

# New Divers Test the Waters

... there's more to diving than the certification. As divers, we should take a close look at ourselves - and our buddies - to ensure we're ready for certain underwater experiences; the issue of diver comfort arises in many injury cases referred to DAN.

## **DIVER 1**

The diver is a 19-year-old male college student who has been certified for six months. He is active, healthy, a nonsmoker and nondrinker. The diver has a childhood history of chest congestion and occasional infections, but he has been without symptoms for many years. He was cleared to dive by his personal physician. He has not been diving since certification and is beginning a one-week series of shallow dives with friends.

### **The incident**

The first day of diving began with four dives in the 20- to 40-foot (6- to 12-meter) range for up to 25 minutes on each dive. The dive site was new to him. On two of the dives, the diver experienced some anxiety and separated himself from the group to make a rapid ascent toward the surface. On both occasions the dive leader was able to stop the diver's ascent and was able to encourage the diver to calm down and return to depth. On the second day of diving the diver in question made two dives at the same site. The first was to 60 feet (18.2 meters) for 30 minutes with a 60-minute surface interval and then a 50-foot (15.2-meter) dive for 20 minutes. On the second dive, the diver again experienced a strong sense of anxiety and began a rapid ascent toward the surface. Again, the dive group leader stopped the diver near the surface and encouraged a wait of a few minutes (possibly preventing an immediate and serious injury).

### **The symptoms**

A little later, when the diver exited the water, he was cold and very fatigued. Late that evening after returning home, he noticed the gradual onset of pain in his right elbow. The pain grew in intensity, and he also developed a generalized headache. He called his original certifying instructor, who said he felt that it was unlikely the diver could have decompression illness (DCI). The following night when his symptoms continued, he called DAN. Unfortunately, the diver was not a DAN Member and was located more than three hours away by car from the nearest recompression chamber. Due to the cost of local evaluation, he elected to drive with friends to the facility and bypass local medical evaluation and assistance.

### **The treatment**

Fortunately for the diver, he received complete relief of all symptoms when he was treated with a U.S. Navy Treatment Table 6. He remained under observation in the hospital for the remainder of the following day and was later discharged.

Although his symptoms were relatively minor, the diver made the right decision to call for advice. Even though it would have been better if he had first been evaluated by a local physician, placed on 100 percent oxygen and then transferred to a recompression facility, the diver still experienced a positive outcome after his injury. With postdive symptoms such as those the diver experienced, it is advisable to receive an evaluation by a local physician, even if that person is not trained in diving medicine. That physician can gather baseline information and perform basic physical and neurological evaluations. This not only helps diagnose DCI, but it also helps rule out other possible causes of a diver's symptoms. DCI does not always manifest itself in an obvious manner and can occur even after dives that would not normally make one suspect DCI.

## **DIVER 2**

The diver is a 30-year-old female; she is in excellent physical health, physically fit and a nonsmoker. She has been certified for one month and is traveling by personal vehicle to a recreational scuba dive site. She has two days of diving planned.

### **The incident**

On the first day she planned two dives to reacquaint herself with recently learned skills. These dives, both to 25 feet (7.6 meters) for 25 minutes, proved uneventful and smooth. On the second day of diving she planned a 60-foot (18.2-meter) dive for 50 minutes. Toward the end of the dive, she was having buoyancy problems and attempted to use her buoyancy compensation device (BCD) to maintain neutral buoyancy. This increased her buoyancy problems, and she ended up making a panicked ascent all the way to the surface.

### **The symptoms**

She felt dizzy and was somewhat nauseated after surfacing. After removing her equipment she lay down and rested. After a two-hour surface interval, she felt better and appeared symptom-free; she decided to make the second dive, making a 45-foot (13.7-meter) dive for a total bottom time of 25 minutes. She made a five-minute safety stop and exited the water, feeling no symptoms. She began the drive home immediately after her dive. To get home, however, she had to cross mountains, reaching an elevation of 6,500 feet (1,981 meters) some 90 minutes after her last dive. At home, approximately five hours after exiting the water, she began to experience a generalized weakness plus a tingling, “prickly” sensation in her left arm. This progressed to weakness in her entire left arm; her earlier nausea also returned about an hour after arriving home.

### **The treatment**

The diver went to the local emergency department and was evaluated by a physician. She was not a DAN Member, but the physician called DAN to discuss the case. The diver was transported to a hyperbaric facility at a local major medical center. She was treated with a single U.S. Navy Treatment Table 6 and experienced complete resolution of symptoms afterward.

## **DISCUSSION**

These two incidents point out that there’s more to diving than the certification. As divers, we should take a close look at ourselves – and our buddies – to ensure we’re ready for certain underwater experiences; the issue of diver comfort arises in many injury cases referred to DAN. Both divers may have been unsure of their abilities as new divers, but both acted on common sense when they acknowledged that something was amiss after their dives. They made the right decision about getting assistance, despite their lack of specific knowledge about DCI.

Divers can perform all of the right skills in the pool and under direct supervision, but how comfortable are they once they are on their own? It depends on the diver and the situation, but control of respiration is a key factor in maintaining in-water comfort. Factors that may increase resistance to normal breathing, such as BCD chest straps, a partially inflated BCD or a tight-fitting wetsuit, may create a sense of uneasiness in the diver; add to that a lack of diving experience at a new depth and at a new site. Now consider the level of skill and the level of diver knowledge: this does not necessarily equal new-diver comfort.

Optimally, each dive needs to match the skills and knowledge of the diver. The first dives after certification are still learning dives. Becoming accustomed to the effects of submersion has a great deal to do with developing diver comfort and reducing stress, anxiety and even panic. In this respect, in-water comfort is as much of a safety skill as buoyancy control. This is also where DAN membership and Alert Diver can play

a role. Even during months when you're not diving, you can get relevant diving safety information that can help you - and the other people with whom you dive - better understand recreational scuba diving.

If your dive buddies are not DAN Members or if you know new divers who have not yet joined DAN, encourage them to do so now. There is no single action that will eliminate injuries in divers, but a DAN membership is an excellent start to a long and knowledgeable career in recreational scuba diving.