

A Bent Diver

is not necessarily a bad diver

By Tammy Holter

THERE IS AN UNDERLYING BELIEF THAT A DIVER WHO DEVELOPS DCI WAS SOMEHOW NEGLIGENT. TAMMY HOLTER OF SCUBA DO ZANZIBAR DISPELS THIS MYTH WITH A PERSONAL ACCOUNT OF “UNDESERVED” DCI.



Image by Michael Hindley.

NOBODY likes sports injuries. But, decompression illness (DCI) is a rather unique sports injury. When DCI occurs after a dive, the psychological and social dynamics are very different from those after spraining an ankle while jogging. There is much more at stake.

Part of the problem with DCI in particular is that there is an underlying belief that a diver who develops DCI was somehow negligent in following the dive plan, incompetent in managing his/her decompression schedule and ascent rate, or is simply lying to cover a mistake. The question is: why do we think this way? Why do dive centres, dive leaders and the divers themselves tend to assume that an injured diver must be a bad diver. Given the stigma, it is not surprising that divers who discover they are developing suspicious symptoms find themselves torn between two options – speak and face potential scorn and criticism or stay silent and face the potential consequences to your health. Mind you, there is no guarantee that the consequences won't demand treatment in the end anyway. And then there is the additional disgrace of not speaking up sooner – not a great place to be. No wonder divers deny symptoms or, if they do admit them, they go to great lengths to try to prove their innocence, even to the point of blatant dishonesty.

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On the flip side, there is often pressure from the diving operation, charter or resort to suppress symptoms. They have a reputation to protect and, let's be frank, diving injuries are bad for business. Amongst competing dive operations, the misfortune of having an injured diver often becomes a gossip frenzy. Not infrequently, it is offered as a valid basis for comparing the safety and quality of respective dive operations. Then, in addition to the bad PR, a diver with DCI disrupts further diving and recreational activities. At the very least the “holiday feeling” is lost. Often, entire vacations are ruined, other guests are inconvenienced and revenues are lost. So there is a great temptation from the side of the dive operator to down-play or deny the symptoms as well.

But, is it appropriate for a dive centre manager to tell a diver with symptoms that the symptoms cannot be related to diving because their dive centre has never had an injured diver? What would prompt a highly-trained instructor to say, “That diver cannot have been bent because I checked the dive master's computer” when the diver was sent up alone and was not wearing a dive computer themselves? In the end, which is worse or more damaging to a diving company's reputation: an unnecessary phone call or trip to see the diving doctor, or a bent diver's treatment being delayed or, worse, being left untreated?

Well, let me start by providing some background on where I am coming from. I started diving in 1996 and have been a scuba instructor since 2004. My husband and I own a dive resort off the coast of Africa. Like many dive masters and instructors, I too was inexperienced in recognising the signs and symptoms of DCI. Until then, I had completed around 4 000 dives over 15 years without incident. So I was also falling into the mindset of “DCI doesn't happen to us”. Perhaps this is where the denial mindset of the dive professional begins.

In March 2010, during an unexpected three-month power failure in our area, I encountered my first diver with DCI. I was guiding a group of

experienced divers on a double dive excursion. Our profile was planned on the PADI recreational dive planner and was quite conservative: 18 m for 45 minutes, followed by a surface interval of one and a half hours and then a second dive to 16 m for 45 minutes with the entire group swimming at 5 m on top of the reef for the last 15 minutes of the second dive. All the safety stops were completed and all the ascents were slow and relaxed. We arrived back at the dive base around 45 minutes after surfacing and, as one diver removed her shorty wetsuit, she felt an itchy rash developing. She went for a swim in the sea and when she came back she showed me a small patch of a rash on her leg. In her explanation, she said she had opened the seal on the wetsuit of her leg early in the second dive and she thought something had stung her. Soon afterwards, her dive buddy took us to her room and showed us that the rash had spread to her torso and it appeared to be expanding rapidly, but it was only in places that had been covered by her wetsuit. A bit later she was feeling migraine-type symptoms and explained to us that she occasionally suffered migraines and it was probably the stress she was feeling that was bringing it on. We were fortunate to have a medical doctor with us on the boat that day and, of course, we called DAN-SA immediately, but the case was very confusing. It seemed that the symptoms had started at depth and

