

BVM Ventilation Guidelines – Water Safety Ireland

The BVM (Bag Valve Mask) is a device that can be used to provide oxygen to unconscious patients. It consists of a self-inflating bag, and an attached soft facemask. When the rescuer squeezes the bag, it forces air through the mask and into the patient, providing oxygen.

The BVM is a two-person skill for lifeguard rescuers, as to use it with one person requires significant skill and experience.

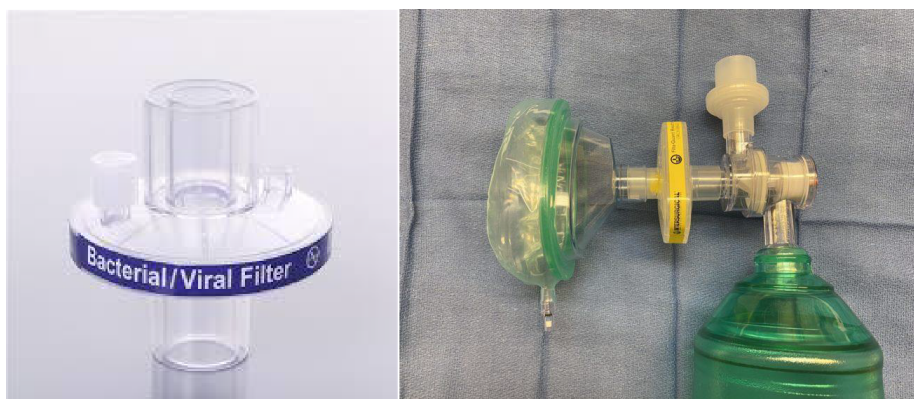
The BVM can be used with or without oxygen attached. It will work fine without oxygen and will provide “room air” to the patient.



⇒ Benefits of using a BVM

For the **patient**, the BVM provides a very effective means of getting oxygen.

For the **rescuer**, the BVM removes the need to have mouth to mask contact and significantly reduces any cross-contamination risk. A small device, known as a “viral filter”, can be attached to the BVM, which also reduces the risk by filtering out over 99% of viral particles from any patient secretions



Left Image- Viral Filter; Right- BVM with viral filter (yellow colour) attached

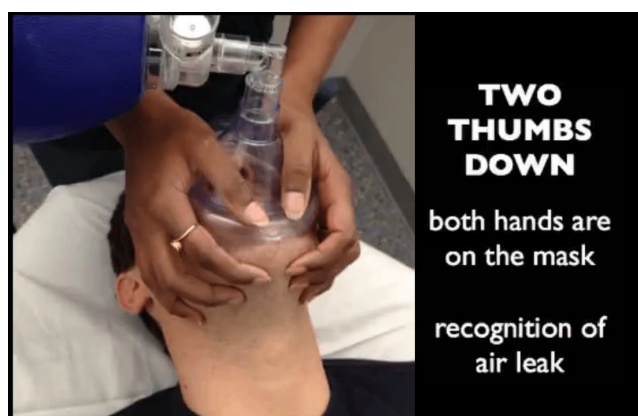
⇒ How to use a BVM

N.B. Consider PPE level required for any resuscitation / first aid

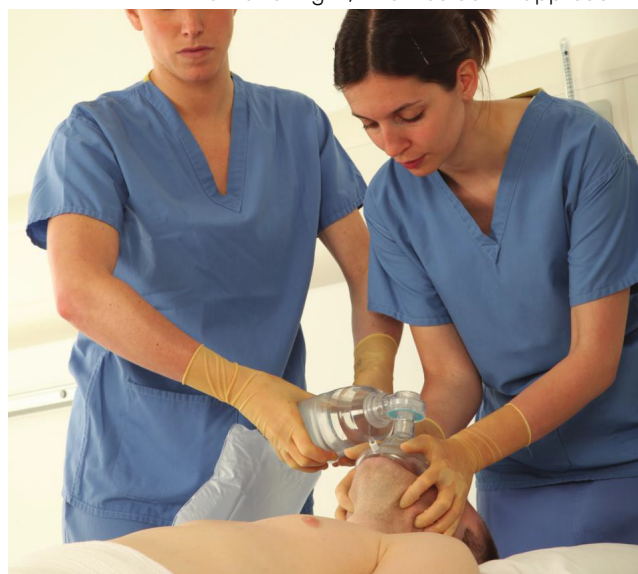
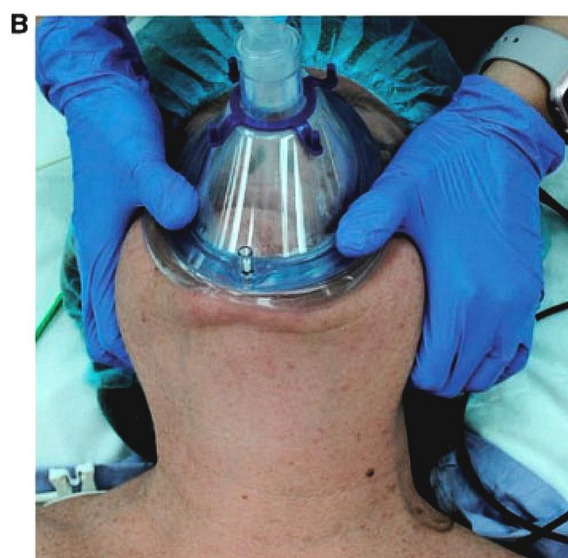
1. While waiting for the BVM to arrive from the lifeguard station, **resuscitation can be continued** either compression only CPR, or with a pocket mask (with viral filter attached)
2. Before using the BVM, **attach the viral filter** and **determine what size face mask** to use. Face masks are judged on the size of the patient; generally, there would be large/regular adult, small adult, child. **Attach oxygen** (if available) and set to 15 litres per minute
3. When you have chosen the correct mask size, **position the mask as shown below**. With your thumbs, you are pushing the mask down onto the patient's face. With your fingers under the jaw, you are providing the chin lift up towards the mask
4. The second rescuer can now **squeeze the bag** to provide a "breath". This can be done in the usual ratio 30:2 (compressions to breaths). The bag need only be squeezed enough to provide chest rise, it does not need to be fully squeezed (for your average adult, half the bag will cause chest rise).

Note: The lifeguard that is holding the face mask on the patient, should hold this position throughout compressions. Lifeguard #2 will squeeze the bag, and then perform compressions/use the AED. Of course, if the AED is delivering a shock, Lifeguard #1 should remove themselves from the patient prior to the shock delivery.

By keeping the mask on the patients face throughout CPR, this keeps a good position ready to use for the next breaths cycle. Also, by keeping the mask in place, it reduces any cross-contamination risk, as the mask is "catching" any patient secretions.



Left and Right; Thumbs down approach



2 person BVM Technique



Various sizes of facemask for attaching to BVM