

**DIVING'S WELL KNOWN FACTS MAY FACE
THE ACID TEST SOME CONSEQUENCES OF
THE "AMERICANS WITH DISABILITIES ACT"**

Douglas Walker

There are said to be only two certainties, death and taxes, and the impact of these can usually be significantly reduced, although not completely eliminated, for anyone who has sufficient money to employ those skilled in dealing with these matters. But now there is a new danger which is likely to prove rather more difficult to keep at bay as it is being brought to us by those terrible twins, Noble Sentiments and the American Legal System. It has a potential to spread like a plague to other countries, even Australasia. The Americans with Disabilities Act¹ appears to be designed to prevent employers excluding those who are thought to have some "possibly-adverse" health factor from being employed, while presumably retaining the presumption that there is no such thing as an "accident" and that the employer should anticipate and remove all, even remotely, dangerous elements from the employee's environment. The critical element now is that the "adverse medical factor" must have been proved to be a serious risk to the person and one which cannot be eliminated by changes in the work situation.² To believe this approach to the rights of those with disabilities will only involve work situations in America would be to misread the augers. Those who remember the injustice and disruption caused when an American court awarded a diver damages for his back trouble, after which lawyers and insurance companies decreed that nobody with a vertebral abnormality shown by X-ray should be employed in commercial diving³, will smile wryly at this complete reversal of employment guidelines. So too will the British Sub-Aqua Club after fighting off the claims of a diabetic diver's widow after he suffered decompression sickness and later committed suicide.⁴

The critical new requirement appears to be the need to demonstrate not that the medical condition is generally believed to constitute a potential danger, but that it has been investigated and proved to be a serious danger. For example, as epileptics are "forbidden" to dive there are no sources of information about the degree of risk this condition constitutes to any diver. Therefore there is no statistical basis on which to justify denying to him (or her) a medical finding of fitness to dive. There will certainly be an "expert" neurologist willing to testify that such people should be allowed to pursue any occupation or recreational activity they wish with as great freedom as any other member of the community. However if such a person later had a fit while diving and drowned or suffered a cerebral arterial gas embolism it is easy to predict there would be a flood of claims raised on behalf of the victim and no problem in finding expert witnesses to pillory the doctor who had provided such a "fitness" certificate. There appears to be only one option an examining doctor can

safely take. That is to state whether the applicant meets standards set by lawyers and to offer no opinions concerning fitness, leaving risk assessment to statisticians (and lawyers) who have created the situation. Ah! Brave New World!

Although this American act will, at present, only apply to those who are seeking employment as commercial divers and not those intending to dive recreationally, it will certainly be capable of application to those seeking to become diving instructors in America. There are close ties binding the major diver training organisations here in Australia and New Zealand to their US parents. The problems which this could cause will provide a bonanza for enterprising legal minds. It will be an interesting situation if diving instructors are to be medically evaluated to a less rigorous standard than that by which their pupils are judged!

Before dismissing this as an academic and scaremongering approach one must remember the slender data base for both course content and medical standards. It is often claimed that there are absolute, relative and temporary medical contraindications to safe diving and these define whether or not each applicant is assessed as having medical fitness to dive. Although such medical fitness standards have certainly been quoted with approval, where this has helped a plaintiff, they have yet to be seriously challenged in an action claiming that they are without adequate statistical basis and based on beliefs rather than facts. This criticism could well be correct. This should not be taken to mean the accepted medical standards are incorrect or unreasonable, merely that they are only opinions, not statistically validated facts. In any Court of Law a declaration that one's beliefs are based on common sense, or a "gut feeling", would carry little weight. This American act requires that the medical condition would constitute a serious, and unavoidable, risk in the proposed work situation. The common medical beliefs in Australia and New Zealand concerning the ineligibility for diving of those with a history of asthma, diabetes or epilepsy could well be contrasted with opinions in the UK⁵ and a decision reached on purely legal rather than medical grounds.