the association with the coverage area of her wetsuit strongly suggested an allergic reaction of some sort. What added to the suspense was that the local hyperbaric chamber was not functional with the extended power failure and there was no diving doctor on the island at the time. It was too late in the day to fly the diver out and I was left with the huge sense of responsibility for my diver and very aware of my sense of helplessness! Unable to sleep, I spent the early hours of the morning searching the internet for DCI rashes, neoprene allergy rashes and every other combination I could think of. Finally, there it was – a rash which looked very similar to what we had seen. It was known as a “skin bend”. Although not a serious form of DCI in and of itself, “skin bends” are often associated with more serious forms of DCI – especially inner ear, lung and brain DCI. So it demanded due attention. I printed a few articles, highlighted the relevant sections and shared the information with the diver the next morning. We photographed the rash, documented the case, and shared it with DAN and a local diving doctor. To our relief, the diver was doing better the next morning, although feeling exhausted from the experience. This incident really opened my eyes to the fact that DCI could be undeserved. Thankfully it was only a minor case.

“Undeserved” is a term that has been popularised to describe dives where DCI occurred even though the diver followed an appropriate dive schedule. By implication this means that neither the dive guide nor the dive centre did anything wrong. But still it happened. Perhaps the term “underserved” is a key to the underlying stigma that faces all divers who develop DCI. No one “deserves” to get DCI, even if they made mistakes. It seems to imply that there is somehow a clear threshold between innocence and punishment. Dive tables, at best, are an exercise in mathematics. You take your chances on any table. Who is to say where the lines of physiological justice are drawn? “Unpredictable” is the word used in diving medical circles these days. It tries to remove the air of retribution from the terms they use, but the uncertainties are no different.

“STUDIES HAVE SHOWN THAT CERTAIN INDIVIDUALS SIMPLY PRODUCE MORE BUBBLES WHEN EXPOSED TO THE SAME DECOMPRESSION STRESS.

Clearly there are situations where divers and operators have been looking for trouble. But these are not the cases that catch us unaware. What I want to share with the diving community is that I have treated some fantastic, conservative divers in the chamber – divers who did nothing wrong. Our attitude needs to change for their sake.

Why are some divers more vulnerable than others? Well, there are many reasons other than lying about the dive profile you did. Studies have shown

“DON'T IGNORE SYMPTOMS AND DON'T JUDGE DIVERS FOR HAVING DCI.

that certain individuals simply produce more bubbles when exposed to the same decompression stress. Others may have a shunt in the lung or a patent foramen ovale (PFO) – a hole between the upper chambers of the heart that can allow bubbles to slip over from the venous side to the arterial circulation and become symptomatic. The risk to these does not justify screening, because the incidence of DCI is so low, but it offers some very respectable alternative explanations for why there are exceptions; individuals who develop problems while diving well within the conventional safe decompression limits for recreational diving.

After my wake-up call, I started reading more and educating myself to be able to recognise the wide range of DCI symptoms. Fortunately, the hyperbaric chamber is online again with a full-time diving doctor. In November 2010, I enrolled in a DAN-SA course where I was trained as a hyperbaric chamber attendant and operator. Over the past couple of years, I have learnt a tremendous amount. It has taken me to a new level as a diving professional.

I still believe diving is one of the safest adventure sports, but things can go wrong and if they do, they can be life-threatening. I would like to encourage all instructors, dive masters and interested divers to get involved with their closest hyperbaric chamber to learn more about diving medicine. DAN offers a wide variety of courses where you can learn to perform neurological assessments on divers, improve your knowledge of diving medicine or become a dive emergency specialist.

What I hope readers will take away from this article is: don't ignore symptoms and don't judge divers for having DCI. Regardless of a safe, conservative dive profile, treat any symptoms after a dive as if they are related to the dive – until proven otherwise by a diving doctor.

We also need a change in the culture of our diving businesses. The best dive centre is not the one that has never had injured divers. Rather, it is the one that follows safe dive practices, knows how to recognise signs and symptoms of DCI, and is willing to be the first one to call DAN if there is a suspicion that a diver has been injured.

