook<sup>3</sup>**

All rescue equipment should be placed near the pool in an easily accessible spot, and should be kept in good condition. These can be used to pull someone in trouble to safety.

**13 Posted Emergency Information<sup>3</sup>**

Post all CPR, other emergency information, and warning signs, as well as the emergency phone number (911 or other emergency medical service number), near the pool, spa, or hot tub.

**14 Outside Telephone<sup>3</sup>**

A cordless or poolside telephone means parents don't have to leave children unattended while they answer the phone. Also, it's a good idea to have one handy to summon help, if needed.

**15 Anti-Entrapment Drain Covers and Fittings**

Current grates and covers help prevent body or hair entrapment. Make sure that drain covers meet the latest revision of ANSI/APSP-16. Safety doors should be installed in all pool cleaner wall suction lines.

*Never allow children to play in or near drains, suction outlets, or jets. Pools, spas or hot tubs with drain covers that are broken, missing, or not adequately secured, should not be used until the proper replacement has been installed.*

**There is no backup layer of protection for a missing or broken drain cover, that will protect against all types of suction entrapment.**

**16 Water Clarity**

Clear water aids in identifying soakers and swimmers in distress, helps swimmers avoid collisions, and is an indicator that the sanitizer and circulation and filtration systems are working. Poor water clarity suggests the presence of bacteria and/or algae or nutrients for their growth, and that the circulation and filtration systems may not be working efficiently to remove contaminants from the water.