

limited to strictly controlled conditions. This is particularly important as swimming activity can continue for a time after consciousness has been lost, a fact noted in swimming pool fatalities.

Having read so many reports of the deaths of breath-hold swimmers in swimming pools, and of highly experienced spear fishermen in the sea and known one who survived with marked loss of cerebral function, I believe that physiologists have a social duty to ensure their efforts are not viewed as encouraging public competition in this activity. Although this information has value in increasing our present imperfect understanding of the complex physiology involved, there should also be a recognition of the unintended flow-on effects of such research. While this paper records the results of carefully supervised dives it may be viewed as justification by others for their efforts to become successful in such competitions but who practice, for financial reasons, without the necessary safety support.

Reference

- 1 Schagatay E. Predicting performance in competitive apnoea diving. *Diving and Hyperbaric Medicine*. 2009;39(2):88-99.

Douglas G Walker, principal researcher for Project Stickybeak since its inception in 1972, is now retired from medical practice but continues an active interest in the investigation and reporting of diving fatalities.

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Key words

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Reply:

Increased reporting improves safety

Freediving is a growing recreational and competitive sport. My answer to Dr Walker's concern that reporting on competitive freediving may encourage others to try this on their own is that only by increasing the general knowledge of the dangers of the sport will we be able to avoid them. Having taught freediving to children for nearly three decades, I am aware of the possible risks and how to avoid them.

Any responsible person can freedive without the risk of drowning by abiding to two simple rules of freediving.

- Never dive alone.
- Never hyperventilate before diving.

For those interested in learning how to do it properly, there are many diving clubs and schools teaching freediving at basic and advanced levels.

However, when freediving is taken to its extremes in competitions, it does, as do several other sports, include calculated risks and necessitates good backup safety systems to deal with them. For the past six years, I have worked with the world elite of freediving or "Apnea" in physiological studies at competitions. In safety discussions with the athletes, I have been impressed by the concern taken and the methods developed by these divers to avoid injury. There have been no accidents in organized competitions during that time, and much has been learned about safety from these elite divers, which can contribute to improved safety in recreational diving. My recent review of the physiological limits of static apnoea, however, did not focus on safety aspects, as several other recent papers have dealt with this.¹

I respect and share Dr Walker's desire to avoid injury and fatalities, but do not understand how this could be achieved by not writing about the physiology of freediving. Instead, should we not increase the reporting and improve common knowledge? Dr Walker's comments basically imply that we should not write about this sport at all, as it may be dangerous to uninformed people. For me, this is a contradiction; by understanding and reporting the risks we may instead avoid them. I do not believe freediving will go away if we as physiologists and physicians decide not to report and study it.

Describing the achievements of elite apneists with depth records now beyond 100 msw and breath-hold times over 10 minutes' duration, I believe will not encourage individuals to try this for themselves, as the records achieved are so clearly beyond normal performance. We still report Everest climbs without including the warning "don't try this on your own", even though high altitude climbing probably involves a far greater risk than diving, breath-hold or scuba. It is obvious that this cannot be done without proper knowledge and training, and only by certain individuals and with serious safety measures taken to support their activities.

Reference

- 1 Pollock NW. Breath-hold diving: performance and safety. *Diving and Hyperbaric Medicine*. 2008;38(2):79-86.

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