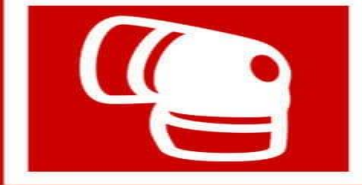
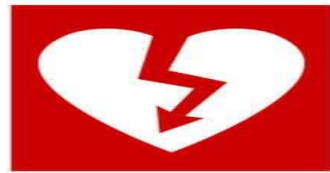




First Aid



ADVANCED TOPICS



**.1ANIMAL BITES (RABIES , SNAKES ,
SPIDERS & SCORPIONS , TICK (**

.2EXTENDED ASSESSMENT (JACCOL (

.3AIRWAY MANAGEMENT

Animal bites



Rabies is a deadly virus spread to people from the saliva of infected animals. The rabies virus is usually transmitted through a bite.

Animals most likely to transmit rabies include bats, foxes, and stray dogs





- There may be also discomfort or itching sensation at the site of the bite.
- The first symptoms of rabies may be very similar to those of the flu including general weakness or discomfort, fever, or headache. These symptoms may last for days.



- Once a person begins showing signs and symptoms of rabies, the disease nearly always causes death (inflammation of the brain and spinal cord). For this reason, anyone who may have a risk of contracting rabies should receive rabies vaccinations for protection.

Snakes



- **Crotalid** (rattlesnake {pit-viper : ({
venoms cause the bitten area to turn green or purple.



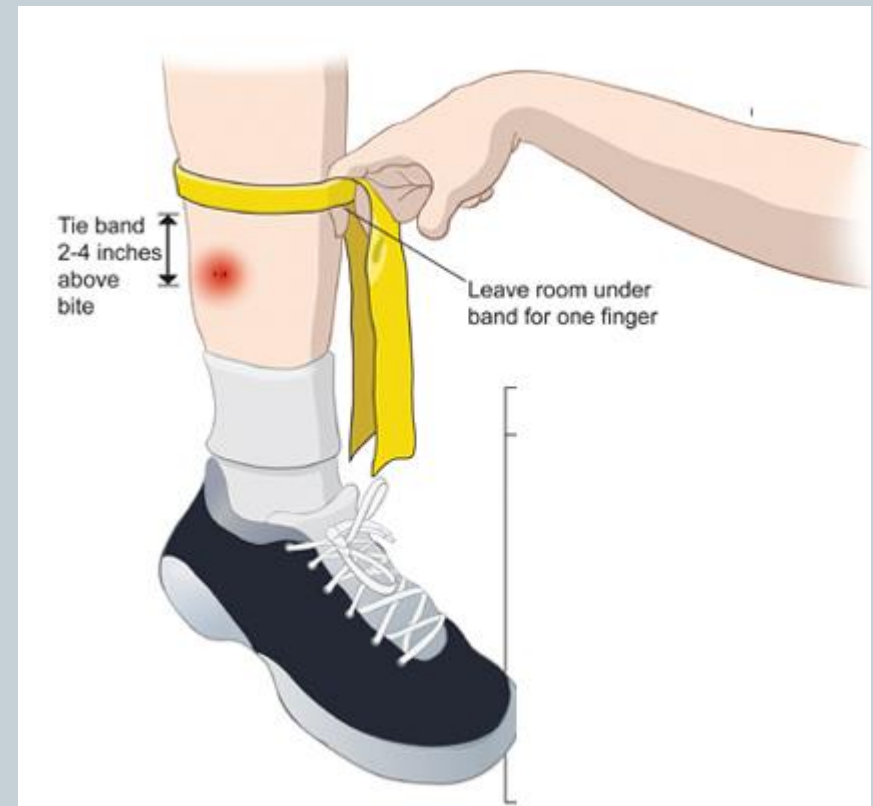
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- **Elapid** (coral and cobra) : venoms cause swollen lymph nodes.





- **Treatment for snakebites:**
- Call for emergency help right away if someone has been bitten by a snake. Responding quickly in this type of emergency is crucial. While waiting for emergency help:
 - Wash the bite with soap and water.
 - Keep the bitten area still and lower than the heart.
 - Cover the area with a clean, moist dressing to ease swelling and discomfort.
 - Monitor breathing and heart rate.

