



What is Entrapment?

Entrapment occurs when someone becomes stuck to a drain or suction fitting in a pool or spa, either from water suction, or from getting stuck in an opening—even if the pumps are turned off. It is a serious potential hazard, particularly for children, who are too small to break away.

How can I prevent it?

- Have your pool or spa inspected by a licensed industry professional. He can tell you if there's anything else you need to do.
- If your pool or spa has a missing, broken, or just old drain cover, have it replaced with one that is up-to-date and compliant with the new ANSI/APSP test standard.
- Never let anyone swim alone, especially a child. A responsible adult should always be either right with the child, or actively watching.
- Never run your pump at higher speeds than the recommended maximum. High water velocity can contribute to suction entrapment.
- Make sure your pool or spa is protected with locked doors and/or gates to keep out small children and animals when you're not there.
- Make sure the emergency shut-off switch is clearly marked by a permanent sign, easily visible in the pool or spa area, so that anyone can find and use it within seconds.
- Don't let anyone swim or play near drains and suction fittings. It's fun to feel the suction at a main drain—but it can be fatal.

The 2008 Virginia Graeme Baker (VGB) Pool and Spa Safety Act

The VGB Act was passed by Congress with the support of the APSP and its members. The Act imposes requirements for all drain covers, and requires retrofitting of all public pools and spas. The Act also encourages each state to adopt entrapment avoidance laws for residential pools and spas, and barrier requirements to prevent drowning.

The Standards on Protection

Use these two standards to protect your customers from the risk of entrapment:
ANSI/APSP/ICC-7 Standard for Entrapment Avoidance
ANSI/APSP-16 Standard for Suction Fittings



For more information, visit **www.APSP.org.** Also, read the U.S. Consumer Product Safety Commission entrapment guidelines at **www.cpsc.gov/cpscpub/pubs/363.pdf**.

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The Association of Pool & Spa Professionals®

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Entrapment Avoidance Guidelines



Courtesy of Michelle Viach

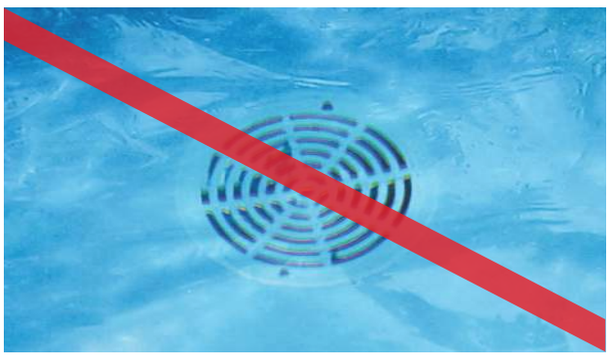
Keep your pool, spa, portable spa* or hot tub free from entrapment risk

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Avoid Entrapment!
Always follow these important rules:

- Never enter—and never let anyone enter— a pool or spa with a loose, broken, or missing suction fitting or drain cover.
- Never play or swim near drains or suction fittings—and never let children do it. If a drain cover is not compliant with the new standards, or is loose or broken, bodies or hair can be trapped, causing permanent injury or drowning.
- Immediately notify the owner or operator of a pool or spa if you see a loose, broken, or missing drain cover. The pool or spa should be closed immediately, and an industry professional should make the necessary repair or replacement.



*Example of a **non**-compliant cover*

There are 5 kinds of entrapment:



- **Hair entrapment:** Hair can become entangled or knotted in an outlet cover.
- **Limb entrapment:** Arms or legs can get stuck in an outlet with a missing or broken cover, even when the pumps are turned off.
- **Body entrapment:** Any part of the body that covers an outlet cover can be held down by the suction.
- **Evisceration:** Sitting on an unprotected sump or an outlet with a broken or missing cover can cause injuries or disembowelment.
- **Mechanical entrapment:** Fingers, toes, and items such as jewelry or a bathing suit can become entangled and stuck in a non-compliant drain or cover, even when the pumps are turned off.

There is no backup in the marketplace today for a missing or broken drain cover that will protect against all five suction entrapment hazards.

You will need to decide what works best for your new or existing pool or spa—whether it's multiple drains, a single "unblockable" main drain, a safety vacuum release system, an equalizer line, or any of several solutions.

Make sure your builder and service professional know about the *ANSI/APSP-7* and *ANSI/APSP/ICC-16* standards (see back panel), and will build and service your pool to meet them.

Take these steps to keep your pool, spa, portable spa* or hot tub safe and free from entrapment risk:

❶ Have your pool or spa inspected by an industry professional.

❷ Replace any broken, missing or non-complaint outlet covers with a cover marked: **VGB2008**, and/or **Conforms to ANSI/APSP/ICC-16.**

New, anti-entrapment outlet covers are available and, according to federal law, must be used in all commercial pools. They are usually domed, not flat, and have openings that keep out fingers and prevent hair entanglement. Compliant outlet covers state, right on the cover, where they can be mounted, the maximum flow rates they can handle, and when they must be replaced.



*Examples of **compliant** covers*

❸ If your home pool or spa has a **only one main drain,** it is strongly recommended that you use an approved anti-entrapment cover, and also do one or more of the following:

- eliminate the drain or reverse the flow
- add a second, properly spaced outlet (drain)
- install an SVRS (safety vacuum release system)
- install an automatic pump shut-off system
- install a suction limiting vent system
- add a gravity drainage system.

* Portable factory-built electric spas/hot tubs that conform to UL1563 shall be deemed to be in compliance with these guidelines.