

“It Doesn’t Look Like They’re Drowning”

How To Recognize the Instinctive Drowning Response

By Aviation Survival Technician First Class Mario Vittone and Francesco A. Pia, Ph.D

In the summer of 2002 at U.S. Coast Guard Air Station New Orleans, a young aircrewman had just returned with his crew from Lake Maurepas, west of Lake Pontchartrain. A boat with a family of five aboard had capsized during a squall, and he had deployed to assist the survivors. He began telling his story:

“We arrived on scene and all five of them were in the water; some clinging to debris, some not. As we hovered above the scene, two of the victims appeared to be looking up at us, treading water. I hurriedly changed into my wetsuit when I heard the pilot say, ‘They don’t look like they are in any immediate danger. They can wait for the boat.’

I said, ‘No Sir, they look like they are drowning!’”

Good crew resource management prevailed. The pilot put the swimmer in the water to gather all the victims together and to make sure they were all safe until the sheriff’s boat arrived. It was a successful rescue and everyone did a great job. But why was there such a difference between the two assessments? Why does one person think that there is no immediate danger, and another think that danger is imminent? Doesn’t everyone who works on (or above) the water as rescue professionals know what drowning looks like?

Most people assume that a drowning person will splash, yell, and wave for help; and why wouldn’t they? That’s what we see on television. Without training, we are conditioned first to think of drowning as a violent struggle that is noisy and physical. It is not.

Coast Guard rescue crews are less likely to see a person drowning than nearly every other water rescue professional (beach and pool lifeguards). Our relative distance to the accidents and distress calls to which we respond usually puts us on-scene well after persons who may experience problems have done so. However, if you play this game long enough you will see a victim in the water. You may even be the one directing him or her to get in the water. Extenuating factors such as increased levels of stress, secondary injuries, and environmental factors can increase the likelihood of distress and/or drowning in the victims we find. It is important that we learn to recognize the behaviors associated with aquatic distress and drowning, so we can make informed decisions during emergencies.

The *Instinctive Drowning Response* represents a person’s attempts to avoid the actual or perceived suffocation in the water. The suffocation in water triggers a constellation of autonomic nervous system responses that result in external, unlearned, instinctive drowning movements that are easily recognizable by trained rescue crews.

In the case of our aircrew above, the victims outside the rotor wash, looking “up” (at the helicopter) appears from the pilot’s view to be doing fine and able to wait the five minutes for the boat to arrive. When in fact, they may be 30 seconds from going down for the last time. The splashing and waving that one expects from false training or dramatic conditioning (television) was not there.

This is not to say that a person in the water that is shouting and

waving is fine and doesn’t need assistance. They are in what is known as *aquatic distress*. They are not drowning, but realize they are in trouble and still have the mental capacity (and lung capacity) to call for help.

Our rescue crews must know what drowning looks like. Recognizing panic and distress in the water is something that they must learn and train for in order to perform their jobs effectively.

Characteristics of the Instinctive Drowning Response:

1. Except in rare circumstances, drowning people are **physiologically unable to call out for help**. The respiratory system was designed for breathing. Speech is the secondary, or overlaid, function. Breathing must be fulfilled, before speech occurs.
2. Drowning people’s mouths alternately sink below and reappear above the surface of the water. The mouths of drowning people are not above the surface of the water long enough for them to exhale, inhale, and call out for help. When the drowning people’s mouths are above the surface, they exhale and inhale quickly as their mouths start to sink below the surface of the water.
3. **Drowning people cannot wave for help**. Nature instinctively forces them to extend their arms laterally and press down on the water’s surface. Pressing down on the surface of the water, permits drowning people to leverage their bodies so they can lift their mouths out of the water to breathe.
4. Throughout the Instinctive Drowning Response, drowning people cannot *voluntarily* control their arm movements. Physiologically, drowning people who are struggling on the surface of the water cannot stop drowning and perform voluntary movements such as waving for help, moving toward a rescuer, or reaching out for a piece of rescue equipment.
5. From beginning to end of the Instinctive Drowning Response people’s bodies remain upright in the water, with no evidence of a supporting kick. Unless rescued by a trained lifeguard, these drowning people can only struggle on the surface of the water from 20 to 60 seconds before submersion occurs.