

# PSYCHIATRIC FITNESS TO DIVE

## A LOOK AT MENTAL HEALTH AND DIVE SAFETY

BY ADAM ROTH, M.D.

**T**he task of assessing psychiatric fitness to dive conjures the anxiety of a deep sea explorer sitting upon the deck of her boat about to open a box of unknowns as she eagerly wipes away the dirt, sea detritus and rust. What will she find? Pandora's box or Blackbeard's treasure?

For many years prospective divers with various medical illnesses were automatically and often arbitrarily denied clearance to dive recreationally. Fortunately, many divers with diabetes, asthma, remitted cancer and other serious medical disorders have now been able to partake in the wonder of visiting the underwater world. Psychiatric illness, unfortunately, often still mystifies evaluators seeking a simple, clear algorithm to determine a candidate's ability to dive.

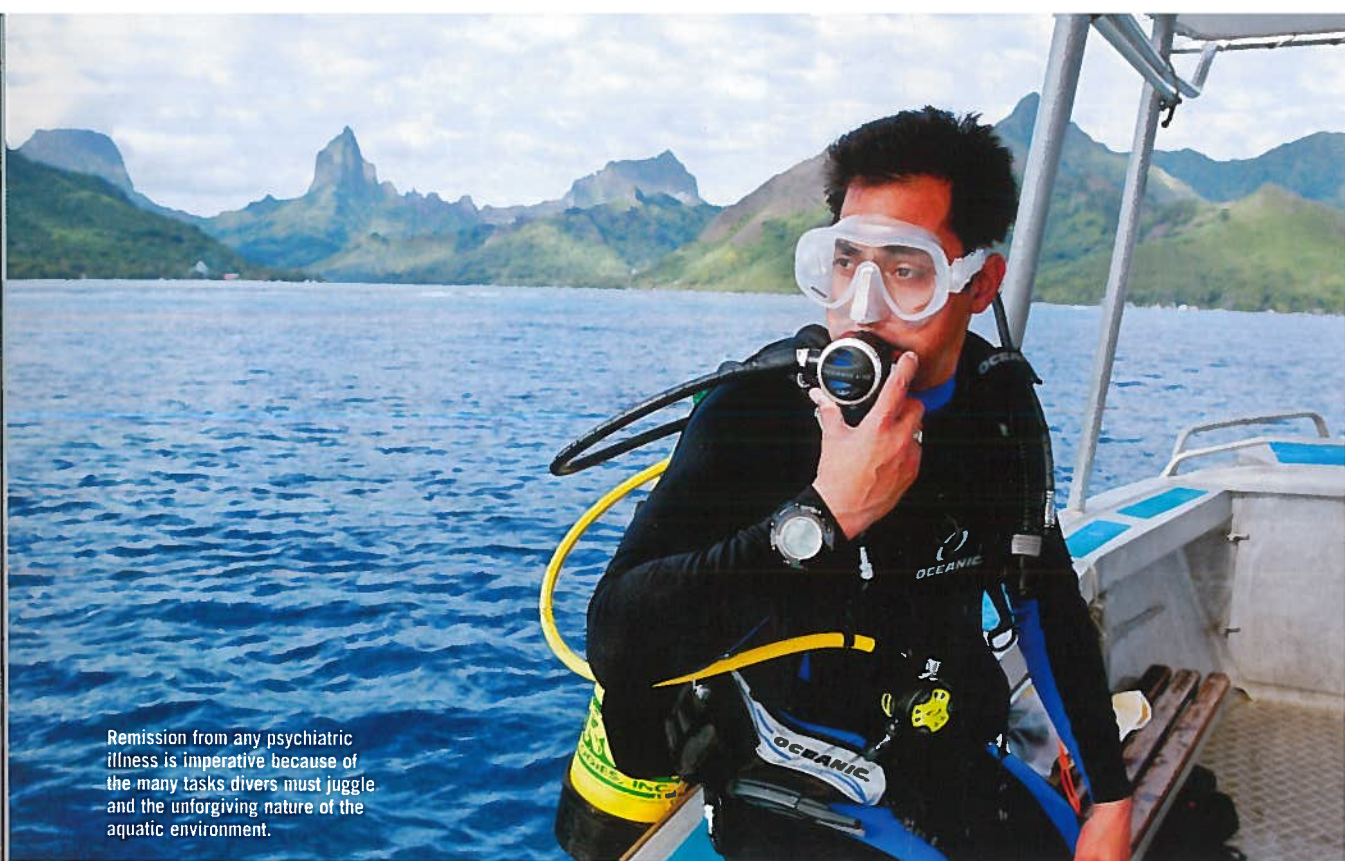
As with so many medical conditions, there are no simple answers when it comes to psychiatric fitness to dive. But we can help divers and evaluators learn what questions to ask. It's a tall order and an exhaustive discussion impossible to cover in the scope of a single article, so for now let's review psychiatric illness, its treatment and concerns about the safety of divers who have been diagnosed or treated for such conditions. The information provided will provide at least a glimmer of illumination into what has generally been a stygian darkness.

