



Try Freediving Course

This document is not intended as an Instructor's manual nor for publication or reproduction in any form. It should not be used for instruction by unqualified Instructors or for self-instruction. You also may not give or lend this document to any other party who wishes to learn to freedive. This document is not a substitute for continued freediving with qualified and experienced buddies. The author, RAID, SSI, AIDA, or any of their affiliates do not accept any responsibility for any harm or injury or fatality resulting from the unauthorised use of this document.

Remember, freediving has inherent risks, which may result in serious injury or death. It is imperative that you never dive or train in the water without an experienced buddy with you at all times.

A short history of freediving

Freediving is breath hold diving and has been practiced from the dawn of civilisation. The Aquatic Ape Hypothesis postulates that a few million years of our early evolution was spent in the shallows of the ocean, giving rise to our layer of subcutaneous fat and hairlessness amongst other traits, and in more recent times, mummified remains of the Chinchorians in Chile, a people who lived 10,000 years ago have been found to have a condition known as 'exostosis' in the ears brought on by repeated exposure to cold water in the search for food.

Over thousands of years our ancestors have dived for food, pearls, sponges and other objects of value, and to retrieve objects lost overboard. Alexander the Great even used freedivers in warfare, to cut the booms preventing his ships accessing the harbour during the siege of Tyre.

A more recent recorded account of a freediver came in 1913 when the Italian Navy lost the anchor to the pride of their fleet, the 'Regina Margherita' in 60 metres of Greek water. Two crew members lost their lives trying to retrieve it, until along stepped Giorgios Haggi Statti, a small, half deaf Greek sponge fisherman with Pulmonary Emphysema. The ships doctor examined him and pronounced him unfit to dive, whereupon Haggi Statti took a large stone as a weight and jumped into the water for dives of over three minutes. On his third attempt he found the anchor and when it was retrieved he was awarded five pounds and permission to fish with dynamite...

Whilst the case of Haggi Statti was recorded, the first 'official freediving world record' came in 1949. Despite the dire warnings of doctors who said that he would die from the crushing pressure, a Hungarian, Raimundo Bucher swam down 30 metres off Naples to hand a sealed parchment to a waiting scuba diver, a man with whom he had placed a bet of 50,000 lire. He returned to the surface unscathed and changed the face of freediving forever.

Over the next forty years, people began to descend not for food or commerce, but to test the limits of the human body and spirit. Whilst Bucher had dived with fins, freedivers turned to using a weight to get them to depth, and then a lift bag inflated with air to get them back to the surface. This is the discipline known as 'No-Limits' and although it features in the iconic film 'Le Grand Bleu' and in the pages of newspapers, it is a discipline that is practiced by very few freedivers today.

In 1996, the world's first 'freediving competition' happened in Nice. With freedivers from all over the world, each competitor did a 'Constant Weight' dive and a 'Static' breath hold, gaining one point for every metre they dived and every six seconds that they held their breath in the static competition. At the end of the event, the points were added up and the winning team and country announced.

Competitions have changed very little since then. Nowadays a third discipline, Dynamic Apnea has been added and the seconds that you are awarded a point during the static competition has been reduced to 5. In 1992 AIDA was founded. This international organisation ratifies records, holds competitions and sets the standard for courses.

Whilst competitions and world records may make the headlines, the majority of people who learn to freedive, do so for other reasons. Freediving is an amazing way to explore the underwater world without the bubbles that are can scare away the fish.

There's nothing more peaceful and magical than freediving down a reef wall or floating silently through a wreck. Many people also use freediving skills to shoot fish, both with a camera and with a speargun! However you choose to freedive you must learn about the risks and how to avoid them by taking a recognised course.

Benefits of Freediving

The benefits of learning to freedive stem primarily from learning how to breathe correctly. Our instructors will teach you the principles of diaphragmatic breathing, this is 'belly breathing', something we did when we were babies, but that in many people has been a skill lost in a lifetime of stress, inactivity and poor posture.

Many people learn how to control their breath because they are scuba divers and want to learn how to use less air underwater and move more hydro-dynamically. Some people learn to overcome a fear of water. The breathing techniques are also very effective in preventing and dealing with anxiety and panic attacks out of the water.

