

Diver Training Guidance

These notes are intended to provide a framework for a return to diving following easing of government restrictions as a result of the COVID-19 pandemic. This guidance is based on current knowledge and understanding of the risks associated with the outbreak and the current scientific evidence informing decisions by government and other relevant authorities. It is acknowledged that the evidence base and knowledge surrounding the outbreak is rapidly and continually evolving and so the guidance will be reviewed regularly and be subject to update and amendment as appropriate.

STATUS

Currently in the UK different criteria applies within each of the devolved administrations. Please refer to the [STATUS document](#).

Protecting others and reducing the demands on the NHS

Current advice on avoiding transmission of the virus can be found on the Government Website. <https://www.gov.uk/government/collections/coronavirus-covid-19-list-of-guidance>

The advice for anyone in any setting is to follow these main guidelines:

- The most common symptoms of coronavirus (COVID-19) are recent onset of a new continuous cough and/or high temperature. If you have these symptoms, however mild, stay at home and do not leave your house for 7 days from when your symptoms started (if you live alone), or 14 days (if you live with someone who has symptoms). You do not need to call NHS 111 to go into self-isolation. If your symptoms worsen during home isolation or are no better after 7 days, contact [NHS 111 online](#). If you have no internet access, you should call NHS 111. For a medical emergency dial 999.
- Wash your hands more often than usual, for 20 seconds using soap and hot water, particularly after coughing, sneezing and blowing your nose, or after being in public areas where other people are doing so. Use hand sanitiser if that's all you have access to.
- To reduce the spread of germs when you cough or sneeze, cover your mouth and nose with a tissue, or your sleeve (not your hands) if you don't have a tissue, and throw the tissue in a bin immediately. Then wash your hands or use a hand sanitising gel.
- Clean and disinfect regularly touched objects and surfaces using your regular cleaning products to reduce the risk of passing the infection on to other people.

Anyone displaying any symptoms should NOT engage in any activity outside the home.

Efficacy of rescue techniques

The Annual Diving Incident report 2018 analysed the effectiveness of various rescue techniques taught within diver training and whose use was reported within diving incidents. The report demonstrates the important value of such training and the rescue skills applied by appropriately trained divers.

The full report can be downloaded from www.bsac.com/incidentreport and an extract from the report is below.

“Efficacy of rescue and resuscitation techniques

In this report we present evidence of the likelihood of success when using various rescue and resuscitation techniques. The BSAC incident reports for the last six years were

interrogated for data with respect to the likelihood of success when using rescue and resuscitation techniques taught to divers. In particular we were interested in the outcome of using the alternate source (AS) technique in an out of air or free flow scenario, the controlled buoyant lift (CBL) technique to recover divers to the surface, the outcome of using CPR and oxygen-enriched CPR and the outcome of using AED defibrillators.

Table 1. The efficacy of rescue techniques used in reported incidents

Technique	Reported use	Successful outcome ³	Success rate
Alternative Air source Used ¹	133	114	86%
Controlled Buoyant Lift¹	82	64	78%
CPR ¹	84	13	15%
Oxygen-enriched CPR ¹	23	5	23%
AED defib use ²	20	6	30%

¹analysis from data from 2013-2018 inclusive

²data extracted from the entire database

³successful outcome defined, for AS, as the casualty reaching surface without having to use free ascent; for CBL as the casualty reaching surface and for resuscitation techniques as the casualty regaining consciousness

In the case of alternate source technique, we analysed if the technique resulted in the return of the diver to the surface without resorting to a free ascent, the technique included all cases where a diver resorted to using their own AS or an AS provided by a buddy. The CBL technique was defined as a diver using either the casualty's buoyancy or their own buoyancy to make a controlled ascent resulting in the casualty reaching the surface. CPR, oxygen-enriched CPR and AED were defined as when the technique was used in the rescue or attempted rescue of an unresponsive casualty. Success of all of these three resuscitation techniques was defined as the recovery of the casualty to conscious and breathing.

In Table 1, evidence is presented that, where a controlled buoyant lift was used, the technique was successful at recovering the casualty to the surface in 78% of the cases and in cases where an alternate source of gas was used the technique was successful in 86% of incident reports. It is reassuring that, even when under the stress of an occurring incident the techniques taught by diving agencies to assist their buddy to the surface are successful in the majority of cases. The suspicion is that these success rates are a large underestimation of the actual success rate.

