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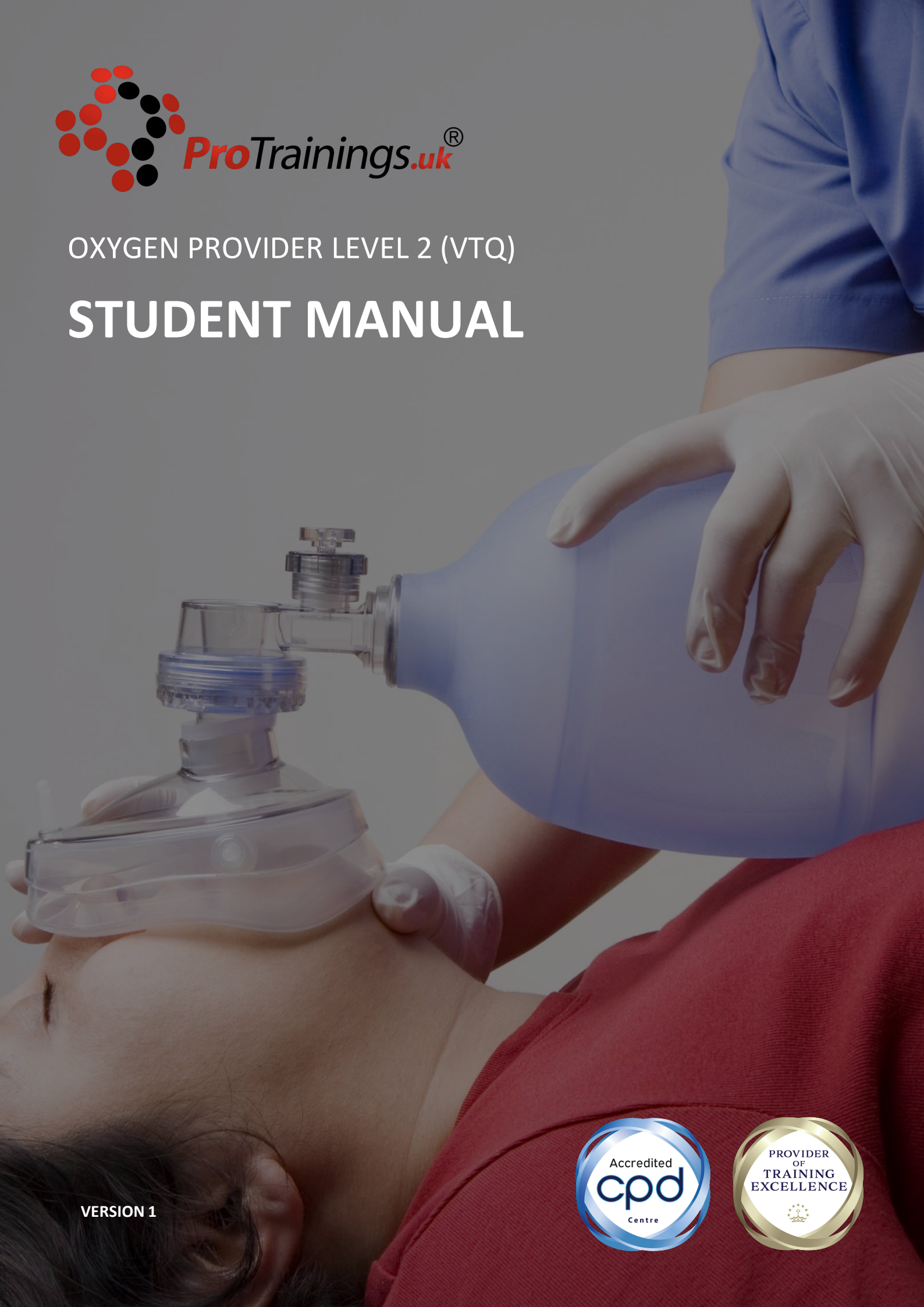
OXYGEN PROVIDER LEVEL 2 (VTQ)

STUDENT MANUAL



VERSION 1

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The Oxygen Provider course is designed to cover how to deliver oxygen in first aid emergencies. Oxygen within first aid by trained rescuers can provide an effective way of saving a life or just promoting recovery. In this course, you will learn the essential basics of how to assemble, use and disassemble an oxygen kit. Oxygen is a simple skill but there are safety concerns each user should be aware of.

This manual will also cover the importance of using bag valve masks (BVM) to deliver breaths without direct mouth contact as well as being able to deliver the breaths using 100% oxygen. This also includes the use of pulse oximetry.

This course is ideal to train to use Oxygen equipment if you work in the wind turbine and offshore wind turbine industries.

All our first aid courses fully meet the latest UK and European Resuscitation Council Guidelines 2021 and are designed to meet workplace HSE requirements.

If you need to buy Oxygen, please contact ProTrainings as we can supply different sizes of cylinders including 1, 2, 2.7, 8 and 10 litre versions. You can rent these on an annual basis and get fast refills. In our store, there are different bags to carry your cylinder and equipment and we also sell a full range of Oxygen administration equipment. We also offer Nitronox in 1, 2 and 10-litre sizes.

The content of this and all our courses has been independently certified as conforming to universally accepted Continuous Professional Development (CPD) guidelines and come with a Certified CPD Statement as well as a ProTrainings Certificate and for online courses an Evidence-Based Learning statement

For more information on first aid and medical issues register free at www.firstaidshow.com for the latest news and details of how you can view on iTunes, Roku, YouTube and many other formats. If you have any problems with log in or certificates, email or call us directly at support@protrainings.uk or 01206 805359.

Below are examples of the ProTrainings classroom certificate you will receive in the post after your course. Online course certificates are available online to print along with Certified CPD Statements.

Online SAMPLE Certificate


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ProTrainings, An Industry Body for First Aid Training, hereby certifies that

YVONNE A. SAVEALIFE

has successfully completed Oxygen Provider Level 2 (VTQ) Course Training

This certification includes the following objectives and is in accordance with the ProTrainings Oxygen Provider Level 2 (VTQ) Curriculum and ERC/UK Resuscitation Council 2021 recommendations

- BLS review
- CPR review
- ABCDE approach
- Benefits of Oxygen
- Safety considerations
- Oxygen treatment
- Contra indications of Oxygen
- Transport and storage
- Use of suction
- Pulse oximetry
- Oxygen kits
- Regulators and masks
- Manually Triggered Valve
- Bag Valve Mask
- Non Rebreather Mask
- Pocket mask
- Nasal canula
- Oxygen equipment
- Hypoxia

Date Issued: 26 Oct 2021 **Renewal Date:** 25 Oct 2024

Certificate Number: 0000MYCERT0000

Instructor: KEITH SLEIGHTHOLM K.Sleighth

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The person named below has successfully completed

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In compliance with Health & Safety (First Aid) Regulations (1981) Delivered in Accordance with Currently Accepted First Aid Practice

Course Completed On: 11 Jun 2021

Certificate valid for 3 years and annual refresher training is recommended by the HSE on:

1st Update: June 2022 2nd Update: June 2023

Retake this course before: 10 June 2024

Certificate No. 00EXAMPLE00

Signed K Sleighth

Instructor: Keith Sleightholm

Instructor No. 82011

ProTrainings Europe Ltd

ProTrainings Approved Centre 1000

Training Contact No. 0120-680-5359

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SAMPLE STUDENT

Has successfully completed

"Qualification Title"

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"Qualification Title"

Oxygen Overview

The first section of this manual will cover the introduction to the ABCDE approach and ABCDE approach to patient care.

The basic life support category includes Initial assessment and the recovery position, CPR for both adults, infants and children, compressions only CPR and improving compressions and breaths.

This manual will also cover hypoxia, hazards of using oxygen when oxygen is used and contra-indications of oxygen.

Oxygen equipment, the storage of oxygen, the transport of cylinders and portable suctions units will be covered.

This manual will also review adult bag valve masks, non-rebreather masks and pocket masks.

