

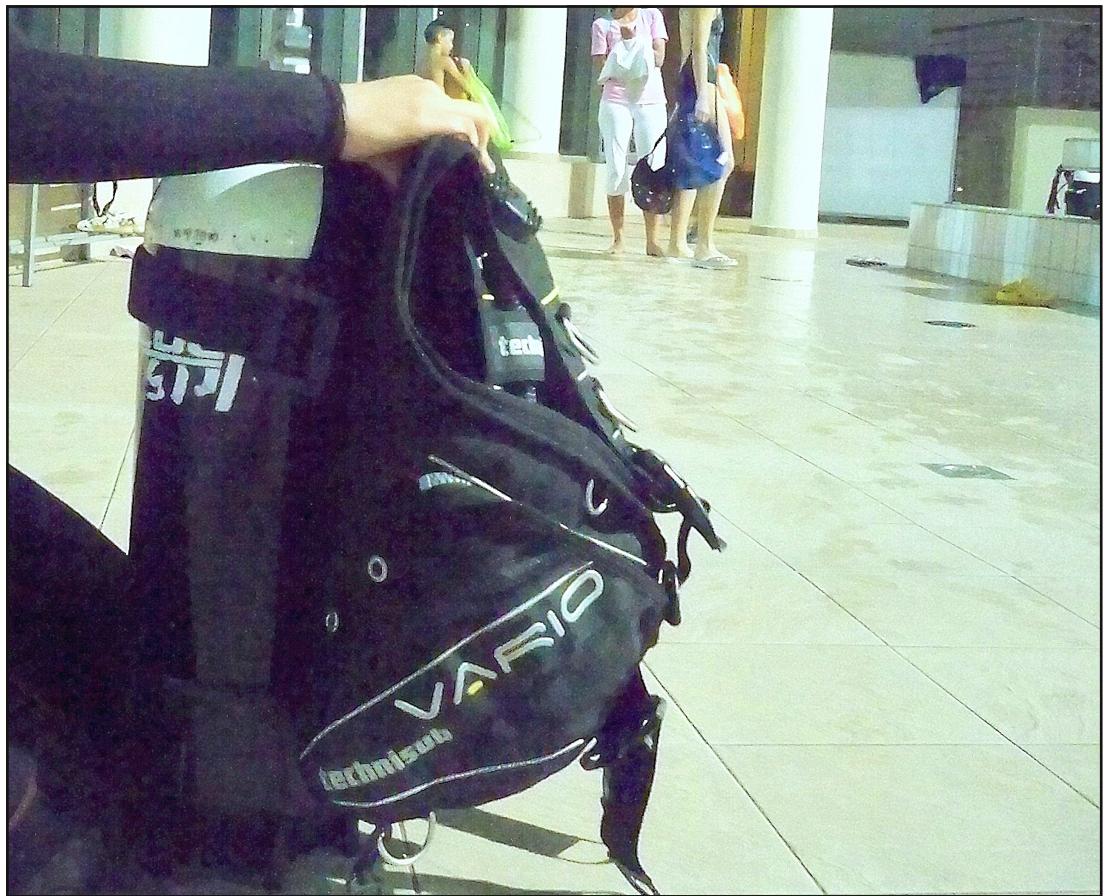
# **Chapter 4**

## ***Basic Diving Skills and Exercises***



## Installation of the BCD on the diving cylinder

Put the diving tank in an upright position. The first step is to put the straps across the valve group and tighten the buckle folding. The neck of the diving tank and top of the compensator should be on the same level. Firmly tighten the strap and ensure a solid connection between the BCD and the air tank.