- If a victim is unable to reach medical care within 30 minutes, a bandage, wrapped two to four inches above the bite, may help slow venom .
- The bandage should not cut off blood flow from a vein or artery .
- A good **rule of thumb** is to make the band loose enough that a finger can slip under it.





FIRST AID FOR SNAKE BITE

What to do when bitten by a snake

30 min

DO'S



Call medical help immediately



Do not cut bite site. Clean wound and apply pressure bandage to bitten limb



Restrict movement



Transport quickly to the nearest hospital that can deliver emergency care, anti-tetanus, and antivenom

DONT'S



Do not try to suck out venom



Do not apply tourniquet that can impede blood circulation



Do not elevate the wound above the heart or chest level



No aspirin, pain relievers, or traditional remedies

TIME IS CRITICAL: 30 MINUTES

Spiders & Scorpions



Spider bites:

Most spider bites cause only minor injury. A few spiders can be dangerous, these include the black widow spider and the brown recluse spider.



○

- **Black widow spider :**

- You can usually identify a black widow spider by the hourglass marking on its belly.
- The black widow spider makes a venom that affects the **nervous** system which can lead to death .





- **Brown recluse spider :**

- The Brown recluse spider makes a venom that affects the cells and tissues causing **amputation of a limb**

-





- Treatment of spider bites is identical to that of a snake-bites.

Scorpion sting:

- **Scorpion stings cause instant, sharp pain** at the site of envenomation .
- **Localized** edema and pruritus are **common**.



-Treatment is identical to that of a snake-bite.

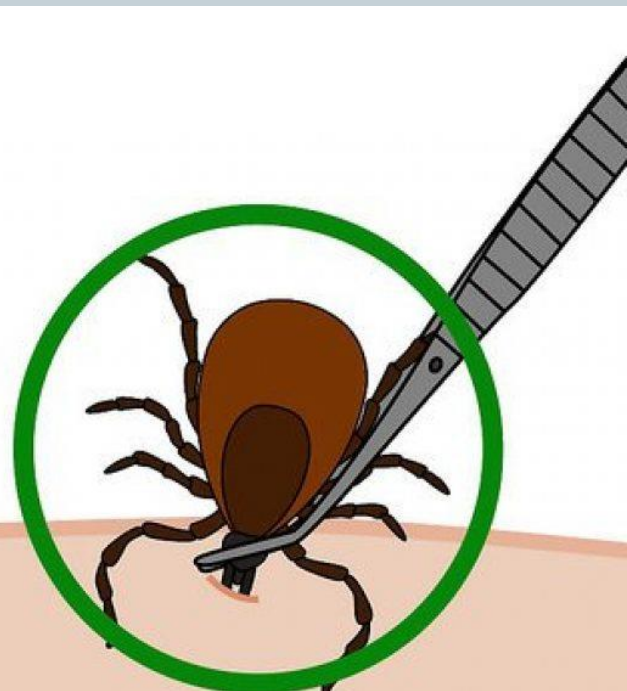
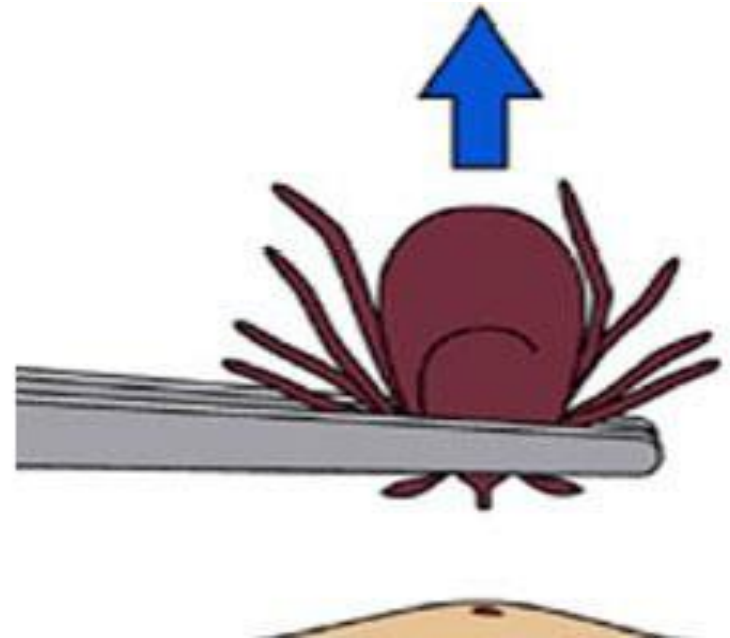
Tick Removal



- Lyme disease is the most common tick-borne disease.
- If you find a tick attached to your skin, there's no need to panic—the key is to remove the tick as soon as possible .