Introduction to the ABCDE Approach

When caring for a patient you use the standard ABCDE approach.

The ABCDE approach is the same as other critical care for patients. ABCDE still stands for:

Airway
Breathing
Circulation
Disability
Exposure to assess and treat the patient.

It is important to conduct a full assessment and re-assess regularly. You should treat life-threatening problems before moving to the next part of the assessment and assess the effects of the treatment you are giving.

It is very important to call for help early. This could be a course of action such as calling for an ambulance or a resuscitation team. Use bystanders to assist you and to control the scene. When professional help arrives, communicate, and use them effectively to ensure that monitoring and treatment occur simultaneously.

The initial treatments aim to keep the patient alive and achieve some clinical improvement. This will buy time for further treatment and expert help. It can take a few minutes for treatments to work so keep calm and observant.

The ABCDE approach can be used irrespective of your training and experience in clinical assessment or treatment. The detail of your assessment and what treatments you give will depend on your clinical knowledge and skills. If you recognise a problem or are unsure of what to do, call for help.

With all emergency care, ensure personal safety. First, look at the patient to see if the patient 'looks unwell'. If the patient is awake ask, "How are you?" If they appear unconscious, tap them and ask, "Are you alright?" If they respond normally, you know the airway is open. If they speak only in short sentences, they may have breathing problems. Failure of the patient to respond is a marker of critical illness.

Monitor the vital signs early. Attach a pulse oximeter, ECG monitor, and non-invasive blood pressure monitor to all critically ill patients as soon as possible. Only if trained to do so, insert an intravenous cannula as soon as possible.

ABCDE Approach to Patient Care

Now that this manual has covered the basics of patient care and introduced the ABCD approach, the next section will look at these in more detail by adding E to the end, meaning it now becomes the ABCDE approach.

The **A** stands for Airway. Any airway obstruction is an emergency so you must get expert help immediately.

In most cases where airway obstruction occurs, the cause is the tongue falling to the back of the throat, and by checking the patient's airway. If you see it is blocked do your best to try and keep it clear. One way of checking the airway is to do the Head Tilt – Chin Lift movement as this removes the tongue from the back of the throat. However, should you suspect the casualty's spine to be damaged, you should not do this manoeuvre. Instead, you should perform the 'Jaw Thrust'. Once the airway is open, the casualty will then be able to breathe.

The **B** stands for breathing.

During the primary assessment of breathing, it is vital to diagnose and treat immediately life-threatening conditions like a patient who is not breathing. To check for breathing, you must open the airway, place an ear next to their mouth so you are looking down their body. Then look, listen, and feel for any signs of breathing. Be sure not to confuse regular breathing for agonal breathing. If the casualty is not breathing, you should commence CPR immediately (after contacting the EMS).

If bronchospasms are identified (causes a wheeze), which is common in anaphylaxis. All critically ill patients should be given oxygen.

The **C** stands for Circulation.

Checking for proper blood circulation can be done by capillary refill on an uninjured toe or finger, as well as feeling for a radial pulse. You can also feel for a Carotid pulse in the neck; however, this tells us less about the casualty's blood pressure than feeling for a radial pulse. Femoral pulses are not usually taken in a pre-hospital setting. It is also worth noting that the blood pressure in patients suffering anaphylactic shock will be quite low.

The **D** stands for Disability.

This doesn't mean pre-existing conditions but is more related to anything that hasn't been covered already that isn't normal. If the patient is conscious and can speak, you can ask them if they have any strange sensations in their body, any pain or anything that feels unusual. This can be very beneficial as you may have missed something in your primary assessment. There may also be things internally that are wrong such as chest pain or nausea; things that you may not be able to see without the casualty telling you.

The **E** stands for Exposure. To examine the patient properly, full exposure of the body is necessary. Skin and other changes may be difficult to see. Minimise heat loss where possible and always respect the patient's dignity. Take a full clinical history from the patient, relatives or friends, and other staff and if you can, review the patient's notes and charts to get a better picture of the situation you are dealing with.

With the ABCDE approach, it is important to always get help and ensure you stay within your training. Do not attempt any procedure unless you are qualified and allowed to do so.

A B C D E

Barriers – Gloves and Face Shields

The fear of infection may deter some people from providing emergency first aid. Effective use of barriers, including gloves and face shields, protect both you and the patient from the risk of infection. There are special rules in some workplaces for the correct disposal of gloves and other infected materials, so it is best to check your local guidelines. There are many types of face masks, such as pocket masks or key fob masks. They come in different packages but are all the same. The BSi HSE first aid kits in the workplace now contain a face mask

Putting Gloves On

Always use disposable gloves when providing first aid care. If you have a latex allergy, use a latex alternative such as nitrile or vinyl. Before providing care, make sure the gloves are not ripped or damaged. You may need to remove rings or other jewellery that may rip the gloves.

Remember to use skin-to-skin and glove-to-glove. Pinch the outside wrist of the other gloved hand. Pull the glove off, turning the glove inside-out as you remove it. Hold it in the gloved hand. Use the bare hand to reach inside the other glove at the wrist to turn it inside-out, trapping the other glove inside. Dispose of gloves properly. If you have done this correctly, the outside of either glove will never touch your exposed skin.

Recovery Position

Check that there are no injuries that could be made worse by moving the patient and placing them carefully on their side using the recovery position. Monitor their vital signs and keep them warm and comfortable until the EMS arrive.

If you suspect spinal injury and the patient is in no immediate danger, do not move them. If you have to move them onto their side, as you have to leave them to get help or they start to vomit, then use the recovery position.

First aid is to prevent the patient from getting worse and this can be done with some simple easy skills that can be learnt on most first aid courses.

P - Preserve Life
P - Prevent Deterioration - stop the situation from getting worse
P - Promote Recovery

Age Definitions

An infant is under the age of 1 year.

A child is between 1 year and 18 years of age.

The differences between adult and paediatric resuscitation are largely based on differing aetiology. if the rescuer believes the victim to be a child, then they should use the paediatric guidelines. If a misjudgement is made, and the victim turns out to be a young adult, little harm will accrue as studies of aetiology have shown that the paediatric causes of arrest continue into early adulthood.

It is necessary to differentiate between infants (under 1 year of age) and children, as there are some important differences between these two groups.

Older Child and Adult CPR

Adult CPR is performed once you have checked for patient responsiveness and checked for breathing for up to 10 seconds. If the patient is not breathing, activate EMS, perform 30 compressions at a rate of 100 to 120 compressions per minute at a depth of 5-6cm in the centre of the chest. Compressions should be the same speed on the push and the release and in a regular interval. Full recoil of the chest is vital to allow the heart to fill with blood.

These 30 compressions should be followed by two rescue breaths. Before carrying out the rescue breaths, make sure the airway is open by tilting the head back, lifting the chin and squeezing the soft part of the nose. Then seal your mouth over the patient's and blow gently for about one second, you will see the chest rise. Breaths can be delivered as mouth to the nose by sealing the mouth or mouth to tracheostomy if they have a Stoma in their neck.

Repeat the cycle until an AED or EMS arrives. Do not waste time between the compressions and the breaths. There should be only a 5-10 second break-in giving the compressions with a maximum of 10 seconds to avoid delays in compressions. It is vital to keep the oxygen-rich blood pumping around the body, which is why compressions are so important.

CPR Handover to a Second Rescuer

Providing CPR can be exhausting, and it may become less effective as you grow more tired. Where possible, it is best to share the work with another rescuer. It is not important if the other person is CPR trained as you can tell them what to do. The rescuer tells the other person what to do while he is doing the chest compressions and then while he does the breaths the second rescuer gets ready. On completion of the breaths, the second rescuer takes over. It is a good idea to try to swap over every two minutes. If you become tired and no one is there, consider just doing chest compressions to have a rest from the breaths.