Our dive centre fully supports the local chamber and diving doctor. Seven members of our crew are trained as hyperbaric chamber operators and attendants. We are DAN-SA Chamber Support Partners. We follow conservative, safe diving practices. So, in the unlikely event that any of our divers develop signs or symptoms after a dive, we have done our best to protect them and are now ready to treat them and look after them.

Many thanks to DAN-SA for training me to be a hyperbaric chamber operator and attendant. You have made a difference not only to my life, but also to the lives of all the injured divers we have been able to assist! Keep up the good work! ■

DAN Training & Education

Courses offered

Contact a DAN instructor in your region to take any of these courses. A full list of instructors is available from DAN-SA on 0860 242 242 or from the website.

DAN Training

DAN Training goes digital!
Some courses are now available digitally.

Entry-level courses

OXYGEN FIRST AID FOR SCUBA DIVING INJURIES



As a recreational diver, you can receive training to provide vital first aid that can make a difference to a scuba diver with decompression illness. The DAN Oxygen Provider Course provides entry-level training in the recognition and management of possible diving-related injuries using emergency oxygen first aid.

FIRST AID FOR HAZARDOUS MARINE LIFE INJURIES



Serious hazardous marine life injuries are rare. Most divers experience minor discomfort from unintentional encounters with fire coral, jellyfish and other marine creatures. This course teaches divers to minimise these injuries and reduce diver discomfort and pain.

AUTOMATED EXTERNAL DEFIBRILLATORS FOR SCUBA DIVING



More than 10% of all dive fatalities are actually caused by cardiovascular disease, according to DAN dive accident and fatality statistics. This course teaches divers and other interested parties to provide care for sudden cardiac arrest including the use of an automated external defibrillator (AED).

Intermediate courses

BASIC LIFE SUPPORT COURSE



The DAN Basic Life Support (BLS) Course will not only train divers and non-divers to resuscitate an injured person with a circulatory arrest, but can also prevent a person from getting in that condition. External bleeding, choking and shock can lead to severe circulatory and respiratory problems. The DAN BLS Course will prepare you to react in the correct way when accidents happen.

FIRST AID COURSE



The DAN First Aid Course represents training designed to educate people with a CPR/BLS certification in providing first aid to adult victims with non-immediately life-threatening injuries. Although the course was designed to be taught together with the DAN BLS Course, it can also be offered as an extra module to those who already have a DAN BLS or other BLS certification that respects European Resuscitation Council (ERC) guidelines. In a real accident situation, first aid skills are the next step after providing effective BLS.

ON-SITE NEUROLOGICAL ASSESSMENT FOR DIVERS



(Prerequisite: *Oxygen First Aid for Scuba Diving Injuries*)

Learn how to conduct a neurological assessment on a potentially injured diver in this course. The information gained in this assessment can help convince a diver of the need for oxygen first aid and help a dive physician determine the proper treatment.

ADVANCED OXYGEN FIRST AID FOR SCUBA DIVING INJURIES



(Prerequisite: *Oxygen First Aid for Scuba Diving Injuries*)

This advanced-level programme is designed to train existing DAN oxygen providers to use the MTV-100 or a bag valve mask while providing care for a non-breathing injured diver.

Advanced courses

DIVE MEDICINE FOR DIVERS



(Prerequisite: *DEMP and NEURO*)

When you want to know more than just basic first aid techniques, Dive Medicine for Divers is your next step. Ultimately, more knowledge and a better understanding of how our bodies react to the pressures and stresses of diving lead to safer dives as we understand our limitations and the limitations of the situation.

Combination courses

DIVING EMERGENCY MANAGEMENT PROVIDER PROGRAMME



Learn the knowledge and skills from several courses in one single approach to dive emergency management.

Leadership programmes

INSTRUCTOR QUALIFICATION COURSE

To become a DAN instructor, you must complete the DAN Instructor Qualification Course (IQC). Instructor candidates will complete a core module that offers more information about DAN and explains how to teach DAN programmes. Candidates will then complete the course module for each DAN training programme they are interested in teaching.

INSTRUCTOR TRAINER WORKSHOP

This programme teaches scuba diving instructor trainers to teach the DAN Instructor Qualification Course and train DAN instructors. Only DAN staff members and examiners can offer this programme.