



## Intubation

Intubation is a medical procedure where doctors place a flexible plastic tube into a person's windpipe (trachea). This tube acts as a clear pathway for air to move in and out of the lungs.

When a person is too sick or injured to breathe effectively on their own, the tube is connected to a machine called a ventilator. You can think of the ventilator as an "external set of lungs" that does the work of breathing for the patient while their body recovers.

### **Why is it needed?**

Usually but not limited to one of three main reasons:

- **Airway Protection:** If a patient is unconscious, they might lose the ability to keep their airway open.
- **Respiratory Failure:** The lungs are too tired or damaged (from pneumonia, COVID-19, or fluid) to get enough oxygen into the blood.
- **Surgery:** During major operations, general anesthesia makes a patient fall into a deep sleep where they stop breathing on their own.

### **What to Expect During the Procedure**

If the intubation is planned (like before surgery), the team will have time to explain it. In emergencies, they must act very quickly to ensure the patient gets oxygen.

- **Sedation:** Before the tube is inserted, the patient is given strong medicine to make them fall asleep and relax their muscles. They will not feel pain during the procedure.
- **The Tube:** The doctor uses a lighted tool to see the vocal cords and gently slides the tube through the mouth and into the windpipe.
- **Confirmation:** Once the tube is in, the team listens to the chest with a stethoscope and often takes a Chest X-ray to make sure the tube is sitting in the perfect spot.



## **Living with the Ventilator**

Seeing a loved one on a breathing machine can be startling. Here is what you will notice:

### **1. Appearance and Comfort**

The tube is usually taped to the patient's face or held by a plastic strap. Because the tube passes through the vocal cords, the patient cannot speak. Most patients are kept in a "medically induced sleep" so they don't feel the discomfort of the tube.

Restraints: Sometimes, soft "mitts" are placed on the patient's hands. This is a safety measure to prevent them from accidentally pulling the tube out if they wake up confused.

### **2. Noises and Alarms**

The ICU is a noisy place. You will hear beeps and alarms from different machines.

Don't panic at every alarm. Most beeps are just the machine noticing a cough or a slight change in breathing patterns. The nurses monitor these constantly from their station.

### **How long does it last?**

Intubation is meant to be a temporary bridge. It stays in place only as long as the underlying problem (like an infection or injury) is being treated.

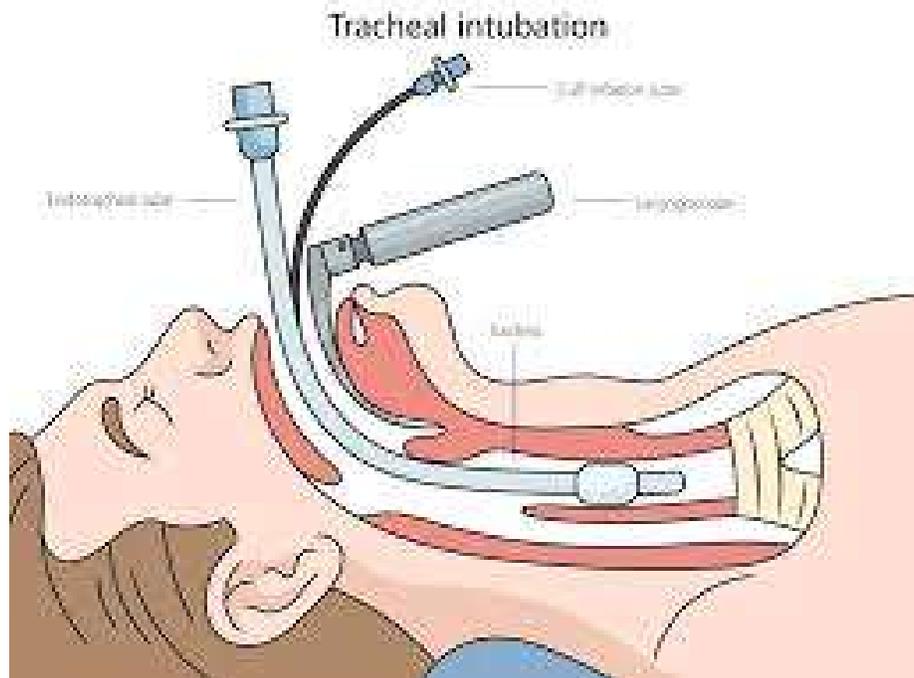
### **The "Weaning" Process**

Every day, the medical team performs a "Breathing Trial." They turn down the machine's settings to see if the patient can breathe on their own.

If the patient breathes well and is awake enough to cough, the tube is removed. This is called extubation.

If the patient remains sick and requires the ventilator usually after 10-14 days, a tracheostomy is usually performed (Please refer to Volume 4 – Issue 2, 2023 for more information about tracheostomy)

After the tube comes out, it is common to have a sore throat or a raspy voice for a few days.



Procedure of insertion of endotracheal tube using a laryngoscope