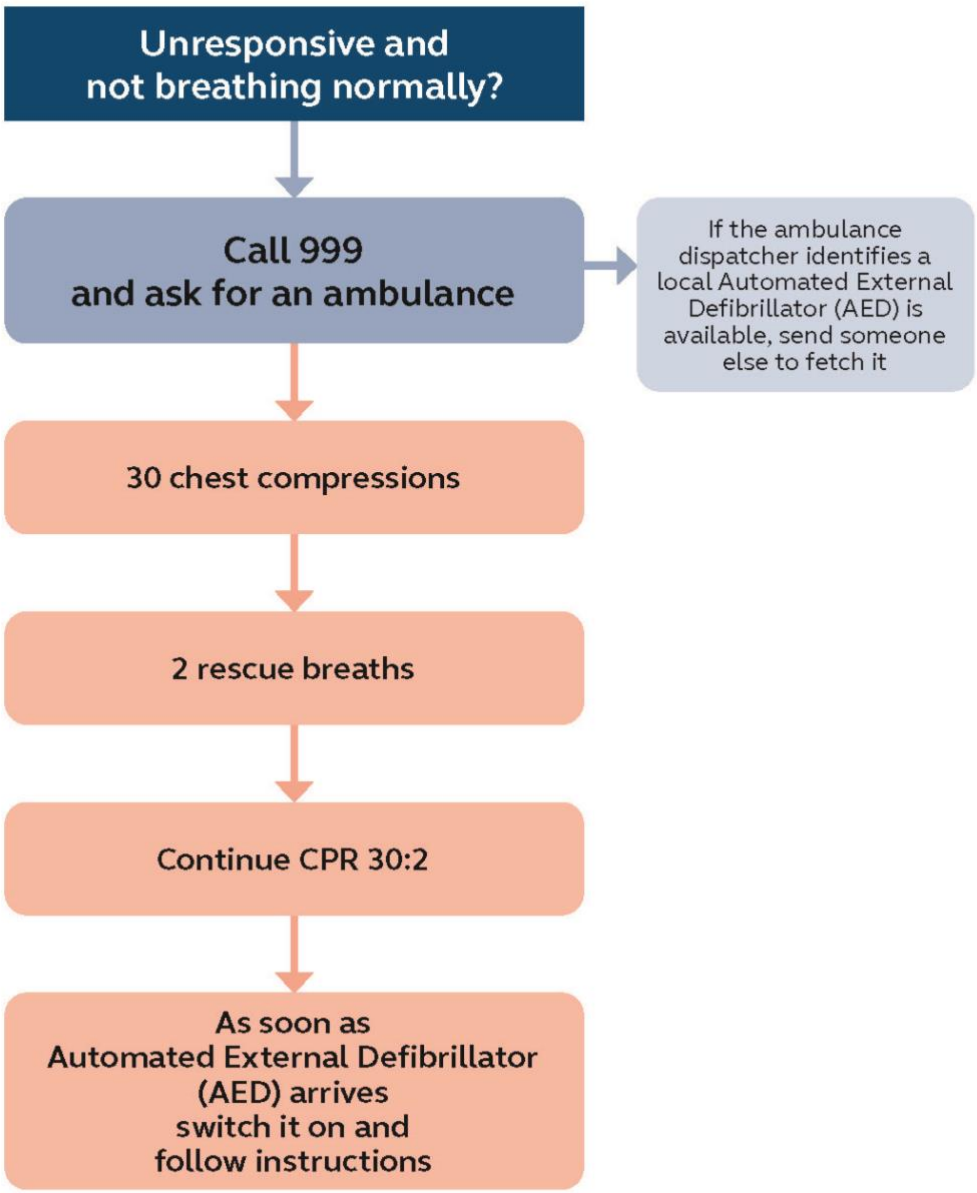
Hands-only CPR

Hands-only CPR helps encourage lay rescuers to get involved who may not otherwise help. Many people are reluctant to give breaths, and this is one reason why people do not perform CPR. With this new technique, blood is circulated around the body, oxygenating the body's tissues and organs.

The rescuer delivers 5-6cm deep compressions at a rate of 100 to 120 compressions per minute without the need to deliver rescue breaths. Hands-only CPR eliminates the fear of transmitting the disease by removing the mouth-to-mouth component of CPR.

It is still advised that you hand over to a second rescuer every two minutes to ensure that the best possible compressions are given before the AED or EMS arrives.

Adult basic life support in community settings



Child CPR – 1 Year to 18

Child CPR is a very sensitive and worrying thing to think about, let alone to have to do. Children normally need CPR because of a respiratory problem rather than a cardiac (heart) condition, which is more common with adults. Therefore, we first give five rescue breaths and then 30 compressions, followed by two further breaths. You then repeat 30:2 until you are relieved, the EMS arrives, the child shows signs of recovery, or you are too tired to continue.

It is important to remember to cover your mouth over the child's and pinch the nose closed or use a face shield. You need to gently blow for about one second, you will see the chest rise.

To do the 30 compressions, place one hand in the centre of the chest and push down at least one-third of the depth of the chest at a rate of 100 to 120 compressions per minute. If you cannot do this, then use both hands. One third is about 5cm on a child.

If possible, send a bystander to call the EMS immediately. If you are on your own, you should use the "call fast" approach and carry out one minute of CPR, then make the call yourself.

Infant CPR – Birth to One-Year-Old

Infant CPR is again a very sensitive and worrying thing to have to do. Infants, like children, would normally need CPR because of respiratory problems. First, give five rescue breaths and then 30 compressions, followed by two further breaths. You then repeat 30:2 until you are relieved, the EMS arrives, the infant shows signs of recovery or you are too tired to continue.

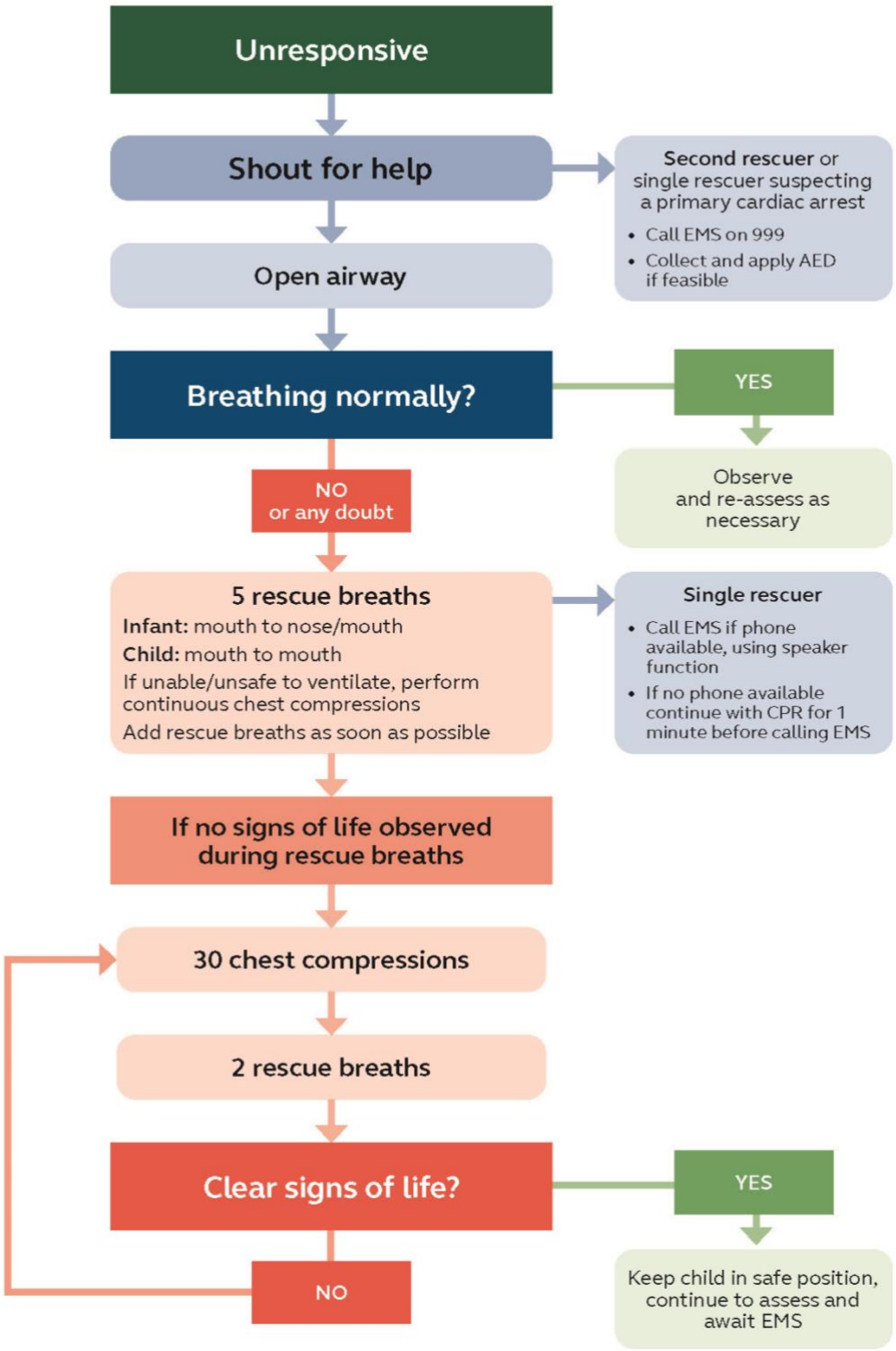
When doing the breaths, cover your mouth over the infant's mouth and nose or use a face shield. Blow gently for about one second, you will see the chest rise.