1) Put the straps across the valve group



2) Place the BCD in the middle of the upper half of the tank



3) Firmly tighten the straps

## Installation of the regulator on the diving cylinder

1) Take off the dust cap of your regulator



2) Place the regulator on the appropriate valve. DIN goes directly in the tank valve, and yoke goes into the o ring fitting



DIN fitting - tank valve, no O ring

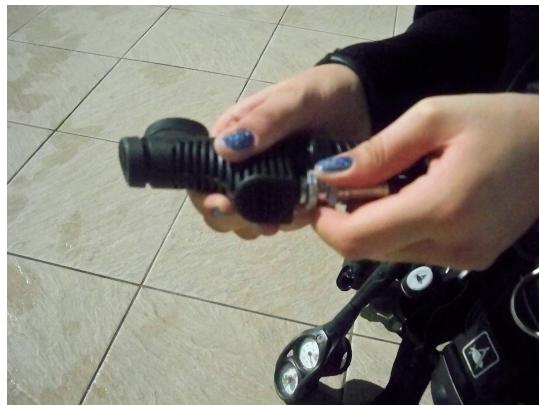


Yoke fitting - valve with O ring

3) tighten the regulator onto the valve with locking screws



4) Attach the inflator hose to the BCD



5) Hold the emergency purge button of the 2nd stage of the regulator and open the valve

7) See how much air do you have in the tank

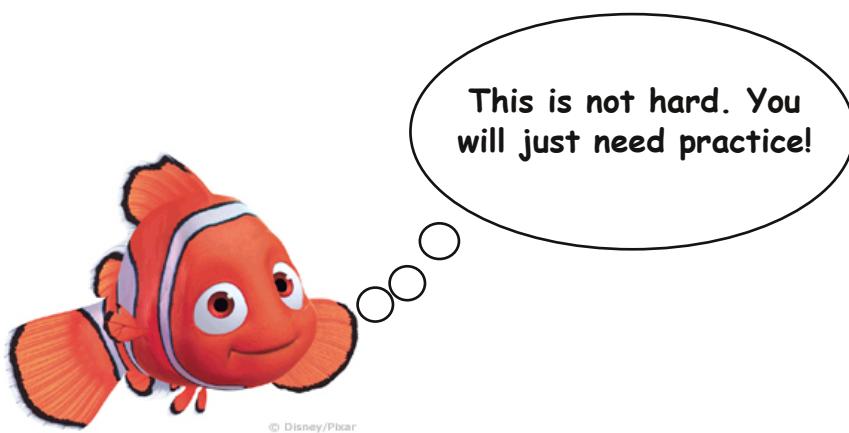


8) Try to breath with the regulator and inflate your BCD



*After diving, regulator should be removed from the valve groups in the following order:*

- 1) Close the tank valve (clockwise);
- 2) Press the emergency purge button on the second stage to let the pressure out of the system;
- 3) Check whether the pressure gauge dropped to zero (the system is empty) and release the BC inflator hose;
- 4) Unscrew the tightening screw and take the first stage of the valve group;
- 5) Remove any water droplets from the first degree, as well as a protective cap by blowing air from the tank in it (in an angle not directly into it);
- 6) Put the cap on the first stage;
- 7) Rinse in fresh water;
- 8) Drain water from shaking out of the second stage and leave the regulator to dry in shade.



## Putting on the scuba set and entering the water

If you are standing put the scuba set (cylinder along with the BCD and the regulator) on your back with the help of your buddy. It's easier and more practical to put on the scuba set in a sitting position, so you could adjust straps more easily and do not need anyone's help. Also, putting the diving set in standing position is not recommended to people with back problems. When assembling equipment and preparing to enter the water we need to keep an eye on the position of instruments like manometer and octopus so they do not get damaged or tangled.

