

# **Tracheostomy**

## **WHAT IS TRACHEOSTOMY?**

Tracheostomy is the name given to a procedure often carried out in the course of other surgery - to make an opening in the front of the windpipe. A curved tracheostomy tube is inserted into this opening to enable the patient to breathe. Although, in a planned procedure, tracheostomy is usually performed in the operating room (under general anesthesia), it may also have to be carried out in the emergency room, in a critical care facility, or in the patient's own room.

## **WHY IS IT PERFORMED?**

In ENT surgery, tracheostomy is performed to safeguard the airway in various situations: in patients undergoing extensive surgery to the mouth or face; where there is obstruction to the upper airway (due to trauma, foreign body, or disease); or in cases where the lining of the larynx (voice box) is swollen to the extent of interfering with breathing (edema of the larynx). Tracheostomy is also performed in patients likely to need mechanical ventilation (on a respirator) over a long period of time. In most cases the need for tracheostomy is only temporary. However, permanent tracheostomy is required in a minority of patients, including those undergoing laryngectomy (removal of the larynx).

## **RISKS AND BENEFITS**

Tracheostomy is a procedure designed to bypass the upper airway which is inadequate due to damage or disease. The creation of an opening (stoma) in the trachea ensures that vital oxygen continues to reach the lungs (by a shorter than normal route). In an emergency, of course, tracheostomy may be life-saving. In addition, tracheostomy makes it easier for nurses to suction out secretions (which would otherwise clog up the lungs) in patients who are unable to cough adequately to clear their own chests. Where long-term mechanical ventilation is needed, the use of a tracheostomy tube (rather than an endotracheal tube introduced through the mouth or nose) minimizes the risk of mechanical damage to the windpipe. The risks of the procedure include infection and bleeding at the tracheostomy site.

## **THE PROCEDURE**

Today tracheostomy is rarely done as an emergency procedure, so there should be ample time for explanation of what is involved. Most especially you should be warned that, with no air passing over the vocal cords, you will be unable to speak with a tracheostomy tube in place. Nursing staff will help you communicate as well as possible by other means.

## **IN THE OPERATING ROOM**

A small incision is made in the front of the neck, below the Adam's apple, and a vertical opening (stoma) is made in the windpipe. A tracheostomy tube is inserted in the opening. On the exterior, the flange of the tube is secured with tapes around the neck.

## **BACK IN YOUR ROOM**

A humidifying device may be attached to the tracheostomy tube to moisten the air you breathe in. Scrupulous attention is paid to the care of a tracheostomy, including frequent suctioning of secretions so that the tube does not become blocked; dressings at the site are changed regularly to prevent infection. In

most cases the tracheostomy is dispensed with as soon as possible, often by phased withdrawal; the original tube being replaced with progressively smaller ones to allow the stoma to close over naturally. In cases where permanent tracheostomy is necessary, the disposable tubes used in the hospital may be replaced by durable silver ones for home use. Before leaving the hospital you will be supplied with a suction pump and taught all aspects of tracheostomy care.

## **POSSIBLE COMPLICATIONS**

Despite rigorous tracheostomy care, complications are common. Most often seen are blockage of the tube with dried secretions (if humidification of breathed-in air is not adequate); and infection at the stoma site. Occasionally a tracheostomy tube becomes dislodged and may have to be repositioned. A longer-term complication following tracheostomy is stricture (narrowing) of the windpipe, which may require further surgery.