To do the compressions, place two fingers in the centre of the chest and push down at least one-third of the depth of the chest. Do 30 compressions at a rate of 100 to 120 compressions per minute. One third is about 4cm on an infant.

With an infant, you may be able to carry him carefully to meet the paramedic while continuing CPR, although CPR is best done on a firm surface.

If there is a bystander, send them to call the EMS immediately. If you are on your own, you should use the "call fast" approach and carry out one minute of CPR, then make the call yourself.

Paediatric out-of-hospital basic life support



Compressions Only CPR

Hands-only CPR helps encourage lay rescuers who may be reluctant to help, to get involved. Research shows that not wanting to give breaths is a reason why people do not perform CPR. With this new technique, blood is circulated through the body, which oxygenates the body's tissues and organs without having to perform rescue breaths.

The rescuer delivers 5 to 6 cm deep compressions at a rate of 100 to 120 compressions per minute without the need to deliver rescue breaths. Hands-only CPR eliminates the fear of transmitting the disease by removing the mouth-to-mouth component of CPR.

It is still advised that you hand over to a second rescuer every two minutes to ensure that the best possible compressions are given before the AED or EMS arrive.

Improving Compressions

The optimum position for providing CPR is by the side of the victim to allow for easier movement between the compression and the breaths but compressions could be given over the head if the victim is in a confined space, for example, in the aisle on a plane or bus, where it is not possible to get to their side.

Fear of doing harm, tiredness and limited muscle strength frequently result in CPR providers failing to compress the chest as deeply as recommended. Following case studies, the 2010 guidelines recommendation is that adult chest compressions should be at a depth of 5cm to 6cm. This remains the same in the new 2021 guidelines, however, it has been recognised that it can be very difficult to estimate chest compression depth and that compressions that are too shallow are more harmful than compressions that are too deep.

Therefore, we need to prioritise achieving adequate compression depth.

Regarding the speed of compression, there have been two studies with a total of 13,469 patients, which found higher survival among patients who received chest compressions at a rate of 100–120 minutes.

It was also found that where the chest compression rates were higher than 120 per minute, there was an associated declining chest compression depth, which means it is important to avoid exceeding 2 compressions per second.

The next important thing to remember is to minimise the pause in chest compressions. When delivering compressions, defibrillation shocks, ventilation and AED units analysing the heart all can give pauses between compressions. These gaps need to be reduced to less than 10 seconds to maximize the amount of blood that is pumped around the body.

It is important to communicate well with rescuers to ensure that interruptions are kept to a minimum when delivering CPR.

It is just as important to allow the chest to recoil and to deliver the compression. It is common with CPR for people to lean on the chest and not allow it to fully come back to normal.

Allowing complete recoil of the chest after each compression results in a better venous return to the chest and may improve the effectiveness of CPR. When delivering compressions, think about the recoil as just as important as the compression itself. Therefore, the compression time is equal to the recoil time.

It has been found that chest compression depth can decrease in as little as two minutes so if there are sufficient rescuers, CPR should change to a second rescuer every two minutes which will improve the quality of compression, however, there should be no interruption in chest compressions while changing rescuer.

Finally, practice on a manikin will help you develop your CPR skills. If you’re at home and have no manikin, practice on a toy or a stuffed bag to practice compressions.

When Oxygen is Used

Oxygen was known to be the only element that supports respiration as early as 1800 and was first used in the medical field in 1810. However, it took 150 years for the gas to be used throughout medicine. In the early to mid-20th century, oxygen therapy became rational and scientific. Today, modern medicine couldn't be practised without the support oxygen provides. Oxygen is essential for cell metabolism and life. It is important to ensure adequate tissue oxygenation is essential for normal physiological function. Oxygen assists in reversing hypoxia by raising the concentration of inspired oxygen.

This can only help the patient if the oxygen can be effectively transferred to the tissues and if ventilations are adequate. If the ventilation given with supplementary oxygen is not adequate, the reversal of hypoxia may not be possible. There are many uses of medical oxygen and some of these uses are to provide the basis of virtually all modern anaesthetic techniques, to restore tissue oxygen tension by improving option availability in a wide range of conditions such as COPD, cyanosis shock, severe haemorrhage, carbon monoxide poisoning, major trauma, cardiac or respiratory arrest and resuscitation, to provide life support for artificially ventilated patients, to reduce incidents of surgical wound infections and finally and to aid cardiovascular stability.

Hazards of using Oxygen

There are certain hazards when breathing medical oxygen since prolonged use can cause oxygen toxicity. These can be either central nervous system oxygen toxicity or pulmonary oxygen toxicity. However, both conditions are rare. Medical oxygen strongly supports combustion; it is one of the three components of the fire triangle and will cause substances to burn vigorously, including some materials that do not normally burn in the air. It is highly dangerous in the presence of oils, greases, tarry substances, and many plastics due to the risk of spontaneous combustion in the presence of oxygen in relatively high concentrations.

You must ensure that all equipment is correctly cleaned, maintained, and stored following the manufacturer's specifications. A build-up of carbons on equipment added to the oxygen and a spark could cause an explosion or fire. When using oxygen inside, you should ensure that the room is well ventilated to avoid a build-up in the room which could increase fire risks. There should be no smoking, flames, or sparks when using oxygen.

If you are using an AED there is also a risk of sparking, so remove the oxygen mask from the patient when delivering the shock. It only needs to be removed during the shock; it is safe to use when delivering breaths. Only use equipment that is rated for use with oxygen as the equipment must be safe to work with medical-grade oxygen. Lay the tank down or leave as the manufacturer recommends avoiding the tank from falling over and getting damaged.

Store equipment correctly following the manufacturer's recommendations and ensure any building or vehicle correctly displays warning signs. It should be stored away from direct sunlight in a dry, dust-free environment. Secure when transporting oxygen to avoid it getting damaged or falling and hurting someone. Make sure you service all equipment when needed to ensure that it is fit for use.

In some countries, oxygen is a prescription drug, so make sure you are allowed to transport it to different countries. Oxygen is a hazardous substance and needs to be risk-assessed in any workplace to ensure safety. Risk assessments will also identify any special storage requirements and labelling requirements.

