

# TRAINING

## LESSONS FOR LIFE



## A Painful Reminder

Unaware that his body's aches and pains were symptoms of a potentially larger problem, a new diver continues his dive trip

BY ERIC DOUGLAS

Leon had been certified only a few months and made only four dives, but he was making up for lost time. On his first real dive vacation, he was diving a couple of times each day and loving every minute.

Something was amiss though. The previous night, Leon felt achy and tired. He reasoned that it was due to two full days of diving, and chalked it up to carrying gear and his body position in the water. Now on day three of the trip, it was time to get back to the boat, and nothing would stop him from logging more bottom time. This was going to be his last day at the resort, he had already paid for the dives, and he wasn't going to pass this up.

### THE DIVER

Fitness was a way of life for Leon. He took good care of himself, exercising regularly and staying active. Leon didn't smoke and had no health problems. He was 36 and didn't take any medications either.

Leon was certified to dive six months before, and it was all he could think about since then. He loved the way it made him feel, floating weightless in the water. He also knew that he had a long way to go and a lot to learn about diving. Still, he was excited to learn. Taking this dive trip had been a friend's idea, and Leon was glad that he'd accepted the invitation. He wasn't pushing his limits but could

already tell his dive skills were improving with each dive.

### THE DIVES

Leon was staying at a resort that catered to divers. He had the option of making beach dives every afternoon, but he didn't want to push things. He chose to relax or go sightseeing after his diving was done. He did get up every morning to make the boat dives though.

On Leon's first day, he made three dives: one to 75 feet, 45 feet and a night dive to 30 feet. On his second day, he made two more dives: one to 80 feet and 60 feet. All the dives were well within no-decompression limits with surface intervals of at least an hour between each one.

Leon and his buddy made safety stops after every dive too. And while Leon hadn't bought a dive computer yet, he believed that following his buddy in the water and staying beside her was all right — he just stayed within the dive times her computer was giving.

Feeling tired, Leon decided to skip the night dive on the second night and went to bed early. In spite of his fatigue, he had trouble sleeping because his left shoulder and his neck hurt, and he couldn't get comfortable.

On the third dive day, Leon showed up for the boat still feeling a little stiff and sore. That morning he enjoyed two more dives to 80 and 50 feet. Leon noticed he felt better on both of these dives, but assumed it was simply being in the water that was helping his soreness. Afterward, his neck and shoulder hurt again, but he ignored the pain.

### THE ACCIDENT

This dive accident is a dramatic one, but it took a while to be noticed. It actually started on day two of the trip and continued into day three.

Leon drove home from the resort still feeling sore. After he got home, he took NSAID pain relievers for three days before it occurred to him that his problems might be dive related. Finally, after talking to a friend at the dive shop about

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his trip and mentioning that he was still sore, the friend suggested he contact the DAN emergency hot line.

Leon received a referral to a hyperbaric unit, well versed in treating divers, at a local hospital. After a thorough examination by the diving physician, he was treated with a U.S. Navy Treatment Table 6. During the four-hour-and-45-minute treatment, his symptoms improved. He received two additional treatments over the next two days, and by the end of the third treatment in the hyperbaric chamber, Leon's symptoms — pain in his neck and shoulder — had disappeared.

### ANALYSIS

Leon's dives weren't especially challenging, and he wasn't violating the no-decompression limits. But the dives were certainly enough to build up a nitrogen-gas load in his body.

The key point to remember with decompression illness is there's no absolute depth limit, one that if you stay below you're safe and if you go beyond it you're always going to get hurt — there's simply too much individual variability in the human body. On a regular basis, divers make risky dives and walk away with no problem, while others make what would be regarded as simple or easy dives and suffer decompression illness. The only *real* way to avoid all risk is to stay out of the water completely. Failing that, it's best to

be conservative when planning and making your dives. Just because your dive computer says it's OK to make a dive doesn't mean your body will agree.

Leon was lucky. He did several things wrong, but after treatment he was able to walk away from the chamber with no ill effects. He got himself into trouble by not planning his own dives and not taking responsibility for his dive profiles. Following his dive buddy and staying "right next to her" isn't a solution to dive planning.

The bigger issues for Leon are also common. He failed to recognize that the symptoms he was feeling might be dive related and didn't seek treatment. By continuing to dive after the symptoms began, he only made the situation worse. He was adding more nitrogen into his body when there was already too much of it!

Leon also ignored two key indicators (beyond the symptoms themselves): When pain in a joint doesn't change with movement, and when the symptoms are relieved by returning to pressure — that is, going back underwater — it's a good indication the symptoms are dive related. While neither of those is a surefire indication of decompression illness, both reinforce the potential problem.

By not seeking treatment for three days after diving, Leon also potentially made the problems worse. As with any injury, treatment as soon as possible is better than waiting.

### LESSONS FOR LIFE

1) Plan your own dive and follow it. Don't rely on a buddy's dive computer.

2) Learn the basic signs of decompression illness and be suspicious if a) you've been diving recently; and b) those symptoms appear.

3) If you're concerned that you have decompression sickness, call DAN (919-684-9111) for advice or seek medical attention from a physician trained in diving medicine.

4) Do not return to diving until your symptoms have been resolved.

### SIGNS AND SYMPTOMS OF DECOMPRESSION SICKNESS

These are basic indications of DCS, but *this is not an exhaustive list*:

- Pain in joints and/or muscles, arms, legs or the torso;
- Numbness, tingling;
- Dizziness, inability to maintain balance while walking or standing;

- Coughing spasms;
- Unusual fatigue;
- Paralysis, weakness;
- Collapse or unconsciousness;
- Shortness of breath;
- Skin itch or rash.

**Note:** Signs and symptoms usually appear within 24 hours after surfacing; but in severe cases, symptoms might appear before surfacing or immediately afterward. Delayed occurrence of symptoms is rare, but it does occur, especially if diving is followed by altitude exposure.

Eric Douglas co-authored the book *Scuba Diving Safety*, and has written a series of dive-adventure novels and short stories. Check out his website at [booksbyeric.com](http://booksbyeric.com).

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