*Since I have back problems, I will only demonstrate putting on the scuba tank in a sitting position*



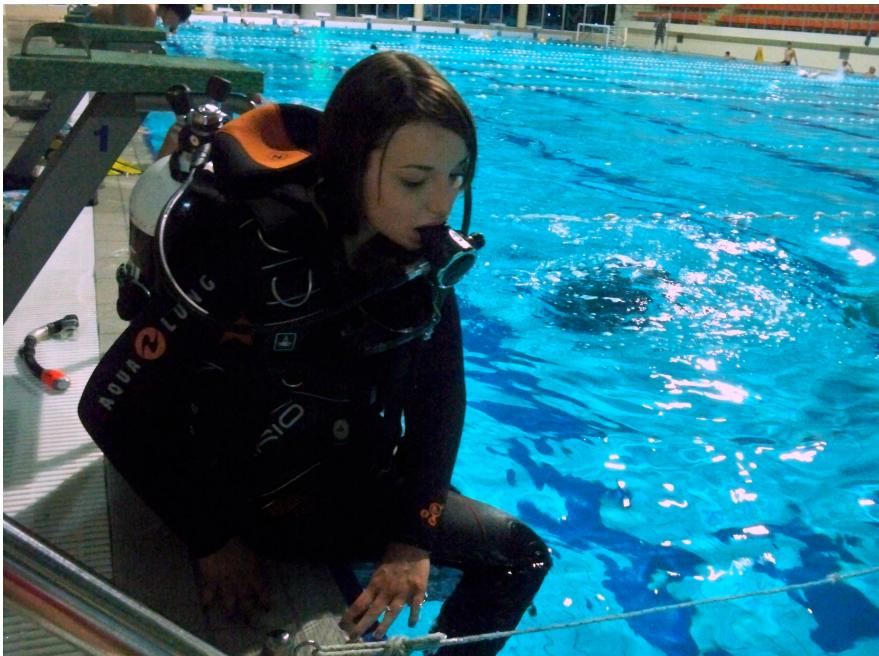
Put the scuba tank on your back



Buckle flaps across the waist  
and tighten straps.

The procedure for entering the water in the seated position is the following:  
1) Before entering the water we have to inflate the BCD, then put the regulator in your mouth and check its dosage. 2) Put both hands to the side of the pool on one side of the body. Then, rotate the body while holding to the edge of the pool. Slowly plunge into the water.

1)



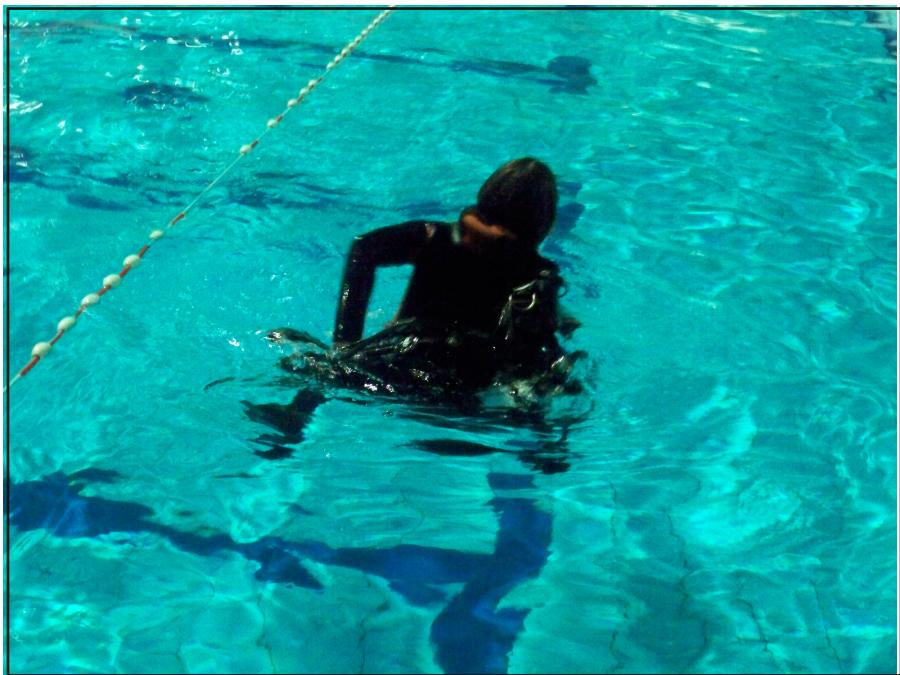
2)



## Putting on the scuba set in the water



1) The BCD is inflated. The whole scuba set is floating.