Contra-Indications of Oxygen

Oxygen is widely used in many medical applications, for which there have been no problems. It is vital to promote recovery by increasing oxygen concentrations in the body. High levels of oxygen can be helpful or could cause damage depending on the circumstances and the patient. Unless you know otherwise, it is best to give oxygen to a patient just in case there is a problem.

Oxygen should not be given to a patient who is suffering from Paraquat Poisoning unless he or she is suffering from severe respiratory distress. This is because oxygen can increase toxin. Dealing with Paraquat, a weed killer that is usually only used in agriculture and horticulture, is unusual because it is a very rare condition.

Care needs to be taken with patients with Chronic Obstructive Pulmonary Disease or COPD such as emphysema. Those known to retain carbon dioxide should especially be taken care of. Oxygen could cause them serious harm by reducing the respiratory drive to the point where they stop breathing.

Care should also be taken, and concentrations should be limited in the case of premature infants and patients with chronic bronchitis and emphysema. Finally, guidelines have been published by the British Thoracic Society (BTS) on the safe therapeutic use of medical oxygen. It encourages the proper assessment of the patient before use. You can also find information on Oxygen from your medical gas provider.

COPD and Oxygen Therapy

Chronic Obstructive Pulmonary Disease or COPD is a condition which affects the lungs, and how much oxygen we breathe in and carbon dioxide we breathe out. Around 1.2 million people have been diagnosed with COPD in the UK, but the actual number may be a lot higher. The main causes of COPD include air pollution and particulate work environments; however, these are nowhere near as dangerous as smoking. It is the second most diagnosed lung condition in the UK – with asthma taking the top spot. The oxygen saturation of people with COPD should normally be between 88 and 92%, compared to 95-100% for people without COPD.

The saturation level should not be above this for COPD patients, as this could cause them to develop hypertoxic hypercapnia.

Hypercapnia is where there is a build-up of carbon dioxide in the body and happens because of hyperoxia. This is where more oxygen is being used to form carbon dioxide. Due to COPD, the patients cannot clear this excess carbon dioxide, which makes the blood more acidic. This leads to respiratory acidosis, and in serious cases, can cause death.

Therefore, the oxygen levels must be maintained regularly, and this can be done using specific oxygen concentrations during oxygen therapy with the help of venturi masks, and regularly checking oxygen saturations.

Hypoxia

Hypoxia is a condition in which the body or a part of the body is deprived of adequate oxygen supply. Hypoxia can be classified as either generalised, affecting the whole body, or local, affecting a region of the body.

It is said that the body can be in a hypoxic condition after strenuous exercise, but this is quickly resolved on rest without treatment. Generalised Hypoxia also occurs at high altitudes because the oxygen levels fall and can then lead to altitude sickness. If this happens, you may need to give supplemental oxygen or move them to a lower altitude.

Hypoxia also occurs in healthy individuals when breathing mixtures of gases with a low oxygen content, this can happen while diving underwater especially when using closed-circuit rebreather systems that control the amount of oxygen in the supplied air. Even with standard SCUBA diving, hypoxia can occur as the depth increases and the partial pressure of the oxygen gets higher. It also happens where there has been a contamination of the air supply when air tanks are filled, causing a drop in available oxygen. This, added to the effect of the contamination, can cause serious problems or death.

People can become hypoxic in many conditions including heart attacks, shock, asthma, poisoning, drowning and cardiac arrest. Hypoxia can result also from self-harming like drug overdose and strangulation. A mild and non-damaging intermittent hypoxia is sometimes used intentionally during altitude training to develop an athletic performance adaptation at both the systemic and cellular levels.

The symptoms of generalised hypoxia depend on its severity and acceleration of onset.

In the case of altitude sickness, where hypoxia develops gradually, the symptoms include light-headedness, tiredness, numbness, tingling in extremities and nausea. In severe hypoxia, or hypoxia of very rapid onset, confusion, disorientation, hallucinations, behavioural change, severe headaches, reduced level of consciousness, breathlessness, pallor skin, tachycardia and pulmonary hypertension eventually leading to the late signs' cyanosis, bradycardia and hypotension followed by death can occur.

Local hypoxia is where the problem is in one part of the body. The tissue is not being perfused properly with oxygen and it may feel cold and appear pale. When local Hypoxia is severe, it can result in cyanosis, blue discolouration of the skin. If hypoxia is very severe, a tissue may eventually gangrene. Pain may also be felt at or around the site.

Hypoxia in first aid can be treated with the use of medical oxygen; the levels can be monitored using a Pulse Oximeter and looking at the signs and symptoms of the patient.

Hyperoxia

Hyperoxia is where the body has too much oxygen in its system. It is the opposite of Hypoxia and can manifest into oxygen toxicity and hypercapnia. Hypercapnia is where there is a build-up of carbon dioxide in the body and happens because of hyperoxia. This is where too much oxygen is being used, causing a build-up of carbon dioxide.

Carbon dioxide in too high quantities will affect the acidity of the blood and can lead to respiratory acidosis. If not dealt with quickly, this can be fatal. Scuba divers and people partaking in oxygen therapy are at risk of developing hyperoxia. This is due to exposure to high partial pressures of oxygen, and oxygen becomes toxic depending on the pressure and concentration of the amount being inhaled.

There are three main effects that oxygen toxicity has on the body. It affects the Central Nervous System, the eyes, and the lungs. These can be fatal or life-changing if not dealt with quickly. Signs and symptoms of hyperoxia include disorientation, euphoria, respiratory problems and seizures, and medical help should be sought out should someone present with these symptoms, especially if they are partaking in something like SCUBA diving, freediving, or oxygen therapy.

Pulse Oximetry

Before you use pulse oximetry, look at the patient. What colour are they, are they a nice pink colour, are they blue, are they cyanosed, are they hypoxic, are they using ancillary muscles to breathe, what is the actual condition and what signs are they showing us to say that they have an oxygen problem or a breathing problem. Is there any muscle damage, are there any fractures or are there holes in the chest. To help check the patient, you should learn how to use a pulse oximetry and how you use it. First, it needs to go onto a finger. It can be used on an earlobe, and some can be used on nasal cavities these days. The finger itself and the nail itself needs to be clean. Nail varnish can affect the way a pulse oximeter works. If the patient has a tourniquet on an arm, that will affect the way a pulse oximeter works because the tourniquet is cutting off the blood supply. If you have a fracture on that arm that's affecting blood to the fingertips, that will also affect the reading you get.

Other items like tight clothing, posture, oxygen levels in the room that they're breathing, carbon monoxide, those sorts of things will all give you potential false readings, or fake readings on a pulse oximeter. You need to have an accurate reading. Non-accurate readings are not worth taking at all. First, you find a finger and make sure there is no restriction on the arm at all, not affecting the blood flow to that finger itself. One thing you can use very quickly to check is cap refill. This is done by squeezing the finger and allowing the capillaries to refill with blood. They should

refill in under two seconds. If it's over two seconds, there is a restriction in blood flow which may affect the pulse oximeter. Cyanosis to the fingertips is a sign that there is an oxygen problem

There are two types of pulse oximeters. There are the small finger probes, or the more complex ambulance type probes. You should turn it on and make sure that the finger is clean, there is no oils, grease, there is no nail varnish or anything else on the finger itself and it is clipped onto the finger. The pulse oximeter will give you oxygen saturation and a pulse of the heartbeat and oxygen saturation should be between 95-98%. If that's the case, this patient does not require oxygen. They're breathing quite happily, their airways are working fine, oxygen is getting to the tips of the finger, and giving us an accurate reading. If it drops below 95, we are now talking about a hypoxic patient that does need some oxygen to help them breathe. Look at the condition, look at the way they're posturing, look at the way the pulse oximeter is reading, and make your decisions from accurate statistics and facts and figures. Do not guess and do not jump to conclusions. These are designed to give us accurate feedback.

It is also important to remember that you never put a pulse oximeter on the same arm where you are putting a BP cuff because as you blow the BP cuff up and you cut off the blood supply. You will not get an accurate reading if there is no blood supply. If you have applied it correctly you will get a reading onto the actual monitor itself, giving you an oxygen saturation between 95 and 98.

