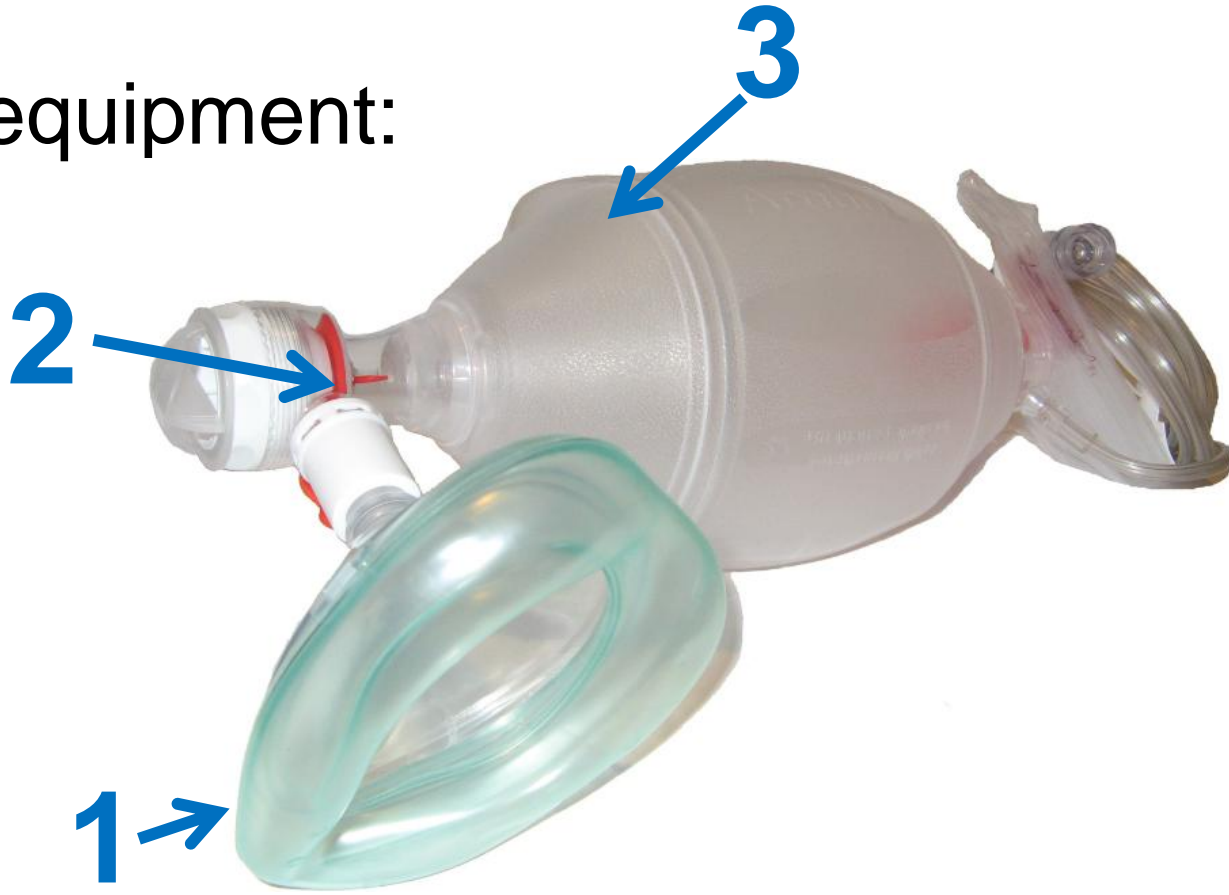


# Bag Valve Mask



# Bag-Valve-Mask Ventilation 1

The equipment:



See next slide for description

# Bag-Valve-Mask Ventilation 2

This is an hand-held device used to provide positive pressure ventilation to the patient who is not breathing, or breathing inadequately. It is used in place of mouth-to-mouth ventilation as it avoids direct contact with the patient's saliva/vomit, but also enables delivery of oxygen.

