Patent Foramen Ovale in Recreational and Professional Divers: An Important and Largely Unrecognized Problem.

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Abstract

Patent foramen ovale (PFO) is associated with an increased risk of decompression sickness (DCS) in divers that results from a paradoxical embolization of nitrogen bubbles. The number of scuba divers worldwide is estimated in the millions, and the prevalence of PFO is 25%-30% in adults. It is interesting that despite these numbers, many important issues regarding optimal screening, risk stratification, and management strategy still remain to be resolved. Recently published data suggest the possible effectiveness of both PFO closure and conservative diving measures in preventing arterial gas embolization. This review aims to introduce the basic principles of physiology and the pathophysiology of bubble formation and DCS, summarize the current literature on PFO and diving, and review the possibilities of diagnostic workup and management.