- **How to remove a tick:**
- Use tweezers to grasp the tick firmly at its head or mouth, as close to the skin's surface as possible.
- Pull upward with steady, even pressure. Do not twist the tick or rock it from side to side; this can cause the mouth-parts to break off and remain in the skin .
- After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol or soap and water.



Extended Assessment



Checking for underlying causes

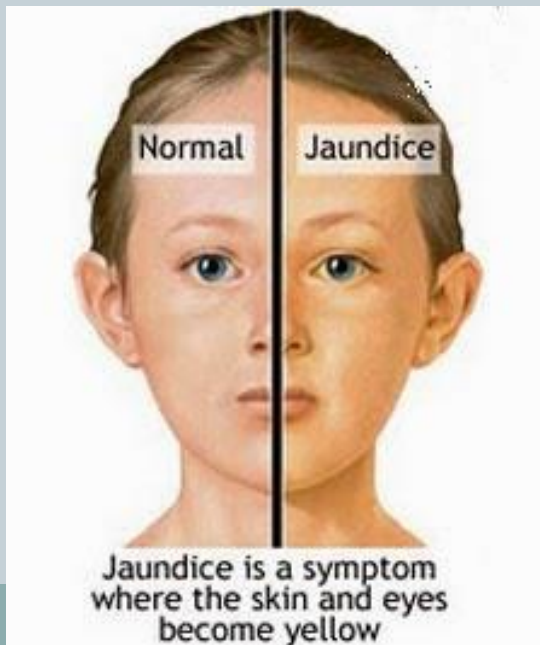
While waiting for professional help to arrive with a patient who is sick or injured, you can check a number of things which may indicate the cause of an illness.

This information should then be given to the ambulance crew or doctor to speed up their diagnosis .

The key things to look for can be summarized in the mnemonic JACCOL, which stands for:



J aundice: Jaundice is a condition in which the skin, sclera (whites of the eyes) and mucous membranes turn yellow, can be detected by examining the sclera, or underneath the tongue.



-
- **A nemia:** Anemia is the lack of iron in the blood, and it causes pallor also under the eyelids, but possible also around the gums. Look for this at the same time as jaundice.



Figure 1. Pallor of the conjunctiva.



Cyanosis: Cyanosis is defined as a bluish discoloration, It's usually caused by low oxygen levels in the blood .

Cyanosis is divided into two main types: central (around the lips, and tongue) and peripheral (only the fingers and toes.)

