

# Health Facts for you

## **Ventilators**

Your family member or friend has been placed on a ventilator. This can be scary. It helps to know why ventilators are used and how they help people to get better. The purpose of this handout is to give you the basics about ventilators and to answer common questions.

#### What will I see?

The patient may have a plastic breathing tube coming from the nose or mouth. This is called an endotracheal tube or ET tube. A tube may be placed through an opening directly into the throat. This is called a tracheostomy. In either case, the tube goes down the throat, between the vocal cords and into the large airway of the lungs. The breathing tube is connected to a hose. These hoses connect to a ventilator. It is a large, square machine that makes a soft, rhythmic noise as it gives each breath. Small lights may flash, and numbers will be displayed as the person breathes.

#### Why is a ventilator needed?

In most cases, the ventilator is used to help a person breathe, while other problems or illnesses are corrected. For instance, burns to the mouth and throat may cause swelling severe enough to close off the breathing airways. A breathing tube keeps the airway open. After surgery, sometimes people need help breathing until their anesthetic wears off. Lung diseases, infections, severe injury or illness can increase the workload of breathing. The ventilator takes this work away, leaving the person more energy for healing.

### Why can't the person talk?

To talk, air must pass between the vocal cords. When the person breathes, all the air goes through the tube, not passing the vocal cords at all. The person may be able to mouth words, but no sound will come out.

This can be frustrating if the person wants to talk to you. Have the person write notes or ask simple "yes and no" questions that can be answered by nodding or shaking the head. Ask the health care team to help. Even though the person can't talk to you, you should still talk to them. The reassuring voice of someone close can be the best medicine for the mind. Let the person know that when the tube comes out he or she will be able to talk again.

#### Is it painful?

A breathing tube may be uncomfortable and can make some people anxious. People can get medicines to help them relax. After a while, most people become used to the tube. Moving or pulling the breathing tube will only slow healing.

#### How will the person eat?

People on ventilators cannot eat by mouth. This is because the breathing tube prevents them from swallowing. Most often a feeding tube is placed in the nose or mouth. If this can't be done, the person may be fed through the veins. Once the breathing tube is out, they can return to eating by mouth.

#### How does suctioning work?

Normally, when a person coughs, secretions are brought up to the back of the mouth and either swallowed or spit out. With a breathing tube in place, normal coughing cannot occur. To keep the breathing tube clear, a small tube is placed in the breathing tube. Secretions are sucked out. This is called suctioning.

The staff will listen to the person's lungs often to see if suctioning is needed. You may be asked to step out of the room during this time.

# How do I know the ventilator is working properly?

Respiratory therapists work with the nurses and doctors 24 hours a day to make sure that the ventilator is working right. They will check the ventilator at least every four hours and adjust it as needed. Routine blood samples will also tell us how the person is doing while on the ventilator. We can adjust the settings on the machine as the person improves.

#### What if something goes wrong?

The ventilator has alarms that warn the medical team right away if something is wrong. The alarms are loud and make different sounds for different problems. The team knows which alarm needs instant checking.

Bags with oxygen are kept at the bedside so the staff can give the person breaths if needed. It is very rare for a ventilator to malfunction. Extra machines are kept within the hospital to be used as back-ups.

#### How does a person get off the ventilator?

Just as a baby is weaned from a bottle, a person is weaned from a ventilator. This may be a slow process—sometimes with backward steps. The final goal is to get the breathing tube out.

The nurse or respiratory therapist may refer to the weaning mode on the ventilator as pressure support. Pressure support is an ordered setting on the ventilator where the patient takes each breath on his or her own. Other ventilator settings give a set amount of breaths to the patient.

During weaning, the person is closely watched. If the person needs more help from the ventilator, it will be given. Because each person's condition is unique, weaning from the ventilator varies. As you can see, the ventilator is important to recovery. By decreasing the work, it takes to breathe, and by giving extra oxygen, the ventilator gives a person more energy for healing. The built-in alarm system helps to detect any problems. The staff is nearby to answer the alarms and reassure you. The ventilator plays a major part in bringing the person back to health as quickly as possible.

If you have questions or concerns, please talk with us. We are here to help you.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 6/2019. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#4437.