2) "Sit" on the scuba set, drown it, put the arms in the straps and let it slide to your back



3) Lie on your back and tighten all the straps

### Draining the regulator on the water surface

If you drop the regulator into the water it will fill with water. Put it back in your mouth and simply exhaust in it. Thus, you will drain the water from it. Another way of emptying is pushing the purge button while holding the regulator in the hand (do not put it in the mouth, but just below them).

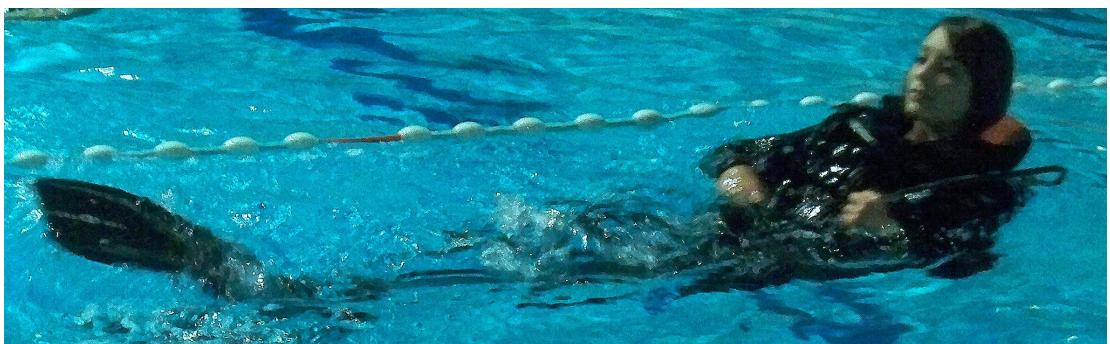


1<sup>st</sup> way



2<sup>nd</sup> way

## Swimming with the scuba tank on the surface



Lie on your back and work with your legs from the hips. This way you will not get too tired. This technique comes in handy when you have to swim to the diving destination or a boat.



## Correct position of divers on the bottom of the pool



Kneeling on the floor is the correct position of divers on the bottom of the pool