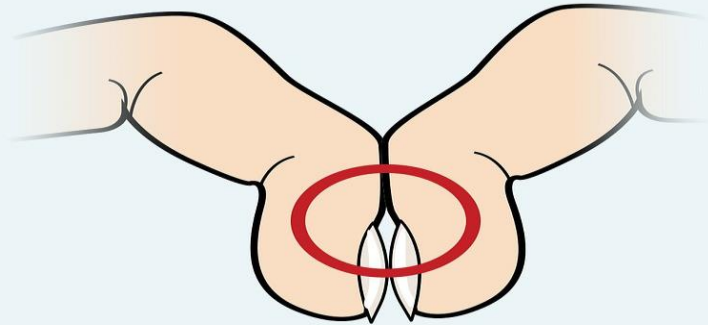




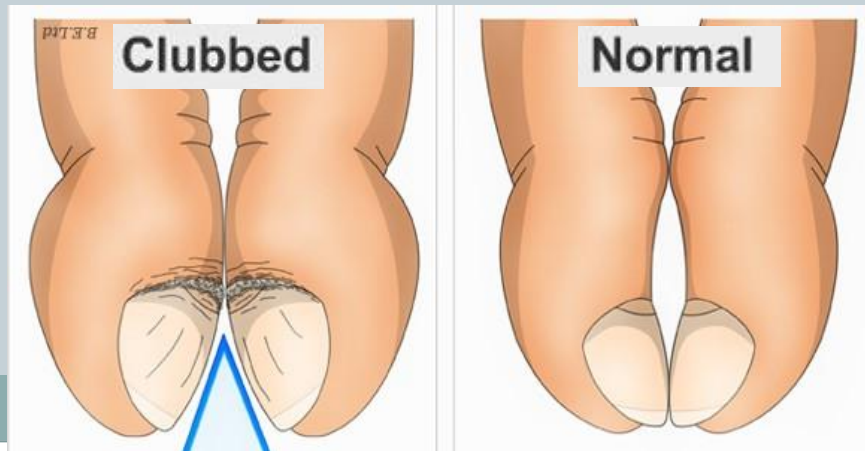
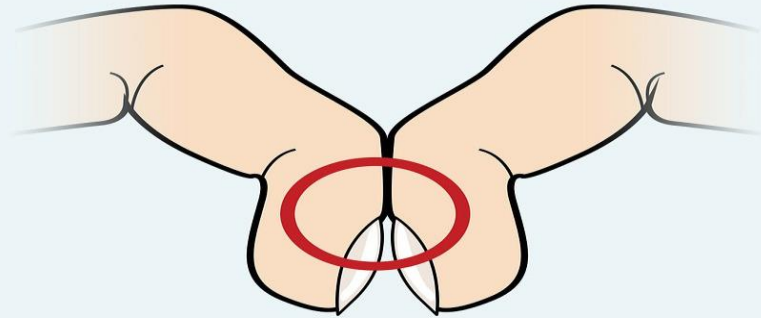
- **C lubbing:** **Nail clubbing**, also known as **digital clubbing** or **clubbing**, is a deformity of the finger nails associated with a number of diseases, mostly of the heart and lungs.
- The test for this is simple. Ask the patient to place the fingernails of their right and left index fingers together (flat against each other, facing the same direction). If you can see a gap (diamond shaped) between the fingers then everything is normal. If their fingernails and fingers form a flat interface, then there is clubbing.

THE SCHAMROTH WINDOW TEST

NORMAL



CLUBBED



O edema: “Oedema” is the medical term for swelling, usually seen in the lower legs.

You can detect oedema by gently pressing it with a finger. If your finger leaves a dent, then there is oedaema.