If consists of:

1. a mask over the patient's face. This must fit well to ensure a seal between the mask and patient's face.
2. a one-way valve connecting the mask to the bag, preventing backflow of expelled air into the bag.
3. a flexible air chamber, the "bag", which is squeezed by the operator to provide air to the patient's lungs. The bag re-expands after being manually collapsed, drawing oxygen in.

# Bag-Valve-Mask Ventilation 3

This system can then be attached to an oxygen system.

The operator must decide on the frequency of breaths for the patient, as well as the volume of each breath. Usually 500-800mls per breath, one breath every 6 seconds. Any more than this risks volutrauma or barotrauma to the patient (over stretching the lungs or providing too much pressure).

If the patient is making some effort to self-ventilate, the operator can coordinate with the patient's own breaths to assist with positive pressure ventilation.

# BVM Bag & Mask Sizes

Various sizes of bags:

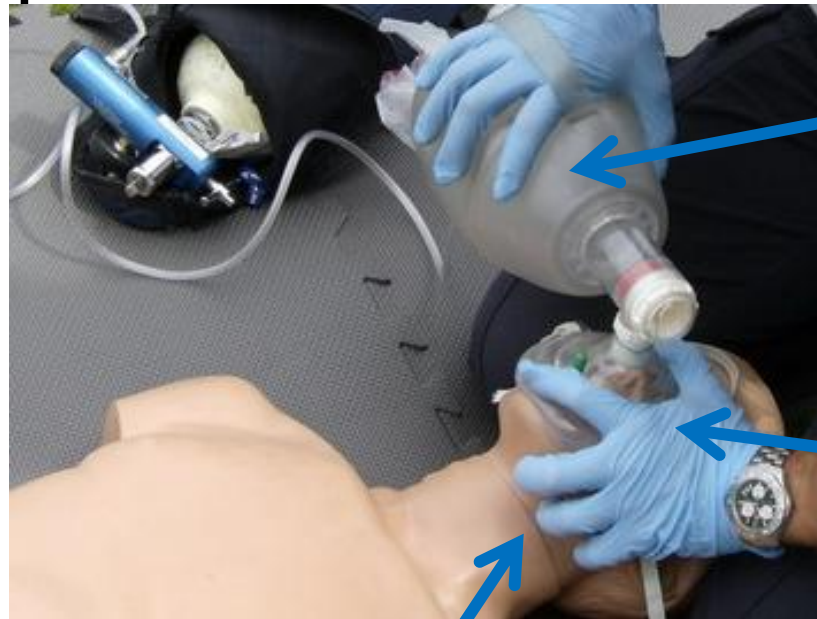
- Adult 1.5L
- Adult 1.0L
- Paediatric 550ml
- Infant 280ml

Various mask sizes:

- Ensure the patient's eyes are not covered
- The mask should not extend beyond the chin

# One-person Technique 1

The technique:



3

1 = "C"

2 = "E"

See next slide for description

# One-person Technique 2

This technique is difficult even for the most experienced of operators. Once you have your equipment assembled, including the correctly sized mask for your patient and a connection to high flow oxygen, you can begin to BVM:

Using similar technique to the jaw thrust, secure the mask to your patient's face with your left hand (most common choice):

1. Make a "C" around the mask with your thumb and forefinger.
2. Place the rest of your fingers along the mandible in order to elevate the mandible whilst maintaining a tight seal (sometimes referred to as an "E").
3. Your right hand is then free to bag.

# Two-person Technique

It is easier if the two-person technique can be used:



1. The first person manages the mask and the airway...
2. Whilst the second person manages the bag and ventilation.

This leaves the first person free to use both hands to hold the mask in place, lift the mandible and ensure a tight seal.



# References

Image BVM equipment: <http://www.cfrhq.co.uk/bvm-solo-cfr/> Accessed 11.10.16

Image BVM Ventilation:  
<http://www.firefightermedic.com/wiki/bag-valve-mask-bvm/> Accessed 11.10.16

Image BVM Ventilation two-person:  
<http://www.omicsgroup.org/journals/how-to-overcome-difficult-bag-mask-ventilation-recent-approaches-2165-7548.1000e116.php?aid=5119>  
Accessed 11.10.16