The instances, where resuscitation techniques are called upon, are significantly more

serious because the casualty is by definition unresponsive and not breathing. Even in these very difficult circumstances, the evidence is that divers have successfully resuscitated casualties. The success rate is 15% for CPR and 23% for oxygen-enriched CPR; and when an AED is used the success rate is increased to 30%.”

Due to the impact of the vaccination programme and continuing measures to try and control the risks associated with Covid-19 restrictions have eased. Divers do still need to consider their own personal risk and take appropriate steps to ensure their own safety and that of others they are associated with.

Diver Training

During diver training some skills require close personal contact. Out of water such close personal contact may not be possible within social distancing recommendations. In water the contact is less of an issue but the sharing of breathing equipment increases the risks of transmission of the virus.

Dry runs and equipment checks

In order to minimise risks associated with close proximity during dry runs of techniques the following advice could be considered:

- On land dry runs without full scuba– for compass, distance line etc. either maintain an appropriate distance or ensure all participants are wearing suitable PPE (see separate guidance)
- For equipment practice – use full equipment and conduct the dry run in shallow, standing depth, water in order to ease weight of equipment. Participants should wear their diving mask and breathe from their regulator. Instructor should use ‘You watch me’ and other teaching signals rather than talking.
- Surface skills teaching - Participants should wear their diving mask and breathe from their regulator. Instructor should use ‘You watch me’ and other teaching signals rather than talking.

Alternate Source (AS)

An out of gas (OOG) situation underwater is a life threatening concern. All divers are trained to deal with such situations both for themselves and to assist a buddy. BSAC preferred method of teaching is for an OOG diver to take the dedicated AS (or be presented it by their buddy) and the buddy to retain their own primary regulator. Consequently Alternate Source (AS) techniques do not require the sharing of a single regulator.

Divers should plan to be as self-sufficient as possible to deal with such situations in line with their training. A diver carrying their own fully redundant gas supply and trained and practiced in its use is a sensible precaution.

Self-sufficiency does not remove the need to be able to provide a gas supply to an OOG buddy and consistent with ‘Safe Diving’ every diver should have an AS available, capable of being provided to a buddy. Such an AS should be dedicated to use by a buddy and not breathed from by the diver themselves.

The established training for AS is for an Instructor to demonstrate the taking of an AS from a student and switching to it, repeating with a second student and then allowing the students to practice the skill with each other’s AS. In order to avoid any risk transmission of the virus only one person should use any regulator.

On a dry run:

- In standing depth water as detailed above
- Instructor can demonstrate location, removal and presentation of AS but NOT exchange and breathe from the student’s AS.
- Regulator switch can be demonstrated if necessary by instructor showing use of purge

rather than switching regulators

In water:

- Instructor demonstrates location, removal and presentation of AS but NOT exchange and breathe from the students AS.
- Regulator switch can be demonstrated if necessary by instructor showing use of purge rather than switching regulators
- Horizontal swim and ascent positioning can be demonstrated by Instructor following previous steps and maintaining grip but continuing to breathe from own regulator, whilst holding student AS
- Students practice whilst breathing from each other's AS

Intervention:

Instructors own AS should not have been breathed from during the training session and so can still be donated during any need for intervention.

Rescue Breaths

In the event of a serious incident whilst diving/snorkelling the ability to provide initial in-water rescue breaths can be a significant contributor to a successful rescue. The training for this skill remains an essential training requirement for qualifications beyond entry level.

During the ongoing government imposed restrictions aimed at controlling the spread of the virus and minimising the risk to individuals, the conduct of training for in-water Rescue Breaths presents a low probability but potentially high impact risk of transmission. Consequently, it is currently considered unacceptable to carry out this training and assessment unless safety measures as indicated below can be put in place.

It is hoped that as the virus is brought under control and effective safety measures, such as a vaccine, become available that a return to full training activity can be achieved safely. In the meantime students can complete their training using the options detailed below.

The following guidance provides appropriate alternatives providing all involved (instructors, students and assistants) are fully informed and aware of the risks of the virus and agree to take part.

Alternative methods

Initial rescue breath training should have been completed on land using a CPR manikin in order to introduce and refine the techniques in a controlled and consistent manner. The more practice with such manikins that can be gained the more effective any training for in-water rescue breaths will be.

