

The Belle essentials - starting Oxygen Therapy

Before you start Oxygen Therapy:

- You will need to sign the safety disclaimer. Nothing considered dangerous in an oxygen rich environment is allowed into the chamber.
- You can leave your valuables in a locker. Please ask for one to use if you have substantial clobber.

The “Belle” itself:

- A pressure chamber housing the oxygen delivery system, which seats up to 3 people with social distancing (5 under normal circumstances). It is entered via a narrow door which opens inwards to the chamber. This makes the inside pressure work towards sealing the chamber.
- There are a number of viewing portholes, to help the operator see what is happening inside and to allow occupants to see/communicate out.
- It is controlled externally by the trained & certified chamber operator.
- The chamber is pressurised to 1.5, 1.75 or 2.0 atmospheres, equivalent to 5, 7.5, and 10 metres depth underwater (16, 24, and 33 feet).

Once inside:

- After you take your seat, you should couple your masks to the 2 tubes either side of your chair
- Until you reach the bottom you should clear pressure in your ears, by pinching your nose and blowing down it, swallowing, or waggling your jaw (talking doesn't really count in this regard, but it's a good time to catch up with others). Whatever works for you! Never use sweets to help as we cannot get to you if you choke.
- The operator will advise you via the intercom that you've reached the prescribed pressure & also to put your mask on fully.

The mask:

- Has two couplings: one for oxygen, the other for exhaled air. There are a few different styles of mask, allowing you to get a best fit with your own face shape. All types have the same coupling. These will usually be fitted in advance by the operator.
- The strap is adjustable and is fitted with one part around the back of the neck and the other at the upper back of your head, your mask should be on tightly so as to create a good seal.
- Masks should be uncoupled after the dive just as you are about to leave the chamber one by one.
- You will have purchased your own mask which means you are in control of your own hygiene
- You can wash it between dives at home with hot soapy water (the straps are washable but you can take them off to wash the mask if you like)

Oxygen flow:

- Is via a one-way system. 100% oxygen in via the RHS pipe, and exhaled air out through the LHS pipe.
- There are membranes to prevent the flow going the wrong way. One is on the oxygen regulator, which lets oxygen in and shuts over to prevent exhaled air flowing that way, and the other is in the facemask itself, which stops exhaled air being re-inhaled, whilst allowing the exhaled air out.

- Think of it like doors: You are in a corridor between two (very light) doors which open in the same direction. When you inhale the oxygen door is pulled open towards you and the other is pulled shut towards you, and this reverses on breathing out.
- The result should be 100% oxygen in and only exhaled air out

Time:

- It takes 8-14 minutes to pressurise to get to the desired pressure. The deeper the Oxygen Therapy the longer it takes.
- A session then takes 45 minutes at the prescribed pressure breathing the good stuff!
- It then takes between 8-14 minutes to depressurise.
- Leaving 90 minutes for a dive is good and you should always arrive in plenty time before hand so you have the time to get prepared by visiting the toilet (you're in a chamber for at least an hour and can't leave!), getting a good book to read or whatever etc

Noises:

- There are a few different noises, most of them loud:
 - The roar of air as the chamber is pressurised
 - The roar the opposite way as the chamber is depressurised
 - The noise of breathing via the masks and the supply system
 - Occasionally there is a rushing noise during the session. This is when there's a need to vent excess oxygen or 'flush'. This is usually due to there being some leakage from a mask. The operator aims to have an oxygen level of no more than 25% in the area of the chamber (VS 20% in normal air). A warning system is in place to help the operator with this, but you won't hear that
 - There may be a clanging noise at the door. This is caused by the door lock being disengaged. It's engaged at the start of the dive, to keep the chamber sealed, and releases once the pressure rise hold the door firmly closed

Breathing:

- This is purely a matter of choice, as regards the way you breathe. It's not optional as an activity:
 - Some people breathe normally, as they would outside the chamber
 - Some inhale and exhale deeply using their full lung capacity in a Yoga type style
- **Just be aware that it can be surprisingly tiring actively breathing for an hour.**

Activities:

- This is also a matter of choice:
 - Most read books or magazines
 - One major activity, for some/most people, is checking the time left before depressurisation – there is a clock viewable on the porthole opposite the door
 - The one thing you can't do is hold a conversation whilst you have your mask on, but that doesn't stop us trying!
 - Sleeping is not a good idea as you won't reap the benefits of the oxygen if you don't actively breathe

Comfort:

- It can be uncomfortable to spend over an hour in the same seated position, so some gentle stretching and/or other seated exercise may help
- There are two fans in the chamber either side of the door. These can only be switched on from outside. You can have one or both on. They have a slide switch which selects the swing or static modes. It can get hot just after reaching the bottom, particularly if there are 3 bodies generating heat
- If you're only a bit hot you can press your back or hands onto the metal of the chamber. It's a convenient heat sink, and always feels cold
- It can also get cold in winter, although the operators try their best to warm it up with a fan heater between dives. You may want to bring your own blanket!

Safety:

- There is an intercom which is always on and listened to by the chamber operator. If you have any difficulties (ears getting sore, too hot, or anything else), just let him/her know and action will be taken to help you.
- There is a yellow manual decompression valve inside the chamber above position 1 which you could use to decompress the chamber in an emergency
- There is an alarm button (doorbell) on the inside of the door which you can ring to get attention
- If there are others in the chamber, they will be looking out for you, as you should do for them.
- There is a warning system monitoring the oxygen content of the non-mask environment, and a procedure to flush the chamber of excess oxygen.
- There are the viewing portholes to aid communication.
- If we need to we can decompress the chamber very fast.
- Pressurising the chamber can be very noisy and communication may not be easy. These basic hand signals shall be used by all members and operators:
 - Thumbs up to your operator means everything is fine
 - Thumbs down means there is a problem
 - Cutthroat signal means: STOP - you want to be brought back up and abort the dive
- There is a sprinkler system, which will come on in the unlikely event of any of us needing a good wash, or the even more unlikely event of fire!

NOTE: The chamber has been on the go for over 35 years, incident free.

After all that, you get let out and can get on with the rest of your life, until the next time...