



Home use Mechanical Ventilators

Since home use positive pressure mechanical ventilators appeared in 1970's, the market has showed more variety of ventilators, multi-function, friendly use, specific sophisticated ventilator modes as a feature of their products. Those machines helped many patients avoid hospitalizations or being cared for in long term nursing homes.

We deliver a simple statement about home use mechanical ventilators.

What is a home use mechanical ventilator?

A home use mechanical ventilator is a device to support patients' breathing who can't breathe efficiently by themselves for long term use at home.

Who needs a home mechanical ventilator?

In general home mechanical ventilators are used for chronic respiratory failure (chronic low oxygen or high carbon dioxide) for example, sleep apnea, obesity, chronic obstructive pulmonary disease (COPD), neurological disorder such as ALS-Amyotrophic Lateral Sclerosis and muscular dystrophy.

How does a home use mechanical ventilator work?

A home mechanical ventilator delivers positive pressure to airway and inflate the lung unlike the natural mechanism of breathing by our diaphragm generating negative pressure and air gushes into the airway. It helps the person's ventilation and oxygenation for better gas exchange. The ventilator is connected to a tracheostomy tube (Figure 1) via respiratory circuit which is called invasive mechanical ventilation. Or it connects to a tight-fitting mask to nose and mouth (Figure 2) which is called non-invasive mechanical ventilation. Home use mechanical ventilator is relatively compact and friendly to learn and use.

What is other equipment needed for home use mechanical ventilators?

Dry or heated (more moisture) respiratory circuit, tracheostomy tube or mask, oxygen tanks or concentrators might be needed.

How does the process proceed to obtain a home use mechanical ventilator?

Physician orders a home use ventilator including prescription of ventilator mode, setting, and oxygen amount and coordinates with home care company. A home care company goes through the information of the patient; their caregivers, available financial resources, etc. and evaluates the home environment as well.

How is a mechanical ventilator is taken care of?

The home care company and visiting respiratory therapists give training on how to use, instruction for maintenance of ventilator and instructions about troubleshooting, how to deal with emergency. In addition, a clinician (mechanical ventilator expert) visits and checks the ventilator constantly.

Overall the medical team including physician, nurse, respiratory therapist, case manager, home care company support patients and their families to select the ideal mechanical ventilator according to their condition and keep monitor the patients and the equipment.

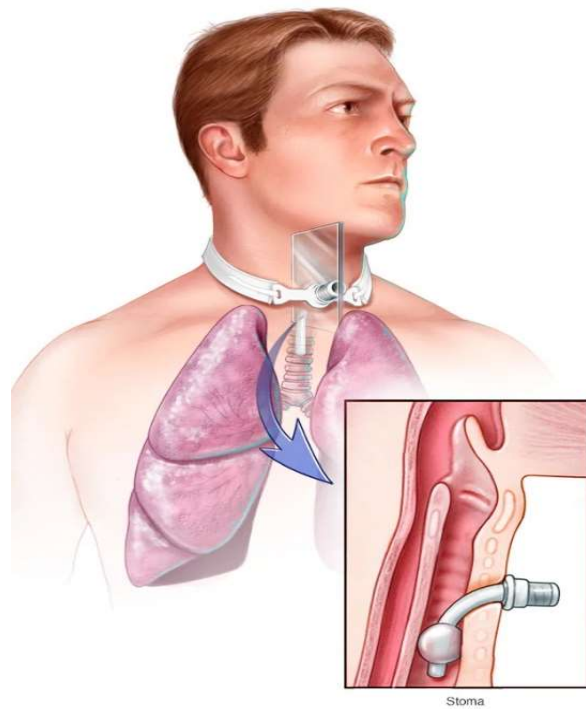


Figure 1: Tracheostomy tube up the neck



Figure 2: Non-Invasive masks applied to the face