



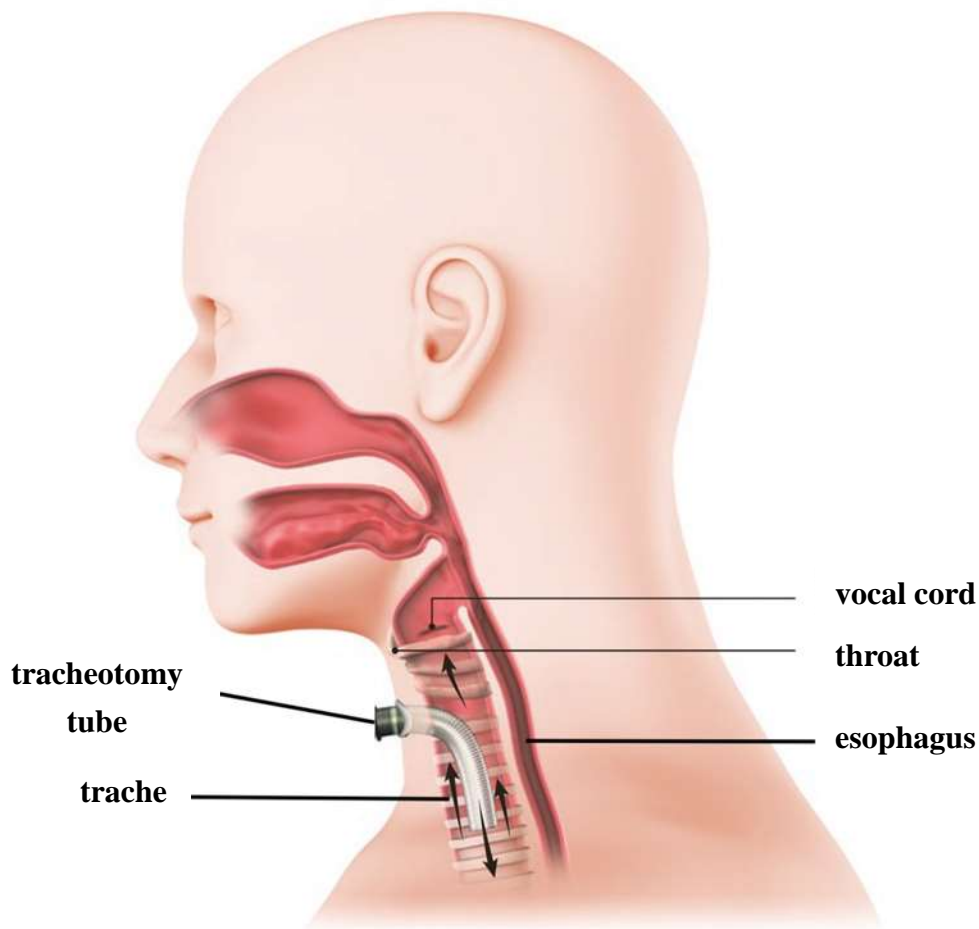
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Introduction of tracheostomy surgery for neurological patient



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All information above has been reviewed by Neurology specialists
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What is tracheotomy?

The length of the original endotracheal tube is long (as shown in Figure 1), and long-term placement is prone to complications. In tracheotomy, a surgical incision is made between the 2nd, 3rd, or 4th canal cartilage under the cricoid cartilage of the neck, and a silicon tracheotomy tube is placed (Figure 2).

