

# Can Bends Be Predicted?

*a warning for twenty-five percent of us*

About one out of every four divers reading this article is more susceptible to decompression sickness and brain lesions than the other 75 percent. You see, about 25 percent of the people on this planet have a common and usually harmless heart defect called Patent Foramen Ovule. While it's no problem on land, to divers it is indeed anathema.

A study released in November sheds more light on this usually undetected condition — an opening in the connection between the left and right sides of the heart — and to what extent it is involved in serious diver injury.

In cranial examinations of eighty-eight scuba divers, four of five divers with PFO were found to have several brain lesions each. Brain lesions were rare among non-PFO divers. "It is unclear whether the brain lesions can cause long-term problems, but common sense would tell you if you have enough of them and they're in the right places, they could cause problems, such as memory disturbances or difficulty concentrating." The research was performed by Michael Knauth, a neuroradiologist at the University of Heidelberg Medical School in Germany; he presented his findings to the annual meeting of the Radiological Society of North America in Chicago.

In another aspect of the study, 19 out of 24 divers who had unexplained diving incidents despite following the rules of decompression, such as descending and ascending slowly, turned out to have PFO. Some also had large brain lesions.

During dives, inert gas bubbles that form in the bloodstream can bypass the filter in the heart of PFO sufferers that would normally send the bubbles to the lungs. The bubbles then travel through the body, causing decompression sickness, and into the brain, where they can create lesions. In people who do not have the defect, Knauth explained, tiny air bubbles that develop in the blood among divers are filtered harmlessly out of the body.

Decompression sickness, which can be fatal, occurs when gas bubbles are released into tissue after a too-rapid decrease in air pressure following a stay in a compressed atmosphere — such as under water.

"Divers with PFOs should reduce the depth they are descend-

ing to, not stay deep too long, ascend slowly, increase the time they spend above water between dives, and avoid several descents during one dive," Knauth said.

"We feel testing for this heart condition with a special ultrasound examination should be included in the fitness-to-dive exam that people take before being certified to scuba dive," said Knauth. He said that divers spend about \$3,000 in certification fees and for diving equipment, so an additional \$200 for the ultrasound test should not be considered a hardship.

In a related study presented at a Stockholm meeting of physicians in 1998, researchers J. Hencke and M. McCabe reported that 44% of all DCS cases affected a subgroup of divers who did not show any other risk factors but a PFO. They concluded that divers with a PFO are always at an elevated risk for DCS even if decompression is carried out correctly.

Reports from Reuters, UPI, and the *Journal of Hyperbaric Medicine*

## Phony Ad Wrecks Vacation

**Dear Editor:** I saw your column (*Undercurrent*, January, 2000) about the "shore dives" depicted in Little Cayman Beach Resort's ad. It wasn't the first time I'd noticed the ad. Last spring, my wife, mother and I wanted to vacation together — someplace where my wife and I could get in some good diving, and where my 76-year-old mother could enjoy the beach. We noted that Little Cayman Beach Resort was a top-rated dive resort, and after I saw the ad, that pretty much clinched the deal. Mind you, I really didn't take the ad literally. I recognized the signs of digital tomfoolery. I didn't expect to have a reef that close to the beach. But I certainly never expected the water to be less than a couple of feet deep (and filled with weeds) for nearly a half mile from the beach.

The resort lives up to its reputation in terms of the diving, service, food, and accommodations. We all had a good time, even my mother. But Little Cayman just isn't a "beach resort," and shouldn't be calling itself one. I can't believe that a place so well-run, with such great diving, would be hurt by an honest characterization of the situation. I'd go back, but not with someone who wants a beach.

I admit sheepishly that, after the fact, I found the beach described accurately in a reader report on the *Undercurrent* website. I won't travel again without reading everything that's out there. John Sommerer (Silver Spring, MD)

**Editor's Note:** It's true, there's a lot of good info from readers and editors on the website. If you're not a member of *Undercurrent Online*, for 25 cents you can log on to [www.undercurrent.org](http://www.undercurrent.org) and see for yourself what value it can bring.