Why should divers STOP before going past their training limits?
by Kenneth L Tuttle Wilhelm, MSpSc

This article, with some slight editing, is a reprint of the original as appeared online at:
http://www.idivher.com/why-should-divers-stop-before-going-past-their-training-limits-part-1/#.WAUgbLwrLx4

We will be looking at providing some answers to this question, in a series of five short articles.

Some of what we will discuss will be a deeper and more serious look at some topics covered in the Open Water Diver course.

Some other topics will be addressing issues that are generally not part of an Open Water Diver class.

Part A: Nitrogen Narcosis

It is true, if you dive deep, you can get similar feelings from the increase of nitrogen particles in your brain, as if drinking alcohol. This is what is called 'Nitrogen Narcosis'. In the past it was called the 'Rapture of the Deep'.

It is also true, that as you ascend from the deep water coming up to shallower water, the effects of the nitrogen will subside.

The problem is, while you are at deeper depths, you ARE under the significant effects of Nitrogen Narcosis.

While many divers may not recognise the onset of Nitrogen Narcosis, the effects on brain function are already becoming measurable scientifically, at 24-25 metres of depth.

A diver who is down at or below 24m-25m, may very will be able to focus on his photography, but there will be a decrease in the diver's general awareness of the environment around him.

As a diver continues to descend deeper, the deleterious effects on brain function continue to worsen. Basically, the deeper the diver goes, the more stupid the diver gets.

What are the effects of Nitrogen Narcosis on the brain?

~ similar effect to that of alcohol

~ slowing of mental activity

~ slowing of cognitive reaction time and slower reflexes

~ fixation of ideas (meaning thinking becomes less flexible)

~ difficulty in concentrating and reasoning

~ difficulty in remembering what to do

~ diver observations become inaccurate

~ increase in likelihood of making an incorrect decision

~ diver may lose their concern for safety

Interestingly, the trend in recreational scuba diving, is to recognise that without specialised training and equipment, 30 metres should be the limit for recreational divers.

Some dive agencies have already adjusted their certification courses to recognise the significantly increased dangers of diving beyond 30m. And they are adding to the theory and knowledge as well as the motor skills.

The scuba diving industry is recognising that diving past the 24-25m is already a deep dive, and that beyond 30m requires further training and equipment needs.

There are even several training agencies that stipulate that the maximal recreational depth is between 27-30m (90-100ft). And that to go beyond that, the diver should be taking on 'technical' training.

My 1st question to the readers is:

"At what depth do you feel that your responsibility to the safety of your dive buddy is more important that your need to go deeper?"

Because with increasing Nitrogen Narcosis, you are becoming more cognitively impaired, and thus more of a risk to your buddy.

My 2nd question to the readers is:

"What is your maximum SAFE depth, considering the family who is waiting for you at home, expecting you to return alive and healthy?"

Because each time you choose to dive beyond your training limits, you are SIGNIFICANTLY increasing the risk of having an accident that will either leave you dead, paralysed, or brain damaged.

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