In the chamber

How does a 60 meter dive on air really feel?

The depth gauge says 60.2 meters, and my voice sounds like Donald Duck's. My fingers are so numb they feel like they belong to someone else and I get disoriented just by turning my head – it feels like it keeps spinning

These are symptoms you are likely to get while diving, if you venture too deep or have the wrong gas in your tanks. It goes without saying that it would not be a good experience under water, not to mention downright dangerous. Luckily, we are not under water, but in the safety of the decompression chamber at the Ullevål university hospital in Oslo.

Safe environment

I have never dived to 60 meters, not on air or anything else – and I will not try to do so after this experience, except maybe on trimix. For those wanting to be a deep diver a trip to a decompression chamber is certainly a wake-up call. If your body functions this badly at depth in a warm, safe environment – how will you handle things when it's cold, dark, bad visibility, current and stress? I for one do not want to find out. For those who want to feel the tug of the deep, Oslo-based dive shop Dykkersport hosts trips to the decompression chamber at the Ullevål university hospital. I was surprised when I got there – the room was full of people and it took three turns in the chamber for everyone to experience the deep and the effects of nitrogen narcosis, high pressure and air.

Lifesaving treatment

The decompression chamber at Ullevål is operated by the local fire department, and three of their rescue divers were present to serve as "tenders" – the person responsible inside the chamber when it is under pressure. The chamber was established in 1981, and since then around 50 treatments a year has been conducted. About half of these are different kinds of medical treatments on regular patients, and the rest are divers who have had some kind of accident – the bends or regular decompression sickness, DCS. Most of the time, divers are put in the chamber as a precaution, but sometimes it is serious and the treatment is lifesaving or at least very important to avoid serious consequences after an accident.

Drunk as a Skunk

Our "dive" in the chamber is luckily just exciting, and no-one has to worry about DCS. There is a loud hiss as compressed air is pumped into the chamber, and pressure on the ears is sudden and persistent. Equalizing immediately becomes a necessity! The chamber operator takes us down to three meters to make sure everyone's sinuses are clear and up for the dive – and then we drop to 60 meters in just 2-3 minutes. It felt just like being on a rollercoaster and seeing the top of the track getting closer… knowing that there is a drop on the other side. Exciting!

On the way down you can feel the nitrogen narcosis taking effect, but it is when you hit the bottom (so to speak) the effects of air and depth really hits you: It is hard to breathe air that is seven times denser than on the surface – it feels more like a thin liquid. When you wave your hand through the air you can actually feel the density! Initially I feel pretty good, but when I turn my head to look at the guy next to me it feels as it just keeps spinning. I am dizzy, off balance and completely unable to think straight. Boy, am I glad I'm not in the water!

The pressure also affects your vocal chords, and the moment you speak you sound just like Donald Duck. Laughter is quickly spreading in the chamber, resulting in even more laughter because it just sounds completely ridiculous. Still, we are trying to discuss how we're feeling – but even quite serious narcotic symptoms like numb fingers, dizziness and complete lack of coordination is lost in a cascade of cartoon-like laughter. We are completely wasted! The party goes on, and it doesn't take long before the classic Beatles tune "Yellow submarine" reverberates through the chamber.

When it's serious

If a diver has had an accident and needs recompression, the depth is naturally shallower than 60 meters. A normal recompression treatment takes place at 18 meters depth, and can last anything from a few hours to several days of repeated treatment, depending on the situation. The atmosphere inside the chamber quickly grows moist, dense and very warm, and I can only imagine the stress a real patient must feel in addition to these nuisances.

I don't know if I would be scared to death or relieved if it was me in the chamber – maybe a little of both. I would be scared of the consequences of DCS, but relieved to be under treatment and taken care of by seasoned professionals. Anyway, it is not a situation I want to be in – or want anyone else to have to experience. I will definitely keep this in mind on future dives, especially when the devil of the deep is trying to lure me down for a visit into his kingdom.

Slow decompression

After about five minutes on the bottom, the operator takes us back up to 18 meters depth. We're doing the ascent nine meters a minute, and the temperature is dropping sharply. The moisture in the air condenses in large clouds, and every surface inside the chamber is moist and dripping.

The fun is over, and now we're paying the price for our five minutes in the deep. We are being decompressed in several stages on our way back to the surface – 5 minutes at 18 meters, 5 minutes at 15 meters, 5 minutes at 12 meters. We're waiting. Time passes slowly, and we're starting to feel normal again. Only at 12-15 meters depth does the last of the funny Donald Duck voice go away, and I'm glad we don't talk much on normal dives – I would have laughed my head off as soon as we passed below 20 meters.

The two longest decompression stops are done at 9 and 6 meters. We're doing a full 10 minutes at each depth, and both stops are done breathing pure oxygen from BIBS (Built-In Breathing System) masks hanging from the roof. This is not done to shorten the decompression time, but to increase safety.

Post-dive stomach fatigue

Finally, decompression is over and we can stagger out of the somewhat cramped confines of the decompression chamber. All our stomachs are aching, but this is just from laughing so hard and has nothing to do with depth or decompression. It was a fun dive, and a good learning experience. I hope all of us got even more respect for depth and air after this. As I'm leaving the hospital, an ambulance helicopter lands on the roof. Doctors and nurses are standing by, ready to deal with whatever has happened. This is serious, this is the real thing. I just hope it is not a dive accident.

About the Author

Christian Skauge is a former Nordic Champion of underwater photography, winner of several national and international photo contests.

He worked as editor for the Norwegian dive magazine Dykking and his stories have been published worldwide.
To see more of Christian’s images: www.scubapixel.com.