



## Drowning

Most commonly pets will drown in back yard pools or bodies of water such as ponds, but they are also at risk when taken boating or to the beach. There are a number of ways you can help keep your pet safe, starting with preventing access to water when your pet is not supervised. Pets that have poor conformation to swim (such as bulldogs) should be kept away from water all together. There are also life jackets made specifically for pets.

Being attentive to your pet is vital around water. Is your dog older and liable to tire quickly? Is your puppy so rambunctious that he will keep swimming until he is exhausted? If your backyard pool has steps, your dog needs to be taught to swim to the steps to get out. If your pool does not have steps, there are ramps that you can purchase to allow your dog (or any other unfortunate critter) to climb out. In open water, keep swimming sessions short and make sure your dog is taught to return to you when called. And always make sure to offer your pet frequent access to cool drinking water.

There several types of drowning; fresh water, salt water, and dry drowning. Whatever the type, drowning or near drowning should always warrant immediate veterinary attention. Even if your pet seems to be recovering, life threatening secondary complications can arise later on. Fresh water drowning occurs when a large amount of fresh water is taken into the lungs. In addition to the immediate crisis of being unable to breathe due to water in the lungs, the fresh water also washes away the liquid in the lungs that helps keep the small airways open (called surfactant), and may result in collapse of the lungs. Material within the water can cause significant irritation and/or pneumonia. The fresh water can also be absorbed into the body from the lungs and cause fluid overload. The lack of oxygen (hypoxemia) can cause electrolyte imbalances, brain damage and cardiac arrest. Salt water drowning poses many of the same problems as fresh water drowning. Saltwater also destroys the surfactant in the lungs. Unlike fresh water, salt water is not quickly absorbed into the body and problems with fluid overload are typically not seen. Dry drowning occurs when the larynx spasms closed in response to contact with water, effectively preventing breathing, although no water is taken into the lungs. As with "wet" drowning, this causes hypoxemia, eventually leading to electrolyte imbalances, brain damage, and cardiac arrest.

Once removed from the water, if a pet is not breathing they can be laid on their side and breaths can be given by holding the mouth and lips closed with your hands and breathing into their nose. If they are still not breathing after several attempts, chest compressions can be done. It is similar to human CPR, but with the pet on their side instead of on their back like a person. They should be taken to a veterinarian as quickly as possible. Even pets that seem to be doing ok once they are removed from the water should still be examined and possibly hospitalized and monitored for secondary complications such as hypothermia and pneumonia.

Pets who are hospitalized for drowning will have blood work checked to assess their metabolic status, including their electrolytes, an IV catheter placed, oxygen supplementation if needed and x-rays. Antibiotics are not typically given unless a pet shows signs of developing pneumonia. Prompt aggressive treatment can make the difference between life and death.