

Artificial Respiration.

In Respiratory Arrest, Artificial ventilation is given to the subject till normal rhythmic Respiration is restored. Brain cannot survive long in the Absence of O_2 supply. Hence there is a need of giving Artificial ventilation immediately in severe Respiratory deficiency or Respiratory Arrest.

METHOD OF ARTIFICIAL VENTILATION:

Two types of Artificial ventilatory methods are practiced.

Instrumental (Mechanical) Methods.

When Artificial ventilation is required for longer period instrumental method are used. There are two type of mechanical methods.

positive pressure and negative pressure methods.

Positive Pressure Method:

This is usually used in operation theatres during surgery.

⇒ In this method, the lung is inflated by pumping air or air O_2 mixture at positive pressure.

⇒ The disadvantage is that it impairs venous Return.

Negative Pressure Method.

Some of negative pressure methods are:

- ① Drinker's method.
- ② Bagg Paul method.
- ③ Other method using Boyle's Apparatus.

Drinker's Method:

Iron lung chamber Method: The apparatus consists of an airtight chamber and the pressure inside the chamber is alternately reduced and increased.

- The patient is placed inside the chamber with his neck and head outside.
- ⇒ When the pressure inside is increased, expiration takes place due to compression and when the pressure is reduced below atmospheric pressure, inspiration takes place.

Bragg Paul Method:

This consists of a hollow elastic rubber bag, which is wrapped round the chest. When a pump inflates the bag, the chest is compressed and air is expelled out.

Boyle's Apparatus:

It is a device for giving artificial ventilation. This is an automatic instrument in which rate and depth of ventilation and composition of air inhaled can be varied.

Manual Method:

Hotze - Neilson method (back pressure & arm lift method)
mouth to mouth breathing are usually practiced.