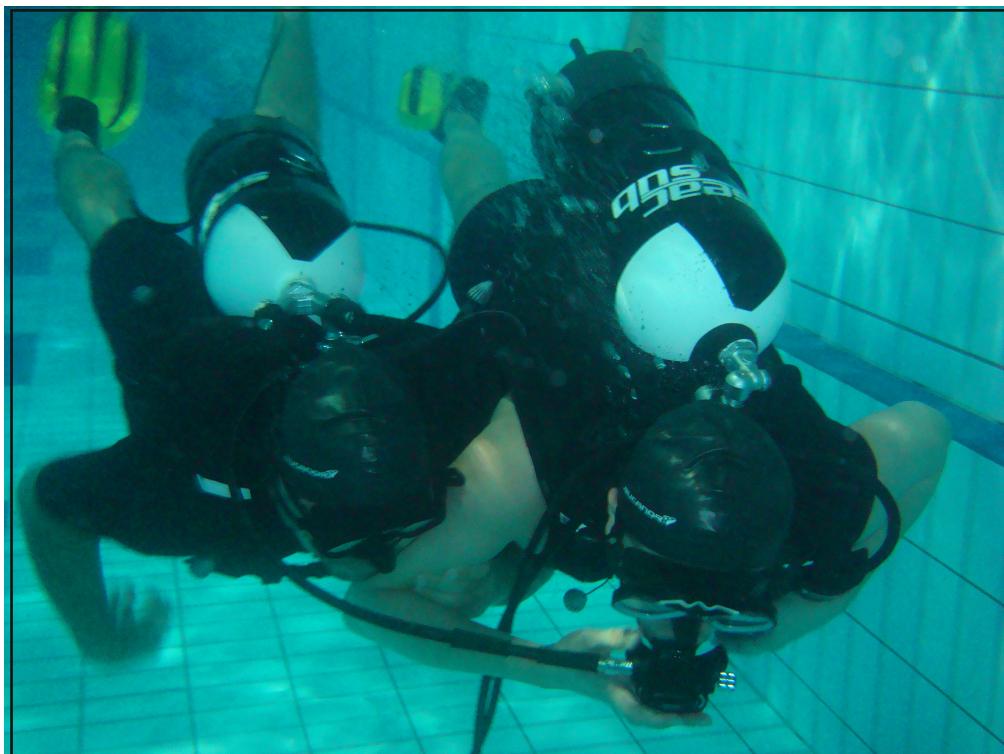
## Emptying the mask



Tilt your head back, do not bend the body, press the top of the mask frame with your fingertips, or move the bottom edge of the mask, and exhale through your nose until you empty the water from the mask. Breathe from the regulator and do not hold your breath. Make sure that you do not lift the bottom edge of the mask too much, because otherwise water will be getting into the mask. The air released by the nose forces water down water from the upper part of the mask while in the mask remains only the air.



## Buddy breathing



Buddy breathing is breathing with your dive buddy on only one regulator. Grab your buddy and pull him closely so you would not need much time to bring the regulator from his hand to yours. Signal your buddy with a sign showing a number of breaths you need to do in one breathing cycle. The best is 2 or 3 breaths. Then slowly swim and breathe. First one of you breathes 2 or three times, and then hands the regulator to his buddy. You do that until you surface. Do not breathe more than agreed because your buddy might pass out of hypoxia.



## Balancing

Balancing is actually achieving neutral buoyancy. That is necessary for good motor skills under the water and safety. If you constantly go up and down you might experience ear troubles, and on decompression stops you will not be able to keep a steady depth which is necessary for exhaling excessive nitrogen from the bloodstream.

### How do we balance?

We balance by inflating the BCD on descent and deflating it on ascent until achieving neutral buoyancy. With breathing in we will achieve slightly positive buoyancy. With breathing out we will achieve slightly negative buoyancy. You need to gain the feeling like you are floating, not going up or down, but just staying in one place. Put your body in a horizontal line and balance yourself with a BCD. Then, breath in and out to feel the change in balance due to volume of air in the lungs.



