

ADVANCED FREEDIVER COURSE

INTRODUCTION

Welcome to the Advanced Freediver course. During this course, under the tuition of your instructors, you will learn to increase your breath-hold abilities and performance beyond your imagination. Your instructors will guide you to maximise your Mammalian Diving Reflex with advanced breathing techniques and chest flexibility exercises that will increase your performance in freediving as well as in any other sports that you pursue. This course will introduce you to the discipline of Static Apnea, where you will discover that your body can suspend respiration for several minutes without feeling the urge to breath. You will also learn and practise Exhale Dives, which is to freedive after exhalation, where you will discover a new world of sensations and personal potential underwater.

... Hold your breath ...

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FOUR-SECTION BREATHING

The four-section breathing is the technique where we fill our lungs fully by focussing on moving the different parts of our torso to allow for maximum expansion and comfort for our lungs.

We divide the torso into four different sections:

- **Stomach Section** – We focus on expanding our belly outwards, stretching our diaphragm to allow for maximum room for the lower part of our lungs to expand comfortably.
- **Middle Section** – We should focus on our attention on expanding the ribcage out towards the sides while inhaling at the same time. This movement will require more practice and training since it is difficult for the novice to achieve it correctly and therefore experience the benefits.
- **Upper Chest Section** – We will expand the upper chest towards the front to provide maximum room for the upper area of the lungs.
- **Back Section** – After successfully completing the first three sections of inhalation and without breaking the rhythm of our breath, in a downward movement with our chest together with the pressure created in the diaphragm we will allow our body to create extra room to fill our lungs to the maximum. This section will require a lot of practice and training. It is advised for the novice to practice on land the different movements and in the water to breathe with the first three sections and introducing the fourth section only when we are comfortable with it and without tension.

The Apnea Total Instructors will guide you through the four-section breathing technique to achieve the greatest benefit. The speed of inhalation and exhalation, the sound, the movement of the different sections and improvement of these techniques can only be achieved under the tuition of the Apnea Total Instructors combined with personal practice.

The four-section breathing is a great tool to increase your lung, diaphragm and chest flexibility when practiced on land regularly.

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FREEDIVE BREATHE-UP PATTERN

During this course you will learn the magic of exhale diving as well as deep diving, therefore a correct breathing technique as well as the correct breathe-up before a dive is essential in order to establish the correct levels of O₂ and CO₂ in our bodies. This will determine the success and comfort during our dives allowing our body and mind to be relaxed.

On this Advanced Course, the breathing time at the surface before a dive should be around 5 minutes and be no longer than 6 minutes. We divide the breathe-up in three different stages:

- **Agitation 5 Cycles** – These cycles are designed to loosen our muscles involved in the respiration. These cycles are deep and strong; not hyperventilation. The sections are not involved during these cycles.
- **Exchange 5 Cycles** – This is the most important part during our breathe-up. Maximum level of O₂ will be attained in our body as well as the correct levels of CO₂. We should have maximum body and mind relaxation at this point. The correct use of four-section breathing will be essential.
- **Relaxation 2 Cycles** – After the completion of the exchange phase we will finalise our breathe-up with 2 relaxation cycles, these are made with the four-section breathing technique but without the use of our total lung capacity; around 60% of relaxed inhalation is our aim.
- **Final Breath** – We will use the four-section breathing technique to take our last breath, which should be made with greater speed than our regular breathing cycles but without losing our relaxation. No matter what type of dive that we are going to do, the final breath should always be 100% inhalation.

During our breathe-up we will be using **flushes**, which are explained to you by the Instructor during this Advanced Course. The use of the flushes correctly is crucial to achieve a successful breathe-up for a dive. The Instructor will tune-up your breathing technique and breathe-up according to your needs. Everyone is different when using the four-section breathing, the flushes and the breathe-up before a dive.

EXHALE DIVES

During this course you will experience exhale diving. There are multiple benefits from this type of diving, which includes:

- It is the greatest way to trigger our Mammalian Dive Reflex.
- It will simulate greater pressure, adjusting our lungs for deep diving.
- It is a very comfortable way of diving; we have less buoyancy at the surface which will make our descent easier and our heartbeat will start the dive more relaxed and slower following an exhalation after our final breath.
- It is a great tool to improve our equalisation techniques.

Exhale diving should always be made under the supervision of an experienced Instructor, who will guide you during your preparation and dives to achieve the most from this way of diving.

Exhale dives without the correct knowledge or tuition will greatly increase the chances of badly hurting yourself.

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DEEP DIVE PREPARATION

Always before a deep dive we should ensure that our body is ready, our lungs are ready to take the pressure that we are aiming for, as well as having a realistic target.

Our deep dive preparation is as follows:

- **Stretching** – On the boat we start our preparation with a full and relaxed body stretch. This will aid to release any tension that we may have in our muscles.
- **Breathe-up** – We then follow with a full breathe-up on dry to warm up our lungs and relax our mind.
- **Facial Immersion** – We enter the water to perform 4 to 5 minutes of facial immersion, which is made by breathing through the snorkel without a mask so that our main receptors around the eyes, upper lip and forehead has full contact with the water. This will start to trigger the Mammalian Dive Reflex.
- **N.P.S.A** – Negative Pressure Static Apnea. The Instructor will guide you through this exercise which you can also use prior to any other underwater activity. This involves 2 breaths on the surface, followed by a strong exhale, submerging your full body about 1 metre from the surface, wait for diaphragmatic contractions to arrive and do not count more than 2 before returning to the surface and repeat. This exercise lasts for 5 minutes and will prepare our body to perform our first exhale dive.

- **Two Exhale Dives** – We perform two exhale dives to warm up our lungs and to trigger our Mammalian Dive Reflex to the max. This will also help us to withstand the greater pressure we will experience with a deep dive.

We are now ready for a deep dive.

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CONSIDERATIONS

During this Advanced Course, guided by your Instructor, you learnt the importance of a positive attitude towards a dive. This is particularly important when we are aiming for a deep dive. Doubts, hesitation or having the wrong attitude towards a dive will greatly increase the chances of failure, which is not a problem; remember to always dive for yourself and not for others. However, the significant impact of such negativity towards a deep dive is that it will increase the chances of hurting yourself.

Freediving is one of the healthiest sports you can practice, which can easily turn against you by bad judgment, being irresponsible or trying techniques that have been read from the internet or have been taught by someone without the necessary knowledge and experience.

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