

# A Shrink Studies SCUBA

TABLE . Relative Risk of Panic During Dive in Presence of the Following:

	Males N=9292	Females N = 2939
Hyperventilation	4.6	3.1
Other physical/psychological factor(s) not listed	3.4	2.4
Other equipment problem(s) not listed	3.4	2.0
Other dive condition(s) not listed	3.4	2.6
Chest tightness	2.6	2.0
Fear of the unknown	2.5	2.1
Cold water	2.1	1.1
Poor visibility	1.9	1.1
Inhaled water instead of air	1.8	1.5
Task overload	1.8	1.4
Fear of scrutiny or embarrassment	1.6	1.2
Loss of orientation	1.6	1.3
Fatigue or overexertion	1.6	1.1
Low on air or out of air	1.6	0.6
Deep dive	1.3	0.5
Separation from buddy or instructor	1.2	0.8
Strong current or surge	1.2	0.7
Uncontrolled ascent	1.1	0.7
Difficulty operating buoyancy compensator	1.1	1.2
Entrapment or entanglement	1.1	0.6
Poorly fitting equipment	1.0	0.6
Loss of mask	1.0	1.2
Dry suit dive	1.0	0.6
Rough sea or surf	0.9	0.7
Overhead environment (cave, wreck, ice)	0.7	0.3
Nighttime or darkness	0.6	0.4
Over-weighted or under-weighted	0.6	0.4
Long surface swim	0.5	0.3
Loss of weight belt	0.5	0.3
Mask leak	0.4	0.4
Solo dive	0.4	0.1
Medication, other than decongestant	0.4	0.3
Difficulty equalizing ears	0.4	0.4
Regulator leak or free flow	0.4	0.2
Muscle cramps	0.3	0.2
Motion sickness	0.3	0.3
Decongestant medication	0.3	0.2
Dive light failure	0.2	0.1
Loss of computer or gauge functions	0.2	0.1
Shark	0.2	0.1
Other dangerous marine life	0.2	0.1
Broken or loose fin strap	0.2	0.1
Sharing air	0.1	0.4
Tank slippage	0.1	0.1



In 2000 when my wife Lynn and I conducted the “world’s largest diver survey,” our main goal was to determine exactly what factor or combination of factors led to diver panic aside from just “stress.” The unquestioned gospel in all the dive literature for decades has been that diver panic is the number one cause of diver deaths, so it is a worthy research subject.

PADI vice president of international training, Drew Richardson, challenged me over even the feasibility of studying the problem, but as a private psychiatrist I told him that even severe panic disorder patients can remember the details of their first panic attack. I also had several panic disorder patients who were divers and not only had they never had a panic attack while diving, but they claimed they felt the most relaxed when they were diving. DAN founder and then president Dr. Peter Bennett gave me a big break when he allowed me to administer a beta test of the survey to the 100+ attendees of a Dive Medicine continuing education course that summer, which helped me convince Drew that the study could be done.

Over 13,000 scuba divers from around the world participated in the online survey sponsored and hosted by Rodale’s *Scuba Diving* magazine and actively supported by then PADI vice president of international training, Dr. Drew Richardson. Many dive clubs and other organizations around the globe helped publicize it. Paper surveys were also made available for magazine readers without access to the web. We designed the 28 questions with the invaluable input of experts like Dr. Peter Bennett, Dr. Drew Richardson, Dr. Art Bachrach, Dr. William Morgan, Dr. Thomas Griffiths, and many of my dive buddies on Bonaire and in Raleigh. Due to incomplete surveys the final number of useable surveys was just over 12,200. In May 2002 I presented a poster and gave a brief talk to the annual international scientific meeting of the UHMS in La Jolla, California. At the request of Drew Richardson we prepared a six-page feature article for *The Undersea Journal* first quarter 2003 issue. Both can be found at [www.DivePsych.com](http://www.DivePsych.com).

But Lynn and I failed to achieve our main goal of determining exactly what factor or combination of factors leads to diver panic. We used the useable responses to questions 6 and 26 to calculate the relative risk of panic under each of the 44 “circumstances that you have ever experienced while

scuba diving” (Question 6) and “conditions that were present during your first panicked dive” (Question 26). We also asked in question 26 if they were experiencing the condition for the FIRST TIME during their first panicked dive, but apparently too many respondents got confused by the question’s wording, so we had to just analyze the conditions that were present during the first panicked dive whether it was the first time they had ever experienced them or not.

When I showed Dr. Bennett Table 1 and he saw that three of the top four factors were “Other,” “Other,” and “Other,” his response was that we had proven nothing after several years of hard work. Researchers do not tend to publish negative findings, so the table has resided in my laptop until now.

For three years I conducted follow up surveys of those divers and am slowly analyzing the data and releasing the results, such as the prior articles on diver obesity. In September I will be speaking at a workshop on diver panic and stress at the South Africa UHMS annual dive medicine refresher course in Johannesburg, South Africa. □



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