You don't have to be young and superfit to learn to freedive. It's a sport that is truly open to anyone. And when you learn how to take control and listen to your body, you discover all kinds of positive effects in all areas of your life!

Try Freediving Short Course

On this course you will be learning the basics of freediving safely, how to breathe correctly both before and after a breath hold, how to buddy, and also how to avoid and deal with any potential problems. In the water session you will be learning about static and apnea.

Static Apnea

Static Apnea is the freediving discipline that requires the least physical effort but possibly the most mental effort. You simply hold your breath and lie face down on the surface of the water, usually a swimming pool.

There is no swimming to take your mind off the activity and so you must find ways to calm your body; some suggestions are below. Each time you do a static breath hold you will learn more about your body and how it reacts. It is important to always listen to your body and not to zone off so much that you either fall asleep (it has happened!), or fail to recognise that you should end the static breath hold.

It is common for people performing static holds for the first few times to want to let air out to make themselves feel more comfortable. You should never do this as it is depriving your body of vital oxygen supplies and is a common sign of a black out. If your buddy exhales any air then you should bring them up out of the water.

With all freediving activity you should always discuss with your buddy exactly what you will be doing and then stick to the plan. Always return taps.

At the end of the breath hold your buddy should encourage you to breathe and look at your lips (or tongue if the water is very cold) for signs of cyanosis. If they are blue, purple or very pale then this is a sign you have reached or are near your limit.

Remember! Your limits will change every day and are based on your fitness, what you have eaten (or not) that day, how tired you are and so on. You should never assume that your performance can be automatically repeated or bettered in the next session. Sustaining a hypoxic fit or black out is not a sign that you have 'reached your limits' but that you have vastly exceeded them. A hypoxic fit or a black out will tire your body more than you realise and it is important to avoid them.

When exploring your limits it is important to use the advice of your instructor. Their experience will ensure that it is extremely unlikely that you will sustain a hypoxic fit or a blackout. Just relax and enjoy the experience!

SAFETY RULES

- 1) **Medical exam-** all participants must have taken and provided a recent medical exam. The format of which must address any cardiac and respiratory problems. The Go Freediving recommended medical form will suffice as the appropriate documentation.
- 2) **Buddies-** Any time any apnea is taking place each person must have a buddy to monitor them throughout the training. Agreed signals must be established before the training takes place. Usually after a pre-determined time (within the expected breath-hold time), a tap from the safety diver should be acknowledged by a hand signal. The system of tapping should be employed at 30 second intervals for the first minute after tapping has commenced and then at 15 second intervals thereafter. Discuss with your buddy how you would like your taps. Some people prefer fewer. However you should be tapped at least every 15 seconds for the last third of your breath hold. If a diver fails to respond to the tap a further tap should be given. If the diver fails to respond a second time, the buddy should immediately remove the diver's face from the water. Characteristic signs of hypoxic stress during apnea may include muscular twitching, sudden exhalation and/or failure to acknowledge tapping.
- 3) **Buddying for Dynamic-** In the practice of dynamic training the buddy should either swim alongside the partner or meet the partner in the water at an agreed distance towards the end of their dive. This must be at least the last third of the expected minimum distance.
- 4) **Always perform static breath holds on the surface-** At no time should a static breath hold be attempted on the bottom of the pool.
- 5) **Static breath holds on empty lungs is not recommended-** This is an advanced practice and can result in injury. It should only be tried under the direct supervision of a qualified AIDA instructor.
- 6) **Maximum breath holds-** Should NOT be attempted frequently. A combination of a maximum breath-hold attempt in either static or dynamic in the same day will increase the chance of a samba.
- 7) **Do not continue to practice after a hypoxic fit or blackout-** There is an increased risk of further fits or blackouts.
- 8) **Do not attempt a static breath hold after a dynamic session-** Due to the physical nature of dynamic training your body will be tired and therefore is not in the ideal condition for a static breath hold. However doing a static breath hold before a dynamic is fine.
- 9) **Start breath holding slowly and build from there-** Your body needs time to adapt, so take it slowly.
- 10) **Beware of the cold and tiredness-** When you are cold your breath hold time is reduced and your concentration levels are reduced. Fatigue reduces the amount of will power you have, therefore, if you practice when you are tired you will not see progression.
- 11) **Do not use a snorkel-** Only use a snorkel at the very start of a session when you are acclimatising to the temperature of the pool. They should not be used for 'breathing up' or kept in your mouth when breath holding.
- 12) **Suit-** Using a suit during static breath holds has advantages. First it provides warmth for long training sessions and, secondly, the flotation given to the body aids relaxation.
- 13) **Eating before training-** It is advisable to practice breath holding on an empty stomach. The digestive system requires a very large quantity of blood to