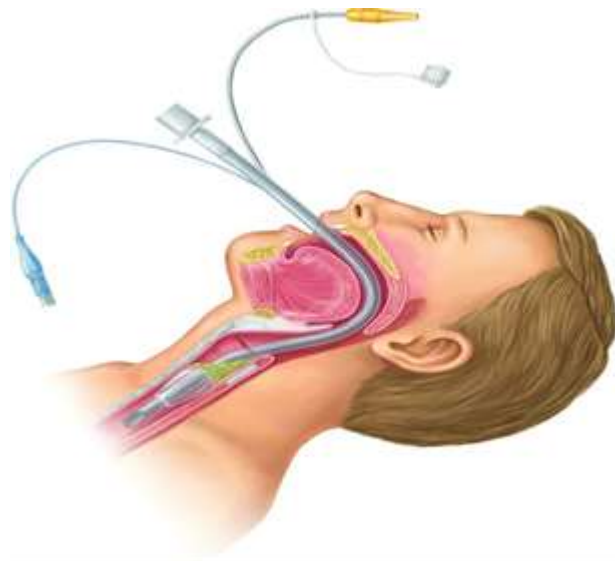


Figure 1. Endotracheal tube intubation

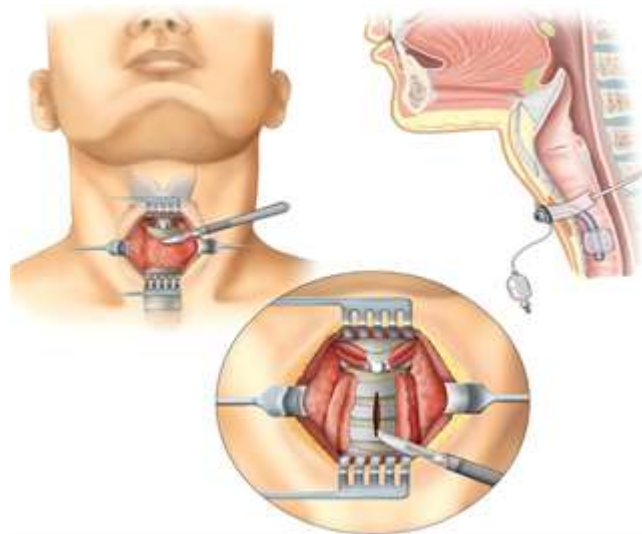


Figure 2. Anatomy of the tracheostomy tube

Which patients need tracheostomy ?

Patients with
indwelling
endotracheal tubes
for more than two
weeks

Major surgery on
trauma, face or neck
area

Inability or inability
to cough up phlegm
on your own

upper airway
obstruction



Inability to get out of
the endotracheal tube
requires long-term
respiration

Reasons that shift from” endotracheal tube” to “tracheostomy tube”

Intratracheal tube placement is a medical measure for patients with acute short-term respiratory failure. If used for too long (more than 14 days), the mucous membrane at the trachea will be necrotic due to tube compression, vocal cord damage or paralysis, tracheal stenosis, aspiration pneumonia, etc.

Tracheostomy is a small operation on the neck, inserting a small tracheostomy tube (as shown in Figure 3 and Figure 4) into the trachea, which can effectively remove respiratory secretions, facilitate the use of respirator, and increase patient comfort. It is a more convenient and safe option for long-term care of family members (see Figure 5).



Figure 3. Plastic trachea



Figure 4. Silicon trachea



Figure 5. Appearance of a tracheostomy patient

Preoperational preparation for tracheotomy

- (1) The procedure of the operation is explained by the attending physician.
- (2) Patient and family can watch tracheotomy video together.
- (3) Visit successful case of tracheotomy patient.
- (4) Fill consent of operation and anesthesia.

Complications of tracheotomy

Postoperative hemorrhage, pneumothorax, subcutaneous emphysema, tracheoesophageal fistula, vocal cord palsy, wound infection and proliferation of granulation tissue. However, these complications are uncommon.

Conclusion

Tracheostomy is just another way to replace the endotracheal tube. The purpose is to reduce the long-term placement of the tube to reduce the infection rate. If the condition is stable in the future, there is still a chance to wean off the ventilator and remove the tracheostomy.

Q & A

Q1: Can I talk after tracheostomy?

A1: Generally, after tracheostomy, no sound can be produced, but if the respirator can be removed in the future, the breathing and coughing function will be improved, as long as the air bag is released to let the air flow through the vocal cords, the sound can be produced, or it can be replaced with a sound-proof device after evaluation by the doctor. Sounding tracheostomy tube.

Q2: Can I eat by mouth after tracheostomy?

A2: Tracheostomy usually does not affect the swallowing function. At the beginning of the diet, the first way to eat is through a nasogastric tube. After the condition is stable, you can try to eat by mouth with the doctor's consent (Figure 6).



Figure 6. Tracheostomy patients eat by mouth

References

Ko, P. F., Chen, Y. H., Huang, H. M., Liu, T. Y., Chan, M. C., & Huang, Y. H.(2019). Improving the Awareness Rate of Tracheostomy in Family of Ventilator-Dependent Patients in the Intensive Care Unit. *Clarifyin the Journal of Healthcare Management*,15(3), 64-73.

Let's take a test to confirm that you have a thorough understanding.

1. Tracheostomy can effectively remove respiratory secretions and facilitate the use of respirators, and can increase patient comfort.
Yes No Have no idea
2. Tracheostomy involves placing a silicon tracheostomy tube between the 2nd, 3rd or 4th cartilage under the cricoid cartilage in the neck.
Yes No Have no idea
3. If the endotracheal tube is left in place for more than one week, tracheostomy can be recommended.
Yes No Have no idea
4. after tracheotomy surgery, you will be temporarily unable to make sounds. However, if you can be separated from the respirator in the future and your breathing and coughing functions improve, you can make sounds by releasing the air bag and allowing air to flow through the vocal cords.
Yes No Have no idea
5. Complications such as pneumothorax, subcutaneous emphysema, vocal cord paralysis, wound infection, and granulation tissue hyperplasia may occur after tracheostomy surgery.
Yes No Have no idea