

Helium – because I'm worth it

I was diving a 35 meter wreck with a buddy on OC Nitrox. He is a good competent tech diver. The wreck was on its side so when we made it back to the bow and exchanged signals that it was time to end the dive we were on a metal slope leading down to sand.

<me> <wind> he signalled. <ok> I replied.

He produced a blob and started fiddling with it. It was a nice buddy self inflate. (I had one myself hanging off my right hand wing D-ring.)

Fiddle. Fiddle. Turn. Twist. Rearrange. Pull. Straighten. Fiddle. Finally he got it away but it had taken five minutes, I checked for the flat bit on my computer dump, and he slid the best part of five meters down the side of the bow. We were on our way up.

Back on the boat I asked him what the problem was. "What problem?" he replied.

It should have take maybe 45 seconds not 5 minutes. He was on Nitrox and I was on the rebreather with 20/30 trimix. His brain was at about 30-32m and mine at 13-15 meters.

I like Helium. Helium lets me remember a deep dive. Helium means I get better pictures. Helium means I will be more use to a buddy who has problems and far more use to myself if I have one.

As I said: I'm worth it.

Nigel Hewitt

BSAC Member

The RIGHT Gas?

Getting the right gas for the dive is as important as the right training and the right kit.

Air

Is the gas we are brought up with and live with throughout our lives. It is freely available and relatively simple to compress into our cylinders to allow us to breath under water. It is not designed for that purpose however and the negative effects of the nitrogen (DCI and narcosis) and oxygen (O2 toxicity) it contains provide limits to the safe use of it as a breathing gas.

Nitrox

For shallow (< 40m) diving the benefits of reducing the nitrogen content of the breathing gas can contribute to safer diving by reducing the risk of DCI. The use and benefits of nitrox are now well established to the extent that BSAC incorporated the training for the use of basic mixes within the Diver Training Courses of Ocean and Sport Diver grades in January 2007. Workshops have been produced to allow divers with existing qualifications to gain this valuable upgrade in diving safety and we would encourage all members to avail themselves of this option. The down side of course (because there always is one) is the increased potential for oxygen to cause problems but this is easily controlled through training and careful planning and monitoring of dives.

Many experienced divers insist that the 'real' benefits of nitrox lie in the way it can be used to enhance decompression profiles by using high % oxygen mixes to flush absorbed nitrogen out and increase oxygenation of the tissues. The risks of oxygen toxicity obviously increases and so it is essential that proper additional training and practice are undertaken to ensure the skills are applied safely.

Trimix

The use of trimix (a mixture of nitrogen, oxygen and helium) is becoming well known in recreational diving circles as a gas used for deep diving. The principle is to use Helium to replace some (or for very deep dives all) the nitrogen to reduce the debilitating effects of nitrogen narcosis. This is because helium has a much lower narcotic potential than nitrogen.

What many do not routinely consider is the benefits of using trimix to reduce or remove the narcotic effects of the breathing gas in the 40-50m diving range. Commonly referred to as deep air diving in this range involves the diver balancing their experience to offset the debilitating effects of narcosis. All divers will be affected by narcosis, to a varying extent, as they progress deeper than 30m on air and the slowing of reaction times and awareness of surrounding and developing situations could impact on the safety, and enjoyment or recollection, of a dive. A simple analogy would be with drinking and driving. Over the years the legal drink drive limits have steadily reduced as the degrees of impairment have been demonstrated at even quite low levels of intoxication and serious consideration is being given to recommending that no level of alcohol be allowed.

If you know you are susceptible to narcosis but wish to dive safely beyond 30m then a Sport Mixed Gas course would be the only way to go. If you are convinced that you are unaffected by narcosis when breathing air to 50m then trying trimix just once may change your view.

The gas may cost a bit more but to quote Nigel once more "Helium – because I'm worth it"

Think SAFE – Dive SAFE

Jim Watson

BSAC Safety and Development manager

For more detail and information please visit www.bsac.org/page/45/diving-safety.htm