Options are:

- Use of simulated techniques
- Use of dedicated in-water rescue manikins
- Use of simulated casualty from the same household

Instructors can access the full details for each option at <https://www.bsac.com/document/diver-training-guidance/>

CPR

Situations where CPR is required in a diving environment in the UK are rare but do occur averaging no more than 20 per year. BSAC Incident report analysis in 2018 demonstrated the efficacy of rescue efforts including in-water rescue breaths, CPR, Oxygen enriched RB and AED use. www.bsac.com/incidentreport

Any member of a dive party trained in the delivery of CPR should consider their own Risk Assessment should they be called upon to assist another diver requiring CPR including:

- Personal attitude to risk of infection vs saving a life?
- Available PPE
- Equipment, and personnel with skills, to provide ventilations by Bag Valve Mask (BVM)
- Assessment of likelihood to require RB inclusive CPR
- Assessment of response times for emergency services
- Availability of AED (what happens if voice prompts indicate give RB?)

CPR training on land must only be conducted with a manikin. Following Resuscitation Council UK advice normal hygiene procedures should be maintained for manikins used for RB and CPR practice. All surfaces subject to direct personal contact (chest, forehead and face) should be thoroughly cleaned using disinfectant/alcohol wipes and allowed to dry naturally between each user.

Replace and dispose of manikin lungs and airways after each training session. Clean manikin heads with an appropriate surfactant/disinfectant solution after completion of each training session and allowed to dry naturally.

Casualty Assessment

The conduct of a casualty assessment is integral to the DTP at Dive Leader and above as well as forming part of Oxygen Administration and PRM training. Conduct normally involves using one student as a simulated casualty as a means of working through the assessment.

During the easing of restrictions it is possible to return to the use of a person as a simulated casualty providing all participants are comfortable with doing so and appropriate precautions are taken such as wearing masks and gloves.

Theory training

As restrictions are progressively lifted it may be appropriate to return to face to face teaching of theory, especially for those teaching sessions that require more class interaction and/or planning sessions. Teaching environments should be selected to ensure adequate social distancing measures and ventilation of the space are able to be maintained for the safety of all participants.

Sheltered water training

Initial water based skills are gained in sheltered water. In the UK this normally entails the use of a swimming pool. The water environment represented by a well maintained swimming pool provides a degree of safety due the chemical treatment of the water, which will act to inactivate the virus. However, the challenges presented by maintaining social distancing, disinfecting and cleaning of the other infrastructure of swimming facilities may mean some delays in accessing such facilities. Training can be conducted in other locations providing they meet the definition of 'Sheltered Water' defined in the Instructor Manual:

"Sheltered water – This is a well-maintained swimming pool or sheltered open water which provides similar conditions, being generally less than 4m deep, with a stepped or gently shelving open bottom of firm composition, adequate visibility (minimum 5m), and free from significant water movement from either waves or currents.

Within sheltered waters, there will need to be

- Standing-depth water in between waist and chest deep allowing students to either stand comfortably, or to kneel and be fully submerged.
- Deeper water of approximately 2-4m deep."

In addition, it is essential that students will have access to appropriate protective clothing for the environment.

Dry Practical training

Many Skill Development Courses (SDCs) teach ancillary skills that are complementary to diving eg:

- Club Diving – Compressor Operation, Gas Blending
- Rescue Skills – O2 Admin, PRM, AED, First Aid for Divers
- Seamanship – Boathandling, Diver Coxswain, Chartwork & Position Fixing
- Special Interest –

Training for these should take appropriate account of the needs to maintain social distancing and hygiene standards at an appropriate point in relaxation of restrictions.

Some example considerations:

Handling controls

(eg. Compressor, blending equipment, O2 equipment, Boat engine controls, electronic navigation equipment)

All controls handled by instructor and students should be disinfected between all users. After using equipment users should wash hands thoroughly using either soap and water or an alcohol based hand sanitiser.

Close proximity

(eg. Instructor positioned next to controls (compressor/boat) to ensure control and safety or for demonstrations (eg. Bandaging in FAD, Chartwork)

Appropriate PPE masks should be used (see separate PPE guidance)

CPR and First Aid training

See guidance above for Diver training

To be used in conjunction with other guidance including:

- Medical guidance
- Status
- Equipment guidance
- Shore diving
- CPR and rescue procedures
- Diver Training
- Travel Guidance
- Charter boat diving
- RIB diving
- Swimming pool usage
- Etc.