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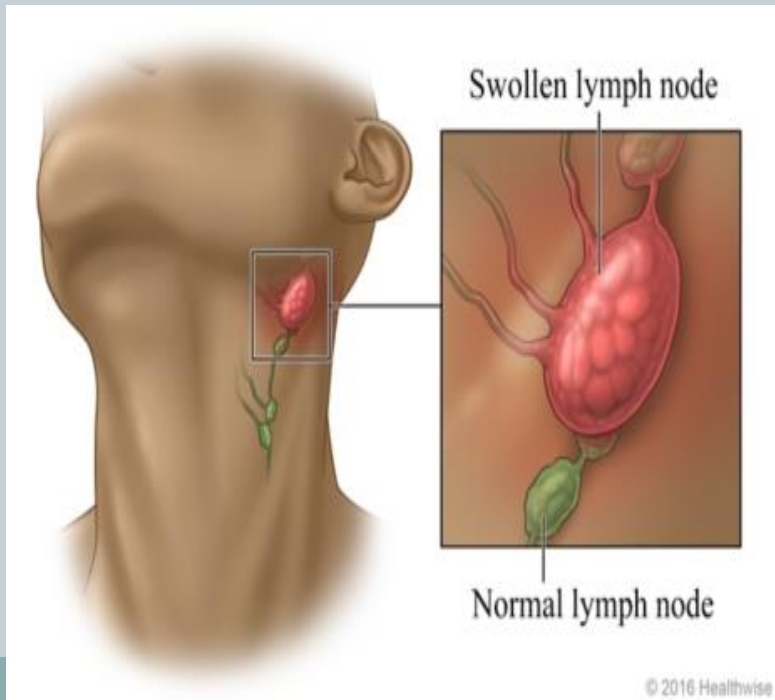
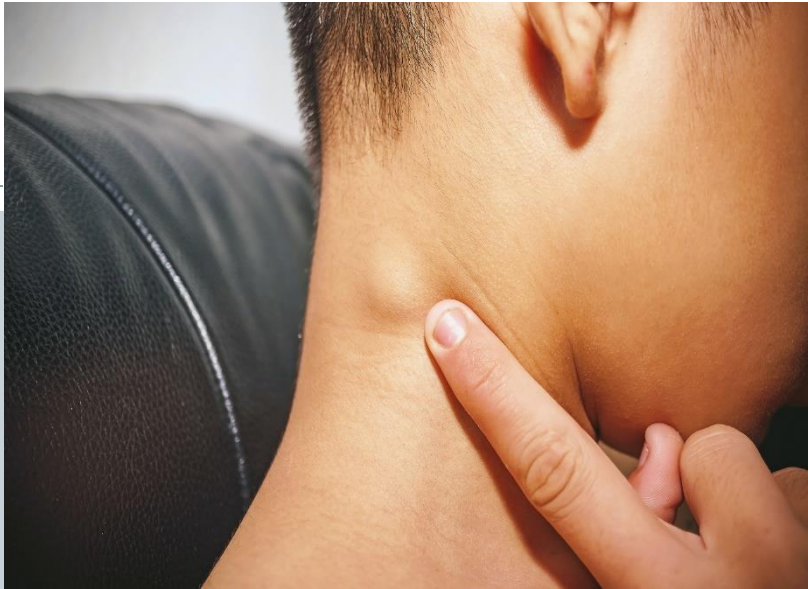
Edema in foot and ankle

Swelling of the foot, ankle and leg can be severe enough to leave an indentation (pit) when you press on the area. This swelling (edema) is the result of excess fluid in your tissues



Lymph nodes:

- **Lymph nodes** (or **lymph glands**) are part of the body's immune system. They filter lymphatic fluid, which is composed of fluid and waste products
- They become swollen in response to infection and tumors.
- Common areas where you might notice swollen lymph nodes include neck, under chin, in armpits and in groin.



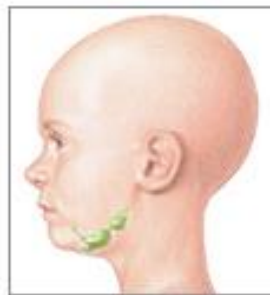
Axilla



Groin



Neck



Three areas where swollen glands occur

Airway Management



Airway management is the process of ensuring that

1. There is an open pathway for gas exchange between a patient's lungs and the atmosphere.



Head tilt/Chin lift

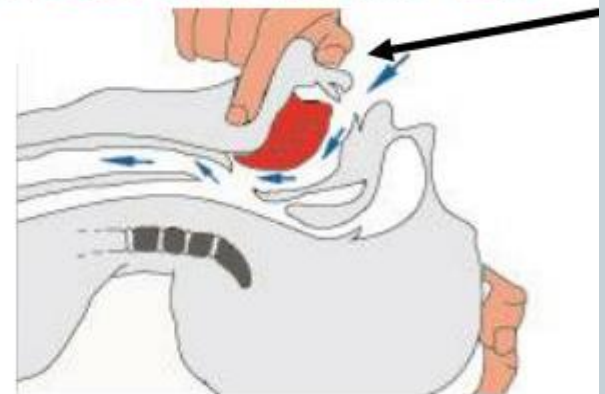
The simplest (and most reliable) way of ensuring an open airway in an unconscious patient is to use a head tilt chin lift technique, thereby lifting the tongue from the back of the throat.



