

# Dry Drowning: What Every Parent Needs to Know

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**It's not often that I beg parents to bring their kids into the ER, but that's exactly what I did when I heard about a child with a dry-drowning episode.** He knew how to swim but he inhaled some pool water by accident. He coughed a bit, but a few minutes later was back in the pool. The child looked fine, the parents reassured me. It was bedtime, and everyone was tired after a long day in the sun at the pool. "We'll let him sleep, and if he's having any issues in the morning we'll take him into his pediatrician," the father told me.

"No, you need to come to him. He didn't want to reluctantly come, forking with annoyance. **Then I x-ray that revealed lungs, and his including a low sodium** the exam room changed fear. This was real. Their



the ER now," I told believe me. They over their \$250 ER co-pay **showed them his chest extra fluid in his laboratory results level.** The atmosphere in from annoyance to child was drowning.

**Dry drowning scares me.** The kids can look fine— they just had a little sputtering and coughing episode after a scary moment while swimming. Occasionally dry drowning can happen in the bathtub. But sometime within the next 24 hours their lungs start a massive inflammatory reaction to the water they inhaled into their lungs. Sometimes they need a ventilator to breathe for them, and drugs to keep their blood pressure up. But the worst cases of dry drowning are the children I never see, the ones who were put to bed and never wake up in the morning.

My patient was ultimately fine— he was admitted to the hospital overnight and treated with oxygen and IV fluids, but by the next day he was well. He was a lucky one.

**There is some debate about the definition of the term "dry drowning"— usually this term refers to situations where some water got in a child's lungs and the child has a severe inflammatory reaction to the water hours after the incident.** This phenomenon is also called "secondary drowning," or "near drowning." There is another phenomenon, also sometimes called "dry drowning," in which suffocation occurs but no water ever entered the lungs. In these rare situations, the larynx (voice box) spasms and stays shut, causing involuntary suffocation. Sometimes this spasm is triggered by water droplets hitting the larynx, or a sudden high speed submersion under water such as off a high-dive or a high speed water slide. This latter form of dry drowning generally doesn't occur when kids are simply swimming or playing in the pool. These patients are also immediately ill. They may never come up from the water.

**What are the warning signs and symptoms of “dry” or delayed drowning? When do parents have to worry about a child who had trouble while swimming? These are reasons to bring your child to the Emergency Room, even if they look fine:**

- **Coughing:** Any person who has persistent coughing after playing in the water is at risk for water in their lungs. You may be thinking, “but this happened to me a million times when I was a kid.” But what was your oxygen level while you were sleeping that night? You may have dropped and no one ever knew. Don’t go to bed worrying, just take your child in for evaluation.
- **Water rescue:** Any person who was submerged in water and came up struggling, especially if he or she had to be retrieved from the water by a lifeguard, parent, or other bystander needs medical evaluation. This may seem obvious, but I’ve seen kids get back in the pool and play after a water rescue.
- **Amnesia:** Any person who was unconscious underwater or has limited memory of an incident that occurred in water needs immediate medical care. I had a patient once who had an underwater head injury with loss of consciousness, but finished her swim meet before going to the ER. I’m just thankful she didn’t drown or bleed into her brain during that second race.
- **Behavior change:** If your child feels sick, acts too sleepy, or has a change in mental status/behavior after a day at the pool, take it seriously. The worst thing you can do with a child who may have inhaled water is put them to bed. They need immediate medical care.
- **Vomiting:** Vomiting after a day of swimming can be due to waterborne infectious disease (poop in the pool water...), but can also be a sign of severe illness due to dry drowning.

Ultimately, the best way to prevent drowning is to teach kids how to swim. The best time for swim lessons is about age four. Children under age four may benefit from lessons to get acclimated to the water, but don’t count on lessons to keep your toddler safe in the water. Instead, read these 5 tips for safe water fun, quit worrying, and enjoy your day at the pool!

<http://childrensmid.org/browse-by-age-group/toddler-pre-school/dry-drowning-every-parent-needs-know/>

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