Practising Ballancing In The Pool

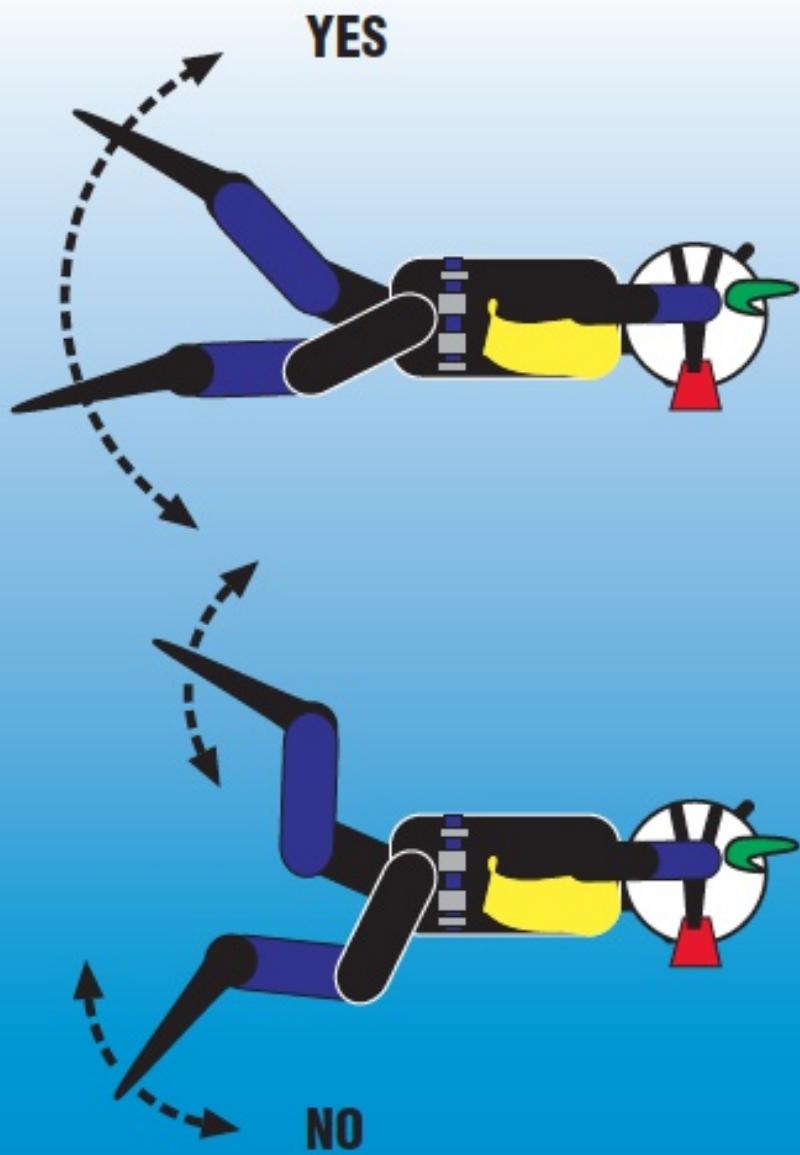
**Once you learn how to balance it looks like this**



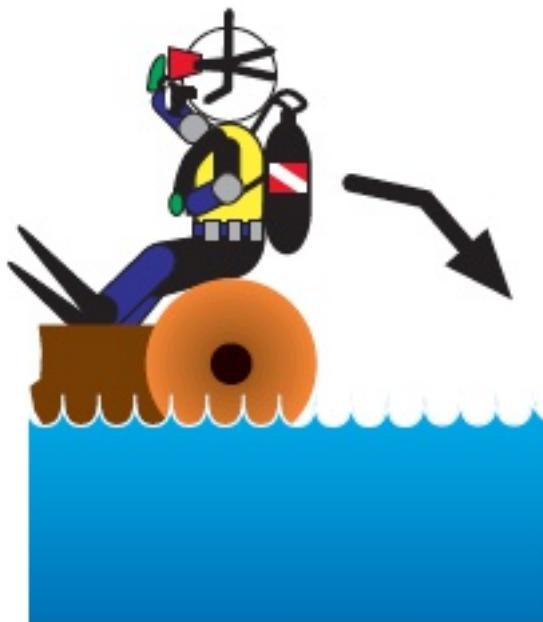
The diver is not waving hands, and she is in a constant horizontal position. Swimming is from the hip and there are just slight knee movements.

**Once you are well balanced you feel like you are weightless!**

When diving, the position of the body should be horizontal and your face should face the sea bed. Legs work from the hips, not knees!