Tongue blocking airway



Clear airway (Backward head tilt & Chin Lift)



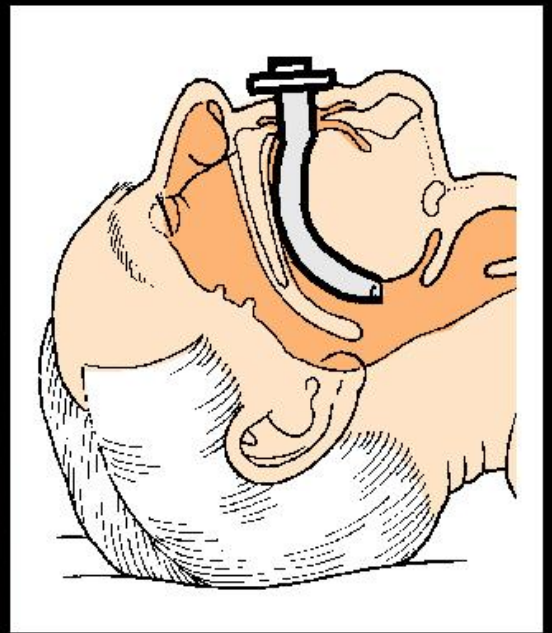
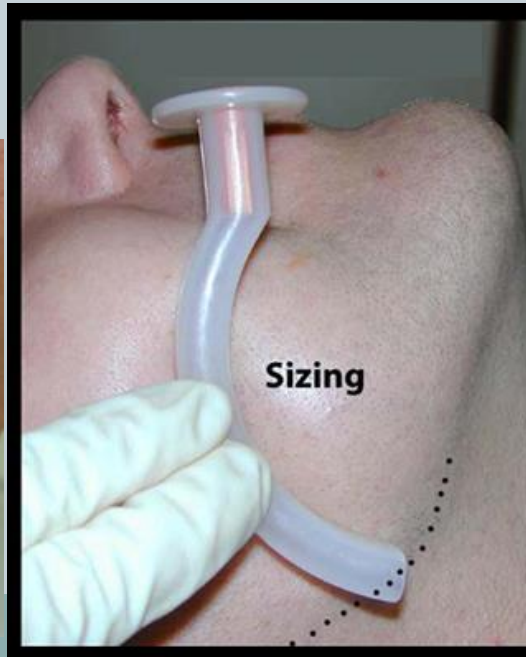
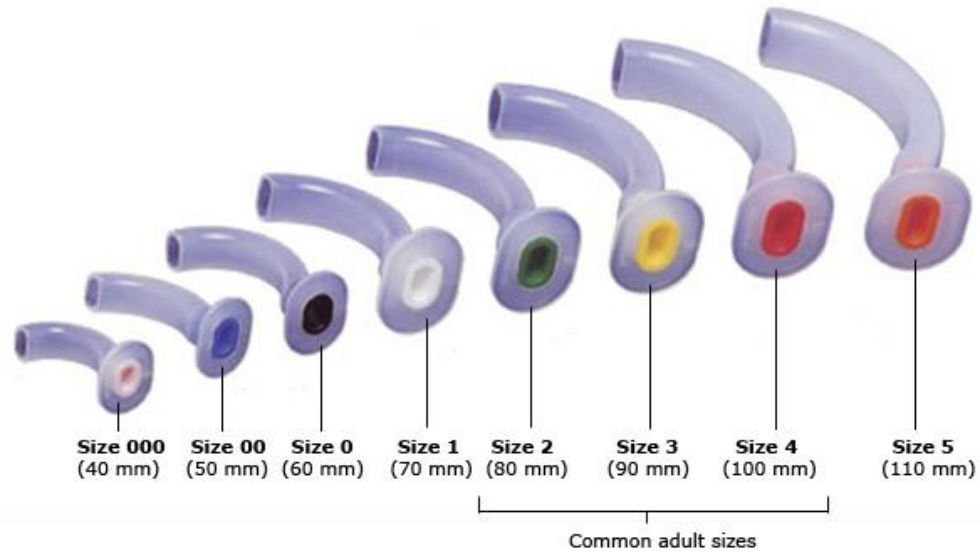
Oral Airways



An **oropharyngeal airway** (oral **airway**, OPA) is an **airway** adjunct **used to** maintain an open **airway** by stopping the tongue from blocking the airway .

When these airways are inserted properly, the rescuer does not need to manually open the airway.

It is only possible to insert an oral airway when the patient is completely unconscious or does not have a gag reflex. If the patient begins to gag after inserting the oral airway, remove it immediately.