digest food, therefore reducing the amount of blood that can be provided to the vital organs.

- 14) **Keep well hydrated-** This will make your breath holds longer and ensure that the risks of black outs and samba is minimised
- 15) **Never wear mirrored goggles or mask-** This prevents your buddy from seeing your eyes and state of consciousness
- 16) **Try not to let pool water enter your eyes, nose, ear and mouth-** Swimming pool water is often high in bacteria that can cause infections.

Signs to look out for in Static Apnea- The following are a number of signs that you should look for in your buddy when a static breath hold is attempted.

- Blowing bubbles or releasing air
- Sudden contractions of muscles/movement of limbs
- Releasing the side of the pool
- Trembling
- Sudden reduction of contractions
- Failure to return agreed signals

Signs to look out for in Dynamic Apnea- The following are a number of signs that you should look for in your buddy when a dynamic attempt is taking place.

- Erratic movement
- Loss of direction
- Sudden cessation of movement
- Release of air

If any of the above signs are observed then you should take the following action:

- 1) Remove the person's face from the water and support them
- 2) Remove their mask, goggles and nose clip
- 3) Blow on to their face
- 4) Talk to them calmly without shouting. Say their name, encourage them to breathe, tap their shoulder
- 5) If consciousness has not returned within 10 seconds, start artificial resuscitation via mouth to nose rescue breaths
- 6) If consciousness has not returned within a minute, call for help and prepare to perform CPR

Your Static Apnea session

In this session you will be slowly increasing the time that you can hold your breath for. Ensure that you breathe up is extremely relaxed and that you do not hyperventilate. Your instructor will not let you go further than they think is safe or necessary so you can concentrate on relaxing your body as much as possible without the fear of a hypoxic fit or blackout.

Preparing for your static session

- Stretch for 10-15 minutes, especially the upper body
- Lie down and relax for a few minutes and then enter the pool slowly
- Using a snorkel, lie face down in the water for a few minutes (2-5) to acclimatize to the conditions of the pool. Preferably do this without a mask (but with a nose clip) so that as much of your face is exposed to water as possible, activating the dive reflex
- Put on your mask and lie on your back. Relax and breathe gently through your mouth. Do not put any strain on the inhalation or exhalation. Try and make your exhalation longer than the inhalation. Be sure not to hyperventilate. Breathe for 2 minutes (roughly 12 slow breaths), then take a very deep breath and roll onto your front
- Your buddy should tap you at 30 seconds, at which point you should place your feet on the bottom of the pool, raise your head clear of the water and breathe.
- When you have got your breath back, talk to your buddy and instructor about how the breath hold felt. Then, when you are ready, lie on your back and breathe down for another 2 minutes. At the end of the breathe down, roll onto your front and hold your breath for 1 minute. Your buddy will tap you at 30 seconds (and you will return the signal) and then at one minute, at which point you will come up. Recover as before. If you feel the urge to come up sooner then do so. Do not push yourself if you feel uncomfortable.
- Breathe down again on your back for 2 minutes and then roll over and hold for 1.30 minutes, recovering as before. Your buddy will tap you at 30 seconds, 1 minute, and 1.30.
- Relax and after a few minutes lie on your back and breathe very gently for 3 minutes. Roll over onto your front and hold, if you can, for 2 minutes. Your buddy will tap you at 30 seconds, 1 minute, 1.30, 1.45 and 2 minutes.
- If two minutes was comfortable for you then lie on your back and breathe very gently for 3 minutes. Roll over onto your front and hold for longer than 2 minutes but no more than 3. Your buddy will tap you at 30 seconds, 1 minute, 1.30, and every 15 seconds after that.
- You may find that you feel 'stuck' at a particular time. If so, repeat this time before trying a longer hold so that your body gets used to the sensations.