There is no data to show that practice of out-of-air ascents, one of the shibboleths of American diving organisations, is of value. Nor has practice of in-water ditching of equipment, of practicing shared-air ascents, or in-water CPR been shown to be of value for those on basic courses. This is not to say that they are without value, only that the new American act could result in these (and other) matters being declared to be "unreasonable requirements".

This result would be a deserved, but (possibly) regrettable, result of the diving community's chronic failure to collect data and to practice case analysis. There has been (and largely still is) a reliance on anecdotal evidence and selective, sporadic reporting of cases in both

the medical and instructor organisation arms of the diving community. The power of the legal system to subpoena incident reports and confidential medical records has, naturally, played an important part in perpetuating the habit of avoiding a written record of misadventures. We hope that some day the Law will recognise the value of research to identify and reduce dangers and seek to reward safety efforts rather than hamper them.

What is the answer to this potential problem? The same one that was required when the hyperbaric world was put in turmoil by the paper which questioned the claims that hyperbaric oxygen therapy was useful, or even an effective, modality. Only then was it realised for the first time that clinical impressions might be a good guide but lacked conviction without a sufficiency of hard facts to back them up. Indeed the situation can best be managed by the diving community taking seriously, and actively supporting, the creation of a diving data bank with input from all the various groups involved in recreational and commercial diving. It would be nice if this proposal could be implemented before someone or some organisation is called upon to appear in a Court to face a well prepared

legal cross examination concerning the factual basis for some long held and cherished beliefs, and on the documentation and data justifying past actions and opinions.

References

- 1 Americans with Disabilities Act. 29 CFR Pat 1630 et seq. 1992
- 2 Miniclier PC. The Americans with disabilities act: the disabled diver in commercial diving. *Pressure* 1993; 22 (2): 1,3,5,6
- 3 Low back X-rays and diving fitness. *SPUMS J* 1980; 10 (4): 4-8
- 4 BS-AC on trial. *SPUMS J* 1981; 11 (4): 10-11
- 5 BS-AC medical standards. BS-AC, 1990

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DIVING DOCTOR'S DIARY

DIAGNOSIS OF A DIZZY DIVER

Carl Edmonds

Case report

A 30-year old male, of artistic nature, but also a gentleman adventurer, took up diving in 1994. He completed 16 non-decompression dives in 5 months. He was also an aviator, sky diver, hang glider, snorkeller, swimmer and sailor.

One month previously, in calm seas, he performed two beach dives on the one day, both to a maximum of 10-15 m and with a surface interval of 90 minutes. He was nowhere near decompression requirements. The total time of each dive was about 35 minutes, of which the last third would have been spent at depths of less than 5 m.

He felt a slight tendency to unsteadiness after the first dive, but only in retrospect. On the second he felt nauseated and vomited after he ascended, whilst swimming back to shore. He made the interesting observation that, if his eyes were closed and he tilted his head, he would notice a spinning sensation. The dizziness only lasted for an hour or more, but he then felt tired and exhausted.¹

He was seen by a general practitioner who observed haemorrhage on the tympanic membrane, and noted the presence of nystagmus. Despite the relatively minor dive exposure, it was felt prudent to dispatch the diver to a recompression chamber, and a full course of treatment was given, presumably because of the possibility of decompression sickness (DCS) causing generalised and cerebral symptoms.²

A month later he returned to his diving and descended to 12 m for 35 minutes. Again, about a third of this would have been spent doing a very slow ascent. On the surface swim, when returning to shore, he noted that if he looked to his left he would become dizzy. He then observed that he was unsteady while walking. The dizziness increased if he closed his eyes. "This was not my normal balance, and it stayed like that for an hour or so". His hearing felt "not clear", and muffled.³ He was also aware of a high-pitched continuous sound on the left side. He then slept for hours, being tired and exhausted. By the next morning the tinnitus had gone.

He took aspirin,⁴ on medical advice, and stayed in bed.

When he was seen two days later, he had decided not to undergo another proposed recompression treatment, as the previous one didn't seem to do much good. He then