Bag- Valve- Mask (BVM)

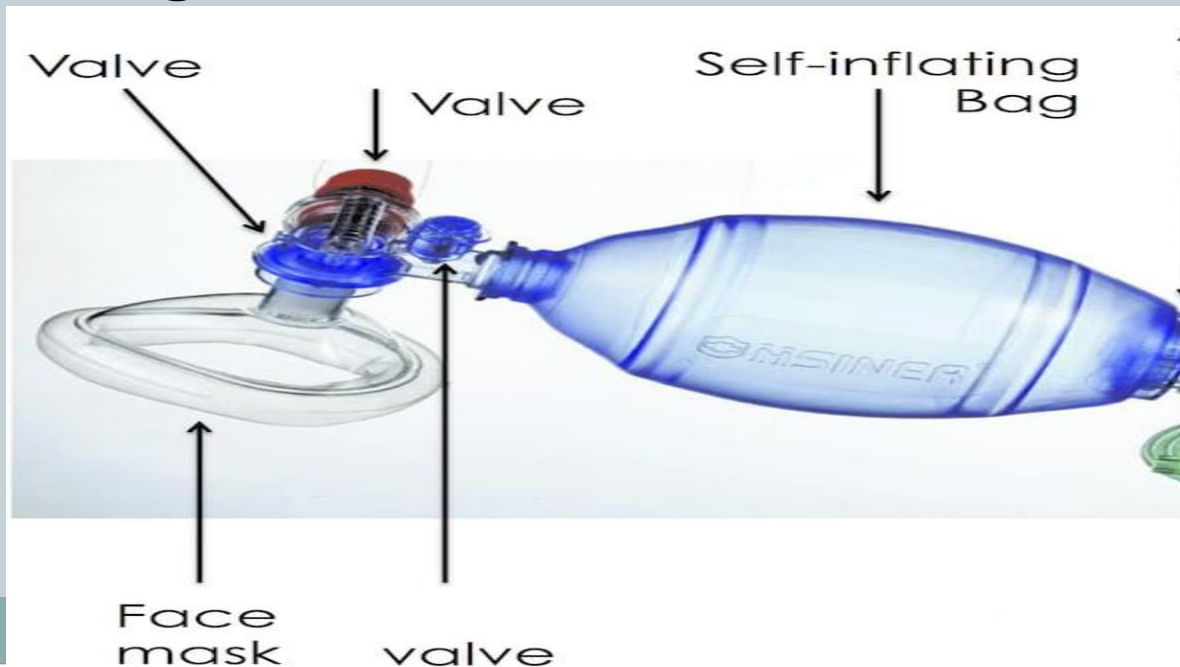


A bag valve mask (also known as a BVM or Ambu bag “artificial manual breathing unit” , which is a brand name) is a hand-held device used to provide ventilation to patients who are not breathing or are not breathing adequately.

The device is self-filling with air

Components

The BVM consists of a flexible air chamber, about the size of an American football, attached to a face mask via a shutter valve. When the air chamber or "bag" is squeezed, the device forces air into the victim's lungs; when the bag is released, it self-inflates ,