Your breath hold session

2 minutes ventilation	30 second hold
2 minutes ventilation	1 minute hold
2 minutes ventilation	1.30 hold
3 minutes ventilation	2 minute hold
3 minutes ventilation	max breath hold
	(less than 3 mins)

It is important that you work out what kind of preparation best suits you. Experiment with the guidance of your instructor.

What you may feel:

- At the start of the hold you may feel light-headed. This is a sign that you may have hyperventilated and that the next breathe up should be gentler
- You may feel too 'full' of air. If this sensation does not pass then at your next breath hold (but not during this one) take in a little less air. You should not exhale once the breath hold has commenced as it is a sign of black out and your buddy will remove you from the water. It also reduces the oxygen available to you
- Contractions. These may be very light or cause your whole body to convulse. Try to resist them as much as possible but do not push yourself past the comfort zone
- The urge to urinate. This often occurs when the breath hold has entered the struggle phase
- Burning sensation in your body

What helps pass the time

- Visualisation. Imagine white light pouring into your body, take yourself on a tour of your home, remember each stage of preparing your favourite meal, count backwards in multiples of 13 from 1,000. Choose whatever takes your mind away from the fact that you are holding your breath
- Relaxation. Go through each muscle in the body ensuring that all are relaxed
- Have your buddy gently coach you, encouraging you in the hold
- Recite the words to your favourite song

How to recover correctly

- Some people find that gently placing their feet on the bottom of the pool aids their recovery at the end of the hold
- Make sure that your head exits the water slowly. Do not jerk up your head.
- Concentrate on breathing quickly, getting as much oxygen back into your system as possible
- Do not attempt to talk or remove your mask until recovered
- When ready, lift your head, remove your mask/nose clip/goggles, give the okay sign and say "I'm okay" to your buddy

Your Dynamic Apnea session

Dynamic apnea is performed along the bottom of a pool or in a shallow bay. If the pool has a deep end then you should ensure that you aim to finish your dynamic in the shallow end of the pool.

Your buddy should swim above you very fast with mask, fins snorkel and float for at least the last third of your swim. They should ensure that they are swimming above you all the time and that the float is in front of you to hold onto when you surface.

With dynamic apnea, it can be difficult to stop when the end of the pool seems so close... Always surface when you need to.

If you are wearing a wetsuit then ensure you are wearing a weight belt, and/or a neck weight. This will ensure that your dynamic swim is easier as you are not fighting the buoyancy of your suit.

A good warm up is a couple of light static breath holds. Do not push yourself. Breathe gently in an upright position for about 2 minutes or take 12 slow breaths. Make sure your last exhalation and inhalation are complete and then duck down and push off from the end of the pool.

Concentrate on keeping even strokes. Tuck your head in and follow the lines of the pool. Do not rush but be as relaxed as possible. You should be aiming for a speed of between 1 and 1.5 metres a second.

Where to go next

RAID Freediver course – [In the UK](#) and on our [holidays abroad](#)

Join the [Go Freediving Club](#)

All further course info <http://www.gofreediving.co.uk>

Further reading and resources

One Breath: A Reflection on Freediving

Emma Farrell

Pynto Ltd

www.pynto.com/onebreath

Manual of Freediving

Umberto Pelizzari

Idelson Gnocchi Ltd

www.deeperblue.net/books

The Breathing Book: Good health and vitality through essential breath work

Donna Farhi

Henry Holt and Company ISBN 0 8050 4297 0

YOGA The Path to Holistic Health

B.K.S Iyengar

Dorling Kindersley ISBN 0 7513 2617 2

Freediving Equipment

Go Freediving has all the kit that you need, chosen to be the very best for your needs!

Document Author

Emma Farrell

RAID, SSI & AIDA Instructor Trainer

Acknowledgements

David Morgan

RAID & AIDA Master Instructor and SSI Instructor Level 3