### A SIMPLE FACT

To start, major depressive disorder (commonly referred to as "depression"), bipolar disorder (formerly described as "manic depression"), generalized anxiety disorder, panic disorder, phobic disorders, post-traumatic stress disorder and schizophrenia are but a few illnesses now increasingly understood to be medical diseases; in other words, they are biological disorders. There are multiple statistical analyses of data, including genetic, demographic and epidemiologic, biochemical, neuroanatomic, neurophysiologic and neuroimaging data that demonstrate a high degree of correlation between episodes of illness and biological findings — correlations that differ from groups of individuals not subject to the illnesses.

Improved understanding of psychiatric illness is shedding new light on dive fitness standards.





STEPHEN FRANK

Remission from any psychiatric illness is imperative because of the many tasks divers must juggle and the unforgiving nature of the aquatic environment.

While psychotherapies play a critical and important role in the treatment of certain conditions, psychiatric illness is no different from any other medical illness. In some disease states, such as the common cold, no pharmacologic intervention is necessary. In others, nonpharmacologic treatment is extremely important and may prevent the need for drug treatment; an example of this scenario might be an individual with hypertension, who is successfully treated with a program for weight loss, including proper nutrition and exercise and even, perhaps, meditation.

Similarly, in some psychiatric diseases, psychotherapy alone may be appropriate. However, many psychiatric diseases are not completely or sufficiently responsive to nonpharmacologic intervention, and the use of psychiatric medication is not only warranted, it is critically important to achieve remission of symptoms.

### PRINCIPLES FOR CLEAR ASSESSMENT

Because psychiatric illnesses are generally biologically driven, willpower, stoicism, self-medication and denial are usually woefully unsuccessful in dealing with the problem. Unemployment, chemical dependencies, school failure and social struggles are often comorbid with these disorders. We know that as it relates to depression, patients who are 50 to 99 percent recovered from an episode of major depressive disorder have a statistical risk of approximately 75 percent of experiencing a full-blown relapse within one year. In the same data, those who are 100 percent recovered carry only about

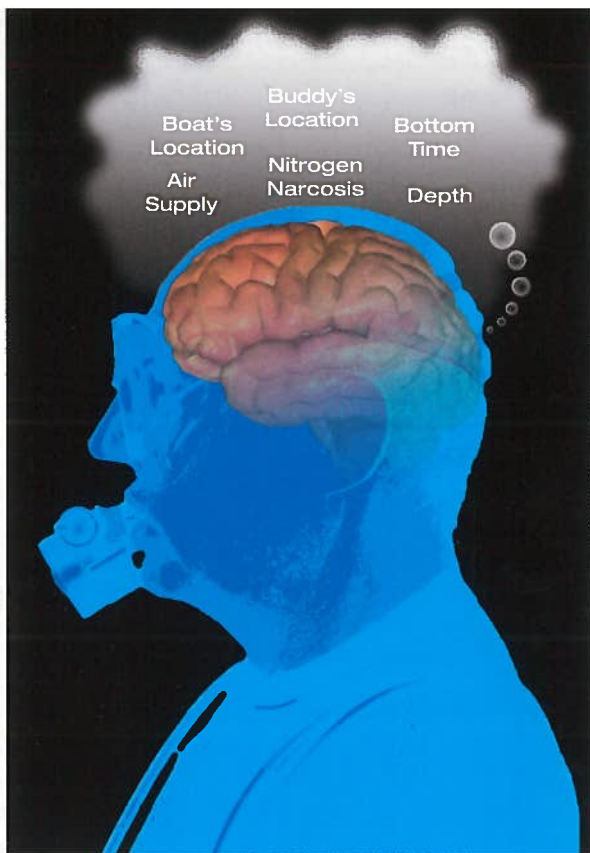
a 25 percent risk of full-blown relapse within a year. Clearly, psychiatric illnesses impose a catastrophic degree of anguish, impaired function and comorbid medical risk in unremitted and undertreated states.