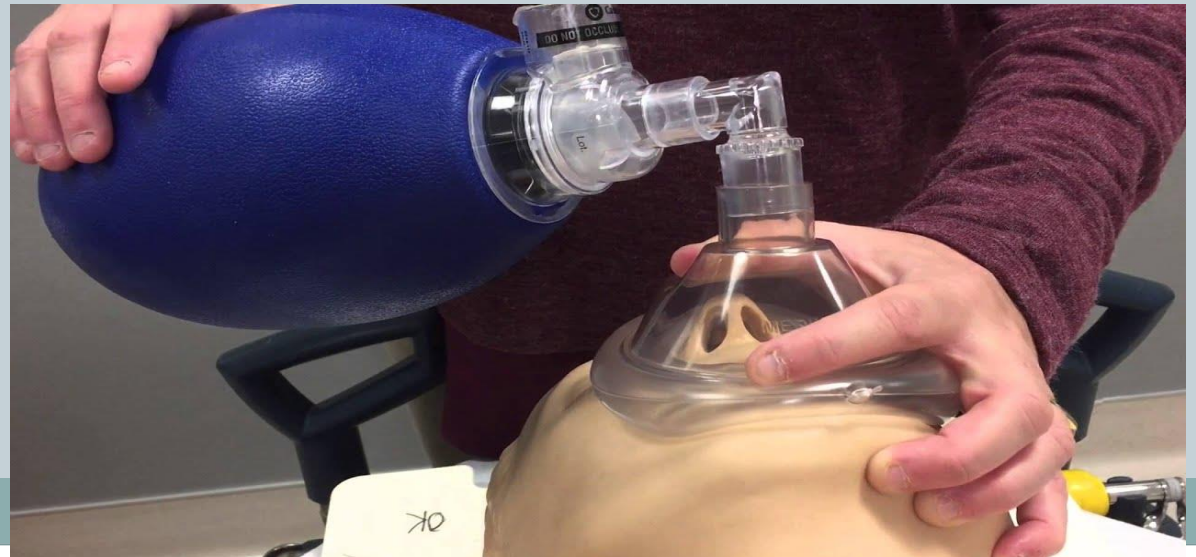
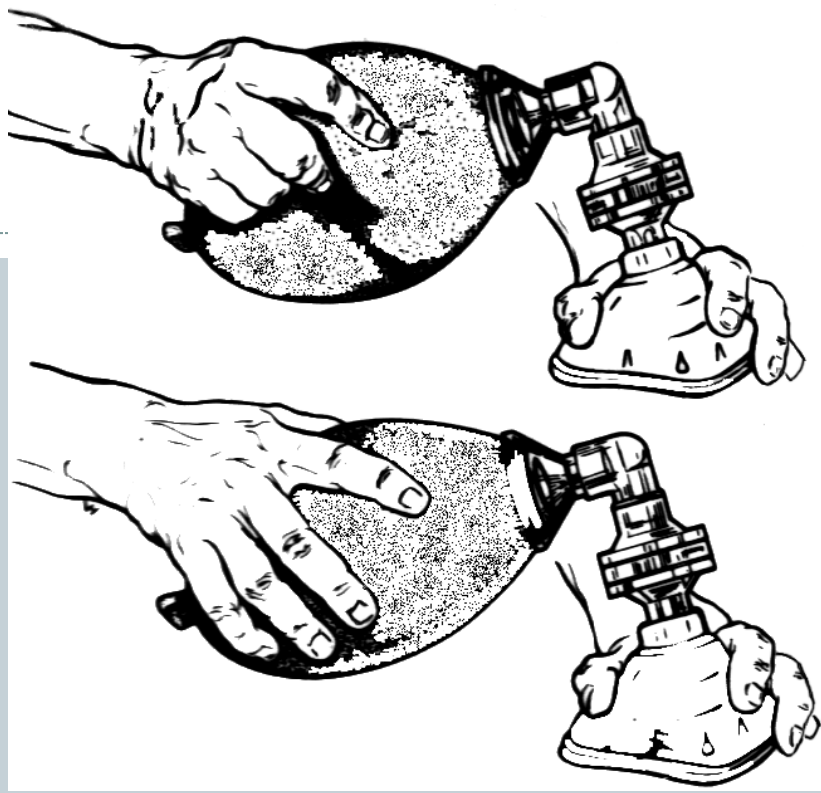
Use



The BVM directs the gas inside it via a one-way valve when compressed by a rescuer; the gas is then delivered through a mask and into the victim's airway and into the lungs. Squeezing the bag once every 5 seconds for an adult provides an adequate respiratory rate (12 respirations per minute in an adult.)



Professional rescuers are taught to ensure that the mask portion of the BVM is properly sealed around the patient's face (that is, to ensure proper "mask seal"); otherwise, air escapes from the mask and is not pushed into the lungs. In order to maintain this seal, some protocols use a method of ventilation involving two rescuers: one rescuer to hold the mask to the patient's face with both hands and ensure a mask seal, while the other squeezes the bag. However, to make better use of available rescuers, the BVM can be operated by a single rescuer who holds the mask to the victim's face with one hand (using a C-grip), and squeezes the bag with the other.



Suction Devices



In the case of a victim who vomits or has other secretions (blood, saliva) in the airway .

Suitably trained first aiders may use suction to clean out the airway so that a patient may breathe .



Suctioning can prevent pulmonary aspiration.



Thank you!