



opinion

Text by Simon Pridmore
Photos by Peter Symes

Confronted by a genie with a lamp and three wishes, many new divers would ask for a magic spell to make their air last longer on a dive.

The good news is that you don't actually need a genie or a lamp and the key to better air consumption is not a secret. Divers usually find that their breathing rate drops as they become more experienced, simply as a consequence of their becoming more relaxed and comfortable in the water. There are also a number of other things you can do, such as wear less weight, work to improve your buoyancy control, avoid unnecessary movement when you swim and learn to keep a horizontal, streamlined position in the water.

However, the single most effective way to reduce the amount of air you consume on a dive is to learn to breathe like a diver.

Don't just breathe normally

Despite what many new divers are told when they begin, you do not breathe "normally" when you are underwater on scuba. Instructors only say that to try to reassure new students that diving is easy

and dispel their fears.

When you are underwater, you are breathing air under pressure and the air is therefore denser than the air you breathe from the atmosphere when you are on land. You are also breath-

ing through your regulator, an artificial device that extends the distance between your lungs and the source of the air, something referred to as "dead air space."

Because of these two factors, if you

breathe haphazardly without thinking about it, as you do on land, turbulence within the dead air space will prevent much of the air you breathe in from reaching your lungs. You will just breathe it all out again without the important oxy-

gen-carbon dioxide exchange having taken place—which is the whole point of breathing after all!

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Scuba Confidential

The Perfect Diving Breath





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The perfect diving breath

You need to learn to breathe from the diaphragm, rather than the chest. How do you do this? When you inhale, push your stomach out so that it distends to allow your lungs to expand and draw as much air in as possible. Push it all the way out. Don't worry, no one is watching!

When you exhale, compress your stomach muscles to reduce your lung volume to a minimum and breathe out slowly and continuously until it feels like there is no air left to exhale.

Then breathe in again. Ideally, each inhalation should last for five to seven seconds and each exhalation at least seven seconds, giving you a breathing cycle of around 12 to 15 seconds and therefore a very efficient breathing rate of about four to five breaths per minute.

Avoiding stress

As well as reducing your breathing rate, this extended cycle of deep inhalation and full exha-

lation will also ensure that the transfer of gases is as effective as possible. More of the oxygen you breathe in will be transferred from your lungs to your bloodstream and more carbon dioxide will be removed from your body.

This benefits the diver enormously. A build up of carbon dioxide in the body induces stress and anxiety and can lead to panic, so breathing in such a way as to reduce your carbon dioxide levels helps you become more relaxed.

It also enables you to deal better with problems that occur underwater, as a calm mind can think rationally. Additionally, if you have developed your long, slow breathing technique to the point where it has become instinctive, your breathing rate will not increase in an emergency, giving you more air and time to solve the problem.

Get into the habit

Breathing from the diaphragm does take a little getting used to, but you do not have to be actually diving to practice the technique. This is something you can do any time, anywhere, while

you are riding the bus, sitting in your car in a traffic jam or watching TV. A good exercise is to lie on the floor, put a dive weight on your stomach and focus on moving the weight up and down by slowly breathing in and out. The idea is that your chest should move as little as possible during the breathing cycle. As you do this, breathe through lips pursed, as they would be around your regulator mouthpiece. Draw the air in slowly and release it slowly, don't guzzle and belch!

Practice until the perfect diving breath becomes an automatic component of your diving behaviour. You will be impressed at the difference it makes to your comfort level in the water and you will notice your air consumption rate start to drop dramatically—no magic required! ■

Simon Pridmore has been part of the scuba diving scene in Asia, Europe and the United States (well, Guam) for the past 20 years or so. His latest book, Scuba Confidential, is available in paperback, audiobook and e-Book on Amazon.

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