## Methods of entering the water with all equipment from the boat



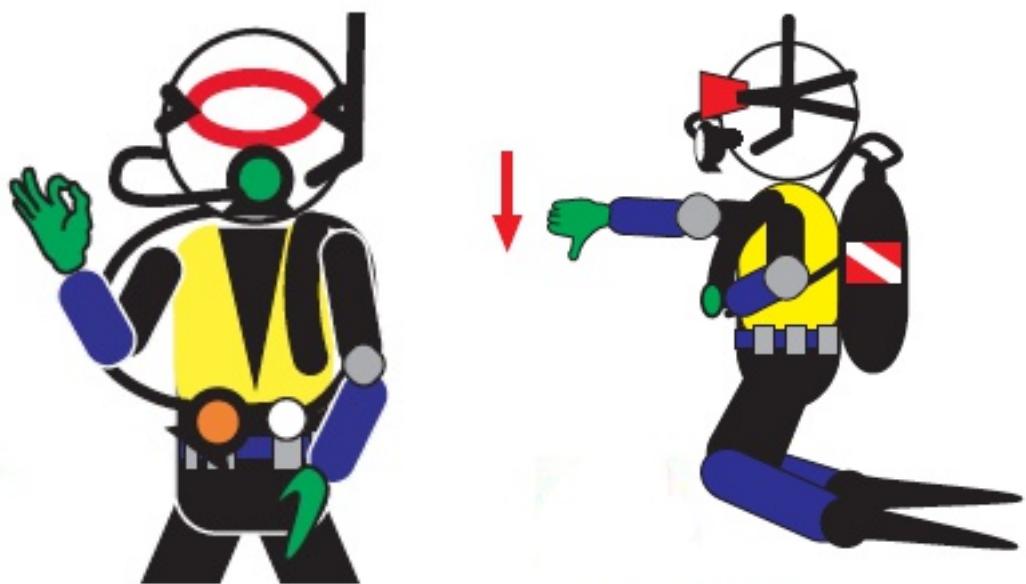
Sit on the edge of the boat with your BCD on. Put the regulator in your mouth. Hold the regulator and the mask with you hand and push yourself backwards into the water.



To enter water from a ledge, put on your BCD while standing. Put the regulator in your mouth. Hold the regulator and the mask with one hand and make a step in the water

## Sign language

Since in diving you can not talk a new way of communication was invented - sign language. It is very important to communicate in diving because otherwise accidents can happen. These are some of the communication symbols divers use:



OK - Did you understand ?

Down



Ok - I am OK - Are you OK ?



Go down - Down!



Up



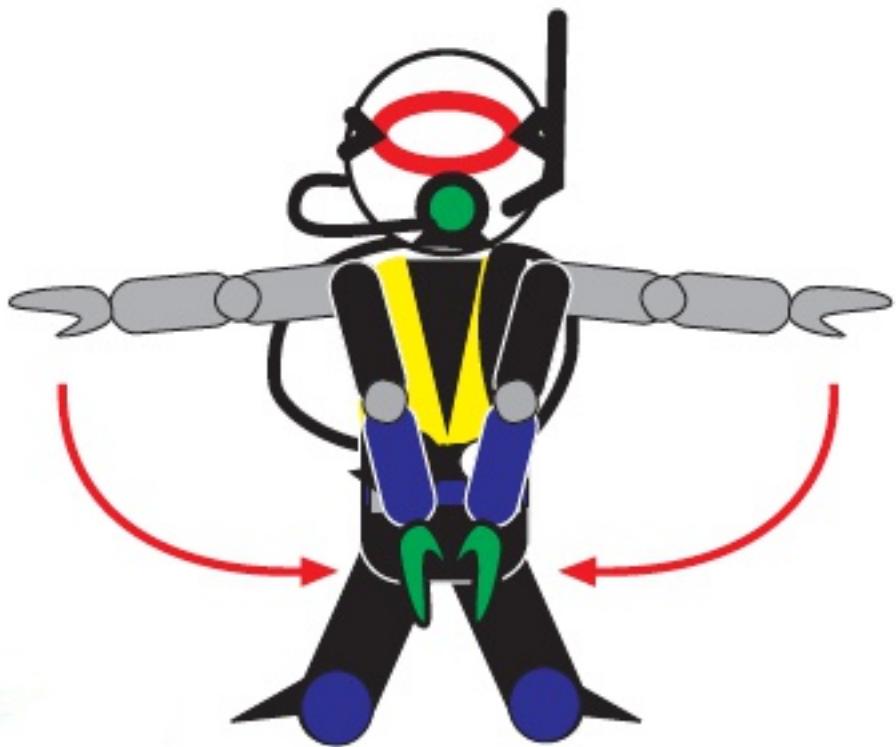
Out of air



Go up - Up!