Storage Of Oxygen

There are special rules with the storage of oxygen cylinders because they need to be kept so that they do not get damaged or pose any risks. You should check your workplace risk assessments for the correct storage to ensure they apply to current rules.

The general rules for the storage medical grade oxygen cylinders are:

- Stored under cover, preferably inside, kept dry and clean, and not subjected to extremes of heat or cold and away from stocks of combustible material
- Stored separately from industrial and other non-medical cylinders
- Stored to maintain separation between full and empty cylinders
- Used in strict rotation so that cylinders with the earliest filing date are used first
- Stored separately from other medical cylinders within the store
- F size cylinders and larger should be stored vertically
- E size cylinders and smaller should be stored horizontally.

Warning notices prohibiting smoking and naked lights must be posted clearly in the cylinder storage area. Emergency Services may also need to be advised of the location of the cylinder store. Finally, portable oxygen kits need to be stored correctly and safely in accordance with the guidelines above and the manufacturer's recommendations. This also applies to storage in vehicles.

Transport of Cylinders

When medical oxygen cylinders are required to be transported, ensure that the cylinders are:

- Located in a compartment separated from the driver
- Adequately restrained
- Not leaking and have their valves closed.

The vehicle must be adequately ventilated, and the driver is aware of any potential hazards and knows what to do in the event of an accident or an emergency. It is advisable to provide the driver with written instructions that detail the actions to be taken in the event of an accident or emergency. Cylinders should be removed from the vehicle as soon as possible.

If you need to use medical oxygen within a vehicle, you are advised to:

- Prohibit smoking in the vehicle
- Only carry the minimum number of cylinders to provide sufficient gas for patient use during the journey/activity
- Ensure all cylinders are adequately restrained
- Keep cylinder valves closed when not in use
- Avoid using the cylinder when the vehicle is being refuelled
- Set the ventilation system to fresh air or open a window to provide adequate ventilation and to prevent oxygen enrichment within the vehicle
- Avoid leaving cylinders unattended in a vehicle. Unless the vehicle is specifically designed to carry medical oxygen cylinders, they should be removed from the vehicle overnight.

Standard Oxygen Cylinder

The standard oxygen cylinders. This is the type of cylinder that you would find on ambulances, in a lot of oxygen kits, in hospitals, doctors, all sorts of places have this standard kit. Now the thing with this cylinder is it's not just a cylinder. It's a carbon wrapped cylinder, with an integral regulator built onto the end. You do not need any separate parts to it. It is just one unit; you just need the mask that goes separate and the oxygen tubing.

The advantage of a standard cylinder is it is lighter and easier to work with, and because of the carbon wrapping on it, it doesn't get so damaged. It's designed to be laid flat. The cylinder should not be held up on its end because there's more chance of it falling over and possibly damaging the area on the end. The part in the middle is this collar, and on the collar is key information about the kit, and what you need to do. It has the standard warning signs on and oxygenating agent sticker to state that they have compressed gas inside.

The reason cylinders have this label on it is because it will cause a major problem if it catches fire. You must have these warnings and these warning signs should also be placed on vehicles or in storerooms. Other information you should consider are the codes of each unit. It should say that it's odour free, which oxygen would be and there's no smell to it. It will also disclose other warnings about fires. Make sure you keep cylinders in a well-ventilated place, keep out of reach of children, and make sure you are aware of the emergency telephone number. If oxygen was ever involved in a fire or it was leaking or any there were other problems, there is a number directly on the tank that tells you where to phone. In this case, it's the emergency numbers for medical gases.

All gas cylinders should be bar-coded for the purposes of being tracked. These cylinders would have 99.5% pure medical-grade oxygen in them, not welding oxygen or any other form of oxygen. You must remember to use medical grade oxygen in first aid.

The cylinder will also disclose other warnings, including the size and volume. A 300-litre version of oxygen will flow at a rate between 0 and 15 litres per minute.

The gauge is at the top of the cylinder and will tell you how many oxygens are in the cylinder. The green indicator means it's full and the red section means it's empty or nearly empty. You can see the dial move as you are using it and when the cylinders laying down. When the cylinder is empty, you would take the entire unit back to the supplier and they will give you a completely new unit. This means you should not remove the regulator as they will give you a new cylinder. You will see at the of the cylinder a main control knob, which is there to turn the regulator on. By turning the regulator, you allow the flow of oxygen to come through.

The control on the top of the cylinder is where the oxygens come out and there is a barbed outlet which is where the push-fit oxygen hose goes onto. The grey knob is where you turn it on, and oxygen will go from 0 to 15 litres a minute and then you turn it back around to zero to turn it off. Once you've turned the cylinder off, you will have pressure in the system. To reduce the pressure, you need to go back to the main control unit, control knob, turn that off, and then come back up to the knob at the top and just turn it and just purge the air out. You will notice a slight hiss as an indication that it is being purged. You should then turn it off. You will need to store it somewhere different from a full cylinder when it has been used, so no one's going to use this by mistake. You will we need to get this replenished or replaced by the local supplier as soon as possible.

PIN INDEX cylinder

The pin index is a different type of cylinder, and the cylinders discussed above are the most common. A pin index is one you tend to find in most hospitals and in other sectors too such as the scuba diving world. You are required to refill the cylinder in scuba diving because a dive centre can refill oxygen cylinders, which means they have a different system to the standard one.

The pin index cylinder is made of steel which means it is much heavier than normal cylinders. You will notice with these cylinders that it does not have a base on it, to stop people laying it down on the base.

The cylinder has some markings around the top. These are the pre-set markings done in manufacturing and they will stamp that date into the actual tank, the weight of the cylinder, maximum pressure, volume, and some other references along there.

There are different rules and regulations regarding different types of cylinders, so you would need to check exactly what testing is required of these cylinders, but they must be oxygen rated and pressure tested correctly. The process includes a pressure is test and then the oxygen is cleaned because you cannot have any build-up of deposits of carbons within the cylinder. Once it's been tested, it will then be covered with the correct stickers and punched to say that it's been tested on a certain date, and when it then needs to be done again.

Pin index works by having two pins on the regulator and those two pins are secure into the hole to make sure that it fits on nice and tightly. The clamp on the regulator will fit into the hole on the back. You then line-up the pins and clamp the regulator in place. Please remember to avoid tightening this, because the pressure of the oxygen coming out will hold that regulator in place.

A conventional or basic regulator will have a barbed outlet on it and the gauge will show you how much oxygen is left in the cylinder. There will be a knob that you can turn around which releases the gas from 0 to 15 litres per minute.

The Pin index cylinder tends to be smaller than other cylinders and may have a different type of connection. The DIN connection or bullnose is slightly different, and it screws into the tank. A converter could convert from DIN or bullnose over to the pin index system. It's something that may be used in certain applications in remote areas.

Oxygen Regulators

Oxygen Flow control regulators and conserving devices are pressure reducing devices designed to regulate or lower oxygen pressure from a cylinder to levels that can be safely used by the patient. A Regulator simply regulates the (free) flow from an oxygen cylinder. A Conserving Device is an entirely different kind of device that delivers a "pulse" of oxygen as the patient inhales (on demand).

Regulators and Conserving Devices are selected based on the type of valve connection to your oxygen cylinder. Most use either a CGA870 or CGA540 valve for connecting to the cylinder. Oxygen output (to cannula) is via a BARB or DISS outlet. Barb is just like the name states - it's a barb type connector that the tubing is forced onto. The DISS type connector is a screw-on connector.

This is how a regulator works:

Step 1: Check you have the correct Regulator which will supply you/the patient the prescribed flow rate.
Step 2: Ensure you have the correct medical gas cylinder and ensure the flow selector on the top of the cylinder is set to zero.
Step 3: Insert the Regulator directly into the shrader value until it clicks. Attach the tubing to the Regulator.
Step 4: Set the Regulator to the prescribed flow rate by rotating the dial selector.
Step 5: Slowly turn on the cylinder by rotating the handwheel anticlockwise until it comes to a complete stop.
Step 6: If you need to remove the Regulator push and turn anti clockwise and repeat steps 1-5.

