Cardiopulmonary resuscitation is divided into basic life support procedures and advanced life support procedures. This procedure, which describes treatment of adults, falls within the category of basic life support and can be carried out by anyone with the appropriate training.

Basic life support consists of airway, breathing and circulation support, using no equipment other than a protective barrier device (Resuscitation Council (UK), 2015a). If there is to be any chance of survival for the person who has suffered a cardiorespiratory arrest, the person providing assistance must take steps to maintain the airway at the earliest opportunity. This is the reason why basic life support is taught to members of the public as well as to healthcare professionals. In the algorithm on basic life support for adults, opening the airway follows calling for help: it is thus critically important and has an early role in promoting survival. If the person cannot breathe despite an open airway, the person or people assisting will need to administer 30 chest compressions followed by two rescue breaths in a continuous cycle.

This procedure will describe the head-tilt/chin-lift manoeuvre to open the airway in an unconscious person. Note that in patients with a suspected injury to the cervical spine a trained person will attempt a jaw thrust to open the airway (see page 3) but reduce movement to the spine. If this fails, a head tilt, a small amount at a time until the airway is open, may be the option to save the person’s life (Resuscitation Council (UK), 2015b).

It is important not to delay assessment by checking for obstructions in the airway (Resuscitation Council (UK), 2015). Trained staff may, however, deem it necessary to perform suctioning in order to clear oropharyngeal secretions. This is not part of basic life support but may be appropriate. If suction is required, portable suction may be useful if it can be brought to the patient, or it may be possible to use a Yankauer suction catheter with bedside suction. Only suction as far as you can see, to avoid trauma to the airway, and maintain the patient's head in the head-tilt/chin-lift position to keep the airway open. Leave dentures in place unless they are very loose and blocking the airway.

Even if the person has not suffered a cardiopulmonary arrest but is unconscious, as a result of drug or alcohol use, for example, or following a road traffic accident, performing the head-tilt/chin-lift will help to save his or her life. It is possible to assess if the head-tilt/chin-lift manoeuvre has been successful: the person will either be able to breathe again or will breathe more easily with less noise and effort. Alternatively, during mouth-to-mouth breathing, it will be possible to see the person’s chest rise as air enters.

If the airway remains blocked, the person will die.

Open the airway—head-tilt/chin-lift: (a)

If you are able to put on gloves, do so as quickly as you can. To open the airway, move the person on to his or her back on a firm surface. Place one hand on the forehead and three fingers under the chin.

(b)

Applying pressure with your fingers under the point of the chin, lift the chin as you move the head back, opening the airway. Look, listen and feel for normal breathing, taking no longer than 10 seconds for this assessment.

Do not undertake or attempt any procedure unless you are, or have supervision from, a properly trained, experienced and competent person. Always first explain the procedure to the patient and obtain his/her consent, in line with the policies of your employer or educational institution.
Where there is a suspected cervical spine injury, trained healthcare professionals may try to open the airway using a jaw thrust, as shown here. First place your fingers under the angle of the jaw on either side.

Once your fingers are in place, lift the jaw vertically to open the airway. This movement will lift the tongue off the back of the throat and airway.

If needed, you can use your thumbs to open the mouth. Maintaining a jaw thrust can take much more effort than opening the airway in the usual fashion. If you become tired, ask an appropriate colleague to take over.

If the attempt to perform a jaw thrust is unsuccessful, then use just enough head-tilt, a small amount at a time, to clear the airway. Establishing a patent airway, oxygenation and ventilation takes priority over concerns about a potential cervical spine injury (Resuscitation Council (UK), 2015b).

Where there is a suspected cervical spine injury, jaw thrust is frequently used in combination with manual in-line stabilisation (MILS) of the head and neck by an assistant, if enough people are available (Resuscitation Council (UK), 2015b). MILS helps keep the spine in line with the head and reduces the risk of further spinal damage.

An oropharyngeal or Guedal airway will keep the airway open without having to tilt the head and is therefore useful in a suspected spinal injury where MILS or a neck collar is applied. The correct adult size must be used. It is always put in upside down with the open end facing the roof of the mouth, then turned as it is pushed into place. (See the procedure on “Insertion of an oropharyngeal airway” for more information.) When the person regains consciousness, he or she will cough or spit the airway out.

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