

Diving Into Underwater Dental Issues



By Erik Lief — December 22, 2016



Scuba diver [1]

Dipping a toe into the waters of dental issues associated with scuba diving, a DDS-to-be wants to alert divers to the fact that taking the plunge can exacerbate problems with unhealthy teeth and loose fillings.

The researcher, a student in the University of Buffalo School of Dental Medicine, began a small survey of divers on a personal instinct that underwater conditions worsen existing dental problems.

The curiosity of the student, Vinisha Ranna, Bachelor of Dental Surgery, deepened after her own underwater excursion three years ago, when she experienced a "squeezing sensation in her teeth, a condition known as barodontalgia." And when Ms. Ranna subsequently found that there wasn't much clinical research previously done, she decided to dive into the topic herself.

While a rudimentary undertaking to be sure, what she found from her pilot study of 100 people was that while on a dive 41 of the subjects said they experienced dental or jaw discomfort.

"The dry air and awkward position of the jaw while clenching down on the regulator is an interesting mix," Ms. Ranna said, referring to the oxygen supply and mouthpiece, [in a statement](#) [2] released today by the university. "An unhealthy tooth underwater would be much more obvious than on the surface. One hundred feet underwater is the last place you want to be with a fractured tooth."



Of the 41 who reported problems, 17 said they felt barodontalgia, 10 had mouth pain from biting down of the regulator and nine others said they experienced jaw pain.

To become a certified diver, applicants must demonstrate a level of physical fitness, but there are no "dental health prerequisites." Roughly 24 million certifications have been issued worldwide, according to the [Professional Association of Diving Instructors](#). [3]

The university's statement, providing further details, went on to say that "[d]ue to the constant jaw clenching and fluctuations in the atmospheric pressure underwater, divers may experience symptoms that range from tooth, jaw and gum pain to loosened crowns and broken dental fillings."

The study, titled "Prevalence of dental problems in recreational SCUBA divers: a pilot survey," appeared Nov. 4 in the [British Dental Journal](#) [4].

Given the small sample size of subjects, the results were hardly conclusive, but instead they represent a jumping-off point for further research. To that end, U of B stated that Ms. Ranna will conduct a follow-up study of 1,000 subjects.

Undertaking a deeper, underwater study, if you will.

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