

# 15 basic rules for safer free diving

1. Always free dive in pairs.
2. Do not ever hyperventilate.
3. Always take your signal buoy with you (with the appropriate flag).
4. Never keep the snorkel in your mouth while diving.
5. Do not ever force equalizing.
6. Take time to rest between dives.
7. Use a buoy weight ballast which does not weigh you down too much (positive buoyancy in the last 10 metres.)
8. Be careful not to get dehydrated, drink little and often even if you don't feel you need it.
9. Do not free dive on an empty stomach or after heavy meals.
10. Always do some warm up dives, but not beyond 5 metres.
11. Listen to your body and its needs.
12. Follow a free diving course with qualified instructors.
13. Carry out a medical check at least once a year.
14. Respect environmental rules (natural park restrictions etc).
15. Always have a means of communicating with you (a cell phone, Vhf radio etc).

## Details about the “15 rules”

1. The most common and feared accident in free diving is loss of consciousness (black out) and the best way to prevent it is to be aware of basic rules of free diving, constant respect of your own limits and knowledge about yourself. Almost all black outs can be resolved without serious consequences if you have a diving partner by your side able to help you by taking your face out of the water and providing assistance up until when the body does not regain consciousness.
2. Hyperventilating is carrying out a regular series of breaths in order to reduce the quantity of carbon dioxide present in our blood. It is very important for a free diver to be aware of this, because he/she must always listen to and have respect for responses to breathing stimuli. Furthermore, hyperventilating does not increase the quantity of oxygen present in the blood and therefore it is not advantageous for free diving. It only takes a few forced breaths (even only 6 or 7) to have the effects of hyperventilating, effects which we do not see if we breathe normally (using the whole diaphragm and respecting a natural rhythm. If during breathing, you experience tingling of hands and face or other signs of hyperventilating, stop the dive preparation and wait a few minutes before free diving again.
3. It seems incredible but getting hit by a boat is the most likely risk for free divers as unlike scuba divers with the re-breather device, they spend a lot of time at the surface preparing the dive. Even if they are often ignored, the signal buoys are the only means of indicating our presence. If there is also a boat with a flag indicating that there are divers present in the area, the risk of such accidents is significantly reduced.
4. With the snorkel in one's mouth at the end of the free dive when we really need to fill the lungs with oxygen, we are obliged to breathe out right at the moment in which we really need to re-fill the lungs with oxygen. To empty the snorkel, the only option is to carry out intensive exhalation. Recent scientific studies carried out on free divers during cardiac nuclear magnetic resonance (NMR) showed that there are important physiological basics to advise in order to avoid this effort at the end of a free dive. Furthermore, should a black out occur, the snorkel allows water to get into the airways.

5. Equalizing should be a simple gesture which takes places without too much effort, and if not, then its likely that acute or chronic problems stop the opening of the Eustachian tube, through which air must pass to reach the middle ear area. Excessive equalising efforts can cause barotrauma in the ear with potential breakage of the tympanic membrane or in more serious cases irreversible damage to the internal ear with permanent hearing problems.
6. Remaining at the surface for twice as long compared with the duration of the dive (or three times as much for deeper dives) allows the organism full recovery before more dives preventing very particular conditions like "Taravana." We don't know how much this is linked to the recovery of a correct oxygenisation or elimination of toxic substances or nitrogen accumulated in tissues at depth, but the double/ triple recovery seems to be a good cure.
7. The last metres climbing up to the surface are the most difficult, if they are not well ballasted, i will climb up easily in positive buoyancy right in the last metres, the most difficult ones.
8. Immersing the body in water determines the liberation of the heart of the natriuretic hormone which causes urination and problems with thirst. Especially during long spearfishing sessions we have to drink even if we don't feel the need, as dehydration reduces our capability making it difficult to reach the depth we are used to.
9. Free diving consumes a large quantity of energy and a lot of protein, especially for long fishing sessions for which it is advised to stop for a few minutes to rest and give energy back to our bodies... A small meal full of carbohydrates (or more specifically foods derived from cereals before free diving activity, and usually rich in nutrients to ensure energy for our bodies. If the activity takes longer than 2 hours it is necessary to have further support from the same type of nutrients, in small doses. However, digestion requires a lot of blood in the digestive tract and this reduces the safety of our dives.
10. As with every sporting activity, it is important to do a warm up to allow the body to prepare for movement, and for free diving, this can allow gradual adaptation to pressure. For example,you just have to do a few dives (3 to 4 at most) carried out at 5 metres depth to allow the lungs the opportunity to adapt to the blood flow during a free dive (called blood shift) Small exercises like this are very useful for reducing problems with hemoptysis for free divers.
11. If you are tired, if you have a problem with your equipment, if you have cramps, stop the free dive or fishing session immediately...At sea, it is very relaxing and you can usually sunbathe a little.
12. At a free diving course, you will learn the basic rules for safe free diving and you will meet lots of friends to go free diving with.
13. Respecting environmental rules is very important especially for those who would like to experience underwater nature.
14. A detailed medical check ensures you have no heart or respiratory or metabolism problems which might be dangerous for free diving. Furthermore, a medical visit will also check your ears, a part of the body which is placed under stress during diving activity and the ears must be in perfect health to be able to dive safely.
15. Should there be an accident, it is important to be able to communicate quickly with emergency services, but be careful, as out at sea, mobile phones do not always have a signal. The best way to communicate is via Vhf radio. Remember to note down the most important phone numbers for water sports (for example, the coastguard, the DAN helpline, Vhf frequency etc.)