



Notice on Breath-Hold Diving

Breath-Hold diving is specifically forbidden by the U.S. Navy Diving Manual except in formal supervised training evolutions or specific restrictive operations. Breath-Hold diving combined with hyperventilation is expressly forbidden.

Breath-hold diving coupled with hyperventilation is an extremely dangerous practice. Carbon dioxide (CO₂) is the brain's stimulus for breathing. When CO₂ builds to a certain level, it signals the breathing centre of the brain that it's time to breathe. Hyperventilation postpones this signal to the brain, and thus delays the warning signals the diver is running out of air. Hyperventilation lowers the amount of CO₂ in the blood and fools the body into believing it doesn't need to breathe even if available oxygen is nearing depletion. As the oxygen level of the blood is not increased by hyperventilation, this is very dangerous and may result in drowning. Low oxygen levels in the blood stream will cause loss of consciousness.

Exercise compounds the problem by increasing the rate of oxygen consumption and drowning can result. Hyperventilation is so dangerous that the U.S. Navy diving manual issues a specific warning in red about it and professional aquatics organizations caution against it.

Many young men and women try breath-hold diving, often paired with hyperventilation, to foolishly test their endurance and take themselves beyond the reasonable limits of safety. What they don't realize is that they are unable to determine when they are in danger because they will simply pass out while underwater and drown.

It is imperative that all no one seeking to emulate SEAL training should practice breath hold diving. Pushing the limits on breath-hold diving, especially combined with hyperventilation, can cause sudden underwater loss of consciousness and death.

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Excerpt from U.S. Navy Diving Manual:

WARNING Hyperventilation is dangerous and can lead to unconsciousness and death.

Breathhold Diving Restrictions. Breathhold diving shall be confined to tactical and work situations that cannot be effectively accomplished by the use of underwater breathing apparatus and applicable diver training situations such as scuba pool phase and shallow water obstacle/ordnance clearance. Breathhold diving includes the practice of taking two or three deep breaths prior to the dive. The diver shall terminate the dive and surface at the first sign of the urge to breathe. Hyperventilation (excessive rate and depth of breathing prior to a dive, as differentiated from two or three deep breaths prior to a dive) shall not be practiced because of the high possibility of causing unconsciousness under water.