Dr Richardson replies:

Dear Editor,

Thank you for the opportunity to respond to the comments of Dr Carl Edmonds. Despite his personal and historical bias against 'DIOs' such as PADI, I believe Dr Edmonds reinforces a vital message for diving safety and for the importance of addressing complacency in avoiding morbidity and mortality in divers. Even though the tragic case studies he uses are thirty years old, from an era when diving standards and practice were not as well developed as today, they serve to reinforce the importance of vigilance when it comes to diving safety and supervision, especially for young divers. As programme and standards developers, my colleagues and I share a personal commitment to this end in our professional practice.

Dr Edmonds may be surprised to learn that we have more

in common than he thinks. However, his allegation that we have taken a minimalist approach to the topic of diving programmes for children is simply ludicrous. Had he taken the time to read our publication *Children and scuba diving*: a resource guide for instructors and parents, 1 and the extensive body of PADI standards and educational material addressing this topic, he would find that many of his criticisms and concerns are actively addressed in detail. Given his lack of background and experience in instructional design, training and education, I find it disappointing that he persists in ignoring or dismissing out of hand sophisticated programmes, methods and techniques of the modern educational approach to diver education. Rather, he seems stuck with his pre-existing, and very dated, negative perceptions. His comments, that PADI programme and safety limitations on junior divers "even if applied would not prevent child deaths", are not supported by empirical data and therefore purely speculative and reflective of his negative bias. Further to this, it would appear that Dr Edmonds might believe that introducing young people to scuba diving is a new development lacking an empirical experience base, which it is not.

Does scuba diving have risks for children? In the event that he misunderstood my arguments, or felt I was overwhelmed with pecuniary interest, let me be clear – yes, it does. Considering that it has risks for adults, obviously scuba diving has many potential risks, which include drowning, lung over-expansion injuries, decompression sickness and middle ear injuries. There are also some theoretical concerns presented specific to children scuba diving because they are still growing.

The article I submitted to the SPUMS Journal attempted to provide a rationale for the programmes that PADI has recently introduced to mitigate these risks, not eliminate or understate them. Safety is the very basis for diver training and, to be fair, the outcomes of poorly organised diver training in the 1960s and 1970s were much worse than those from today's training paradigms. Even by the crudest indicator, diver mortality data are supportive of this fact. Each year, millions of scuba exposures occur, far more than did in the 'old days'. There are far more participants, far more exposures, and fatalities are not increasing. In short, modern diver training, education, supervision and practice are a vast improvement over the past.²

Anyone involved in scuba diving, adult or child, faces some risk of death or permanent, debilitating injury. Nothing aside from abstinence from diving can eliminate these risks, yet we believe that scuba diving is a reasonably safe activity. Assuming that abstinence is an unrealistic option, we have attempted to put together a comprehensive and incremental age-based programme of guided experiences for younger people. It is common sense that, while scuba has a lower accident rate compared to certain other sport and adventure activities, the potential severity were an accident to occur is much greater.

Children interested in diving, and their parents, need to accept these risks before they participate. PADI and other organisations such as SSI have created educational materials and videos such as the 'Youth Diving: Responsibility and Risk' programme to explain these risks so both parents and children can decide for themselves whether to accept them.

When faced with potential risks and hazards, the easiest answer may appear to be 'no', but that may not always be the best answer. The truth is, there is no way to protect children from all risks they face in life. Children will grow up to be adults who face risks. Establishing responsible boundaries and monitoring a child's behaviour are important in order to avoid disaster. PADI programmes involving children handle the potential risks the same way. Limiting depths, requiring specific adult supervision and setting minimum ages for differing activities effectively

manages and mitigates the potential risks of diving, including those unique to children. Parental involvement helps ensure that children respect and stay within these limits. Establishing a link between scuba instruction and a child's broader world requires communication between the instructor and parent. Parents participate in the instruction process, either as students in the same class, or by interacting with the child and study materials. Is this disingenuous? I think not.

The fact is, thousands of youngsters enjoy diving every year and have done so for decades. Dr Edmonds chooses to ignore the long-standing empirical database of the CMAS, and other similar programmes cited in my article, and focuses extensively on my reference to SNUBA, demonstrating a selective bias in his arguments. It is interesting that he spends four of his eight paragraphs of critique of my article of over 60 paragraphs refuting a point made regarding SNUBA, which was all of three sentences long. If one discounts the brief discussion of SNUBA from my article and the safety record that company claims, my arguments and rationale stand.

That said, even with proper supervision and within limits, accidents happen, but they are rare. In perspective, one need only look at other activities children enjoy that carry the potential for severe injury, permanent disability and death. These do not dissuade children from these activities, nor their parents from allowing them to participate. Their lack of adult learning skills and behaviours doesn't exclude children from learning to dive, any more than it excluded children from learning to ski, target shoot or play football. To the contrary, various diving experiences and programmes foster overall learning and growth and ask for reasonably mature behaviour, rudimentary mastery of physical and scientific principles, attention to following rules and guidelines, self-control and motor-skill mastery.

As for my utilising "distraction techniques" to argue 11 "Dorothy Dix questions", these questions were framed by the diving medical personnel at DAN when consulted on the matter and do not reflect a selection bias on the part of this author. Finally, I must correct Dr Edmonds and state that PADI requires all children to dive under the supervision of a dive professional, adult or parent, period.

Drew Richardson, AS, BSc(hons),MBA,DEd, President, PADI Worldwide E-mail: <drewr@padi.com>

References

- 1 Children and scuba diving: a resource guide for instructors and parents. Rancho Santa Margarita: International PADI, Inc, 2002
- 2 Bennett and Elliott's Physiology and Medicine of Diving, 5th edition. Brubbak AO, Neuman TS, editors. 2003: 51-54