Tie

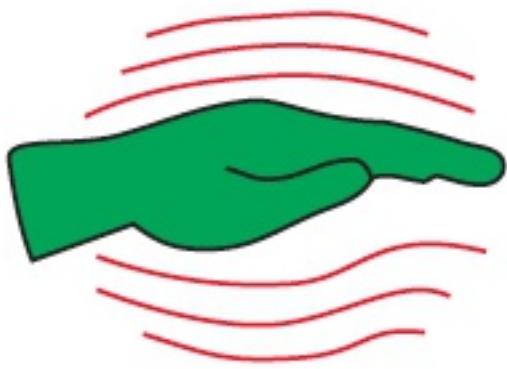


Everybody here



Wrong

Dizziness



Calm - Buoyancy



50 Atm



Inflate



You



Me



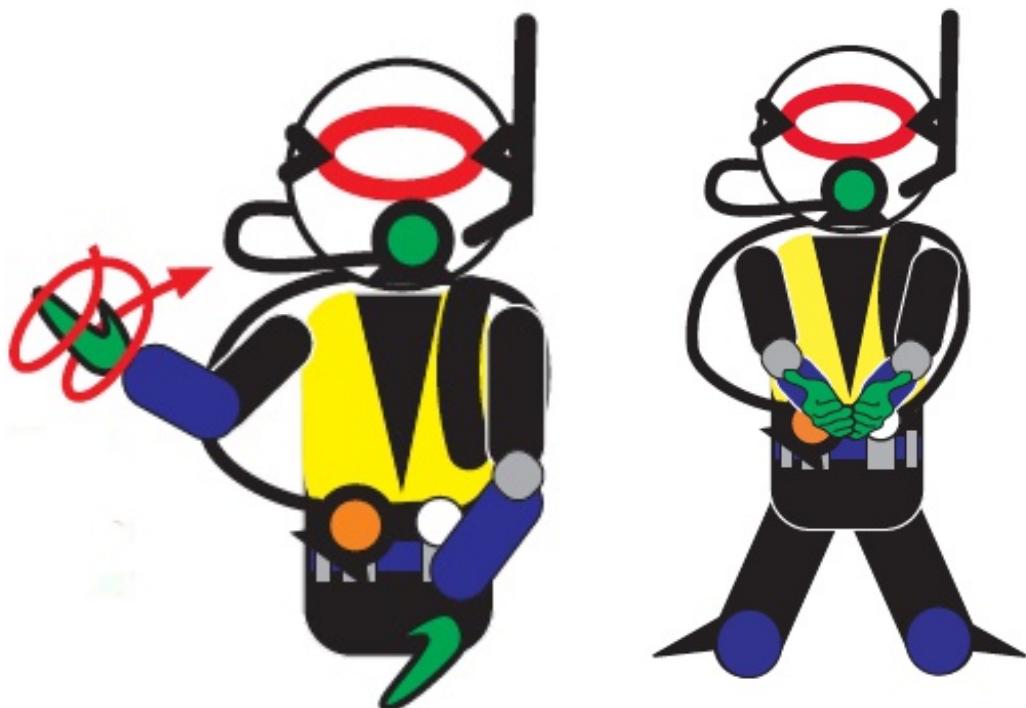
Direction



Slow down



No



Acceleration

Boat



Look (There..., Here...)



Half pressure



Shared respiration



Tank pressure



Cramps

**In order to master these exercises and skills  
you will need the help of your friends. Work  
together and learn! Once you learn this,  
help others!**



When I learned everything I have written about in this guide, and passed all the required tests by CMAS I became a licesend R1 diver.



My diploma



My diving certificate front side



My diving certificate back side