Oxygen Kit

The LIFELINE kit is provided in a purpose-made, rucksack-style carry case for easy transportation to the casualty. It contains a lightweight medical oxygen cylinder with an integral regulator and a selection of oxygen masks.

Oxygen can be delivered between 1 and 15 litres per minute. This provides up to half an hour of treatment at the highest flow rate, helping to prevent the casualty from deteriorating before the arrival of professional medical assistance.

The oxygen cylinder is inspected annually by the service provider to ensure that the cylinder is in good working order.

A report is produced and left to the customer as an auditing record.

The gas providers healthcare's dedicated LIFELINE team provide a next working day refill service. The kit can also be tailored to meet a specific requirement with additional equipment such as:

- Bag valve masks
- Paediatric masks
- Airways
- Suction devices

Benefits

- Safe and simple to use
- Fully portable
- Lightweight oxygen cylinder with built-in, integral regulator
- Variable flow rates from 1 to 15 litres per minute
- Annual cylinder maintenance by medical gas provider
- Single annual service charge
- Next working day refills (Monday to Friday & excludes some remote geographies)
- Reduces the risk of cross-infection due to minimal patient contact

How Long Does an Oxygen Cylinder Last?

There are different sizes of Oxygen cylinders available, and you may need to plan how long they will last so that you can ensure you have enough Oxygen for your needs.

There is a simple formula to calculate how long a cylinder will last but to start, you will need to know a few figures.

The first unit you will need is the cylinder pressure. This should be on the cylinder, or you can ask your supplier. In the following example we will use the pressure as 2000 psi. You will need to take off this figure a residual pressure of 200 psi. This will allow 200 psi for errors in calculating or initial cylinder fill errors and give a short extra supply.

The next figure you need is the cylinder constant. This is a figure you need to calculate the time it will last. These are set figures you will need, and these are:

In a "D" cylinder the constant figure is 0.16, an "E" size is 0.28, an "M" size is 1.56, a "G" size is 2.41, and an "H" and "K" size is 3.14. Do not worry about remembering the constant figure, you can refer to the fact sheet we provide in the download area of this course. Use the figure that is relative to the size cylinder you have. In the example we will give, we are calculating the time a "D" size will last so we will use the constant figure of 0.16.

The final figure you need to know is the flow rate in litres per minute. The usual maximum flow rate regulators give is 15 litres a minute. This may be higher in specialist applications like in scuba diving where the rate could be 25 litres a minute.

Now let's calculate how long a "D" cylinder will last 15 litres a minute.

The formula is:

Tank pressure minus residual pressure multiplied by the cylinder constant divided by the flow rate. This will give you the time in minutes that the cylinder will last.

In this example, 2000 psi minus 200 psi equals 1800 psi.

Multiply 1800 constant 0.16 and this equals 288.

Finally, divide this figure of 288 by 15 litres a minute to equal 19.2 minutes which you would usually round down. Which means, a "D" sized cylinder will last 19 minutes at 15 litres per minute.

MEDICAL OXYGEN CYLINDERS

Portable Suction Units

If you are performing any type of resuscitation and the patient has vomited in their mouth, this needs to be removed. You do not want the patient to inhale it into their lungs when you are performing the resuscitation.

A portable suction unit is the basic type of unit. By squeezing the handle on the unit, you can easily remove fluids that could be causing problems within the respiratory systems. The tank can be disconnected, allowing the unit to be disinfected or disposed of after usage. Every portable suction unit will have its instructions, so it is advised that you be familiar with these before an emergency occurs.

Pocket Mask

The pocket mask is an effective way of being able to deliver breaths into a patient and forming a barrier between you and the casualty. A pocket mask sometimes comes with a case. It has a small clip on the end, you can open that up and expose the pocket mask. The pocket mask can be squeezed so it fits in the case. All you need to do is push your thumbs on the end and push it out, and now the mask is ready for use. The elastic strap could then be used to place the mask over the patient's face and the elastic goes behind the head and is designed to keep it in place.

A pocket mask has an air-filled sack around the outside and will seal around the face. Then you can deliver the breaths through the mouthpiece. The mouthpiece has a one-way valve so the air's going in through the valve and then exhaled, which means you are not getting someone else's breath coming back at you. If the patient has blood in their mouth or vomit, you are keeping yourself protected by using the pocket mask. It is a much more pleasant way of delivering rescue breaths.

The other feature of a pocket mask is you can give supplementary oxygen. You would only give supplementary oxygen if you were trained to do so.

Non-Rebreather Mask

The non-rebreather masks. There are more basic systems of this, but this is probably the most common one that's used. The non-rebreather mask is a mask with oxygen tubing and a reservoir bag. This is designed to allow oxygen to travel through the pipe. Once it's going through the pipe it will enter the oxygen reservoir bag, and then the mask itself is secured around the patient's head where you can adjust it by pulling on the straps. There is a metal clamp at the top that you can gently squeeze around the nose. As the bag fills with oxygen, the patient breathes from the bag rather than directly from the pipe, so that's continually flowing.

The non-rebreather mask is a single-use only mask that comes in a plastic bag, which means throw it away when you are finished with it. These types are masks are not designed to be cleaned because there are different fabric points, and they are not very expensive. The fabric points cost about two-three pounds each and are often cheaper than that. They come in different sizes and there are paediatric versions of it as well. These masks also come with instruction and information about the mask itself, giving basic information of what it's for and how it is to be used.

The mask itself is connected just with a push-fit which means you do not use any clamps, so it has a very straightforward, easy way of working. All you do is take the oxygen tubing and push that over the barbed outlet, so it's securely in place. You then turn the oxygen on by turning on the flow rate at the top. You need to set the gauge to start at 15 litres a minute. You will see the bag is inflating and the patient then breathes in the oxygen. It is important to always keep the bag full. You are encouraged to slow the flow rate down if the patient is getting 100% oxygen.

When you have finished, just turn the tank off, remove the pipe from the end, and remember to purge the regulator, so turn the main valve off, purge the regulator at the top, close that off, and then you can lay the cylinder down. How effective these are will vary on certain criteria. One would be the tidal volume. How much someone is breathing, whether they are breathing fast, whether they are breathing slow, and this can affect the flow rate you would put onto them. Make sure the mask seals around the patients face. If it's not a good seal, air will come through the outside, mixing with the oxygen, and reducing the oxygen percentage. Research finds that some are a little bit claustrophobic when they are wearing these masks, so they wear them around their neck bringing it away from their face.

The thing to do with a mask like this is to tell people why they need to have it on. You are not scaring people but tell them it's important they keep it on. Communicate with them and encourage them to breathe normally. Some people may confuse oxygen with something like Entonox, so just say, "This is just oxygen. There's nothing special about it, in the sense you are not going to feel any different, but medically, it will have a great impact on them.

VENTURI
OXYGEN MASK

Venturi Oxygen Mask

Different masks allow you to set the percentage of O2. This is ideal for COPD patients, where you need to control the O2 percentage to avoid the build-up of carbon dioxide. Some are set to one colour and others have an adjustable valve.

Different versions of Venturi Oxygen Masks:

- Single use
- Tubing and mask
- Transparent mask to see skin colour
- Elastic strap
- Holes in sides to let air escape
- Different coloured Venturi valves

They work on different flow rates of up to 15 litres per minute.