The concerns facing a medical evaluator therefore are twofold. First, does the illness itself pose a current or ongoing threat to the safety of the diver or those with him? Second, what risk is imposed by medication? Psychological management of anxiety and phobic issues in divers is a bigger discussion outside the scope of this article. However, the principles for clear assessment of the prospective diver with a psychiatric history are straightforward.

First, the primary requirement is the prospective diver be in remission from her illness. "In remission" means the diver should have no symptoms of illness whatsoever. Should the evaluator have any doubt, the health-care provider responsible for the prospective diver's psychiatric condition should be consulted and in absolute agreement the patient is completely without symptoms and able to function without limitation. The understanding that psychiatric illness is similar to any other significant, potentially recurring medical disease is helpful here. Should a patient with asthma, diabetes, cancer or infectious disease wish to dive, remission is a necessary condition. So it is with psychiatric diseases.

In terms of being fit to dive, there is nothing unique to psychiatric illness in comparison to other major medical conditions. This is the key principle of the evaluation: The diver must be symptom-free. He must be able to function without





any restriction on tasks requiring individual or cooperative judgment. He must be cognitively intact. He must have maintained remission for a significant period of time. As for what constitutes a "significant period of time," it may differ from diver to diver depending upon the particular diagnosis or patient circumstances. For that reason, consultation with the treating medical provider may be appropriate. Should the evaluator be familiar with the diagnosis and treatment of such conditions (e.g., if the evaluator is a psychiatrist), then consultation may not be necessary. For evaluators not highly skilled in such determinations, Divers Alert Network® (DAN®) has medical resources and staff available for consultation and should be contacted.

Psychiatric illnesses in remission are not, in and of themselves, contraindications to diving. It is the risk of inappropriate judgment or action that is of concern to the evaluator. It is therefore most important to understand the protracted remission of illness means the prospective diver has maintained an asymptomatic state and has typically been driving, working and participating in various recreational activities that require appropriate cognition, cooperation and judgment. It means there is a clinician who has participated in the assessment and treatment of the prospective diver who should be available for consultation. Demographic data suggest that perhaps as high as 50 percent of the American population experiences an episode of psychiatric illness. Many of these individuals may dive safely if their illness is successfully treated.

The second consideration is the assessment of medication



## MEDICATIONS AND DIVING

Medications have become a part of an increasing number of divers' lives. Do you want to know more about safely incorporating those medications into your diving? Watch our online lecture "Medications and Diving" at [www.DAN.org](http://www.DAN.org)

prescribed for psychiatric disease. There are few medical inherently problematic in divers using air at standard recreational depths. While there is little actual data on psychiatric medication at depth, there is no data demonstrating the hazard of selective serotonin reuptake inhibitors, serotonergic and norepinephrine reuptake inhibitors, nor is there data regarding the hazards of the group of agents usually referred to as atypical antipsychotics, often prescribed for antidepressant augmentation, bipolar disorder and schizophrenia. Stimulant medications used to treat attention deficit hyperactivity disorder (ADHD) show no clear risk; the greater risk is the loss of medication benefit if it is not taken in a timely fashion. Antiseizure medications must be assessed on a case-by-case basis. Diving while taking lithium carbonate is relatively contraindicated because of the severe hazards associated with potential lithium toxicity if the diver becomes sodium deficient or dehydrated. Benzodiazepines and benzodiazepine-like compounds are contraindications to diving because of their sedating and cognitive- and judgment-impairing qualities.

There is no evidence to suggest that recreational scuba diving poses a special risk to psychiatric patients in remission receiving appropriate medication without side effects. Prospective divers in remission, under appropriate care and who function without limitation may be considered reasonable candidates for diving. Use of nitrox or other exotic gas mixtures, diving below standard recreational depths, decompression diving or other special circumstances, however, all require individualized assessment. **AD**