They can provide oxygen concentrations of:

- 24%
- 28%
- 35%
- 40%
- 60%

Demand Valves and MTV's

A flow-restricted, oxygen-powered ventilation device (FROPVD), also referred to as a manually triggered ventilation device (MTV), is used to assist ventilation in apneic or hypoventilating patients, although these devices can also be used to provide supplemental oxygen to breathing patients. It can be used on patients with spontaneous breaths, as there is a valve that opens automatically on inspiration. When ventilating a patient with a (FROPVD) you must ensure an adequate, constant oxygen supply is available. Once the oxygen source is depleted, the device can no longer be used because it is driven completely by an oxygen source. The (FROPVD) has a peak flow rate of 100% oxygen at up to 40 liters per minute. To use the device, manually trigger it until chest rise is noted and then release. Wait five seconds before repeating. The device must have a pressure relief valve that opens at 60cm of water pressure to avoid over ventilation and trauma to the lungs. The (FROPVD) is contraindicated in adult patients with potential chest trauma and all children. Note: (In cases with an apneic patient the best results will be achieved using the Two-person bag-valve-mask technique.) Proper training and considerable practice are required to correctly use the FROPVD devices.

One way of delivering oxygen to somebody is using a demand valve. A demand valve is designed to allow users to provide 100% pure oxygen.

Demand Valve Oxygen Therapy is a way of delivering high flow oxygen therapy using a device that only delivers oxygen when the patient breathes in and shuts off when they breathe out.

A demand valve works on a Pin Index System and the valve allows the oxygen to come through. The regulator then allows the oxygen to come out only when the patient is breathing in. This works very similar to the likes of an ENTONOX cylinder or scuba regulator if you've been diving. As much as you want to breathe in, it will give you as much oxygen as you need.

Some demand valves can also work with a standard pocket mask.

Nasal Cannula

The nasal cannula is another way of delivering oxygen to a patient. There are simple devices that connect to the constant flow outlet of an oxygen cylinder and then the two small plastic prongs are placed into the nostrils.

Nasal cannulas are easy ways of delivering a lower concentration of oxygen at 24 to 44% depending on the flow rate of the oxygen and the amount the patient is breathing through their nose and how much they are speaking. Generally, it is difficult to gain oxygen concentrations over 30 to 35%.

Nasal cannulas can only be given to patients who can breathe freely through their noses. They are usually tolerated since they are not found to cause the distress that a standard mask causes. The nasal cannula is only useful for patients who would benefit from a low concentration of oxygen. The maximum flow rate that you should use is 6 litres a minute and a higher rate would cause problems and discomfort.

The flow rate compared to an Oxygen concentration is as follows:

- 1 litre per minute - 24%
- 2 litres per minute - 28%
- 3 litres per minute - 32%
- 4 litres per minute - 36%
- 5 litres per minute - 40%
- 6 litres per minute - 44%

Nasal cannulas are not used in first aid or out-of-hospital emergency treatment since a higher concentration of oxygen is usually required in those circumstances.

Oxygen Giving Set

Oxygen Giving Sets are usually seen and are available in a hospital and next to the patient's bed. A dentist also has an oxygen giving set. The Schrader valve itself will plug into the wall into a fitment to deliver the oxygen. You will then notice a glass file with a ball inside and a gauge. The gauge is litres per minute, and the little ball inside floats on the air to measure the number of litres per minute that you are giving the patient. There is also a regulator at the front which controls the amount of flow to regulate the ball going up and down the tube itself. Then there is the port that the oxygen pipe fits on to allow the oxygen to go to the patient which comes from the plumbing system, through the ball and out again through the bottom into the actual mask or nasal cannula or whatever the device is that you are going to use to put oxygen into your patient.

The hospital ward or in the back of an emergency vehicle is where the oxygen is plumbed to, which is an oxygen port. The oxygen port fits into the actual Schrader valve itself and it does so by just pushing. You put the valve in, push it home and it clicks and locks. It is now fixed, it will not come loose, it is fixed in that position, and it is now coupled to the main oxygen supply in the vehicle or in the hospital system that you are working in. If you turn the valve on, you will see that the ball starts to float to give you the flow rate that we are going to give the patient. In most cardiac situations you will give 15 litres per minute, but if you are strictly oxygenating into somebody, it is important to drop the volume of oxygen down to two or three litres per minute.

If you do need to take off the giving set itself, the first thing you must do is to turn the oxygen off in the vehicle, release the pressure by opening the valve so there's no pressure in the system, and then press the circle around the Schrader valve to release. The oxygen should always be turned off and the system drained of pressure before you remove it. It just keeps the system safe; it keeps you safe and stops anybody from getting injured.

Bag Valve Masks

If you are not willing or not able to do rescue breaths on someone, you can use the Bag Valve Mask (BVM). A good way of getting ventilations into a patient is using the BVM.

You would connect the BVM to oxygen and the oxygen would filter into the system and go into the reservoir bag. You would deliver a breath to the patient and provide oxygen as well. You will notice a compressible bag that will provide oxygen to the patient. As you breathe, you give the breath and as you give out, you can hear the noise it is giving as it is sucking the oxygen into the patient. You should place the mask onto the patient's face, ensuring that you have a very good seal over the nose and onto the chin.

You need to open the airway completely by doing the head tilt chin lift or open it up fully to extend the airway. You need to ensure that you are pushing down on the face mask to achieve the seal, but at the same time not squashing everything too tight. We recommend a two-man technique so that one can hold it completely onto the face, open the airway, and then somebody else can compress the bag to deliver the breath.

When you squeeze the bag, you always make sure that you only use one hand. If you use two hands, what you will do is cause trauma to the lungs, and you damage the lungs and ventilation becomes much more difficult in the future."

Oxygen and Anaphylaxis

When a patient is having an anaphylactic reaction, it is important to give them oxygen as soon as it becomes available. With whatever system you use, you should initially give the highest concentration of oxygen possible using a mask with an oxygen reservoir.

You should ensure that a high flow of oxygen is delivered, usually greater than 10 litres per minute, to prevent a collapse of the reservoir bag during inspiration. This should be a continuous procedure. If the patient’s trachea is intubated or they stop breathing, you will need to ventilate the lungs with high concentration oxygen using a self-inflating bag valve mask. This will deliver the maximum concentration of oxygen to the patient.

Medical Oxygen User Instructions

1. Check the gauge to see how much oxygen is in the cylinder. Contact us for a refill when the needle is in the red section.

2. Attach the mask to the outlet above the gauge.

3. Alternatively, insert a compatible device into the quick connect port on the right side of the valve (push until you feel a 'click').

4. Turn the flow rate selector anti-clockwise to match the black arrow with the required flow rate.

5. To stop the flow of oxygen, turn the flow rate selector clockwise to the off position. Make sure it is turned all the way

6. If a compatible device was used, disconnect it by pushing the outer ring of the quick connect port.

Endorsed, CPD Certified and ISO Standards

All ProTrainings classroom and online qualifications are endorsed though an Awarding Organisation Regulated by Ofqual, through the Skills for Care Scheme with the highest level of recognition and are approved through the CPD Standards services for CPD certification.

ProTrainings: Additional quality at an affordable price.

This is the highest standard of recognised endorsement and only organisations who have a proven history of continued success in making a difference in the training industry can be awarded the Centre of Excellence endorsement. ProTrainings proudly announce that we have received this endorsement for continuous professional training delivery.

As a recognised Skills for Care provider who is already endorsed for delivering training through digital e-learning, classroom and blended formats, this enhanced Centre of Excellence endorsement will take our credibility and quality of training to an advanced state of recognition. But what does this new Centre of Excellence endorsement mean?

The Centre of Excellence status means that we have been able to consistently demonstrate exemplary commitment to meeting the needs of learners in the adult social care sector. This meant we needed to comply with the social model of care and be able to measure the impact of provision on the lives of people who use these services.

We embarked on this provision to prove how consistent ProTrainings services are, to test whether we are meeting a high standard, to evolve, adapt and improve our provision and to place ourselves amongst a small selection of companies who are a Skills for Care Centre of Excellence.

Gaining this accolade has resulted in receiving a designation as a 'Centre of Excellence in Adult Social Care and Learning and Development' and we do not plan on stopping our standards here. We will continue to offer the finest services so that lives are rewarded through the training and services we provide.

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