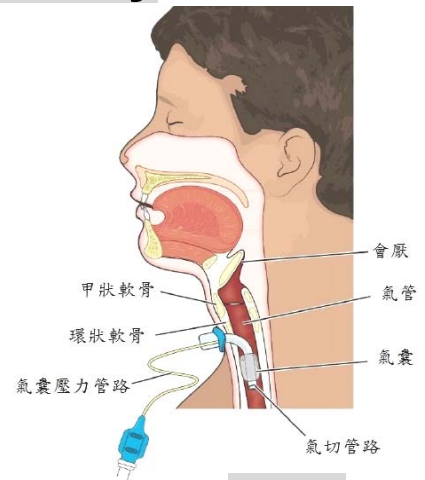


## 認識氣管造口(英文) Knowing About Tracheostomy

### 一、何謂氣管造口 (What is tracheostomy)

氣管造口是一種經外科手術，在氣管的第二至第四節氣管軟骨間，切開一個暫時性或永久性開口，接著放入一個通氣管（或稱氣切管）以提供病人呼吸及清除痰液的通道（如圖一）。

Tracheostomy is a surgical operation, creating a temporary or permanent opening between the second and fourth trachealis cartilage to place a ventilating tube (or known as tracheostomy tube) as a passage for patient's breath and removal of sputum (as shown in Figure 1).



圖一 Figure 1

醫師會依據病人狀況，於手術過程中選擇局部麻醉、靜脈注射麻醉或全身麻醉方式進行，手術過程約 30 分鐘，可於手術室或加護中心進行手術。

Based on patient's conditions, the physician may choose an approach during the operation from either local anesthesia, intravenous anesthesia or general anesthesia, taking about 30 minutes for the entire operation which may be performed in an operation room or ICU.

### 二、氣管造口的適應症 (Indications for a tracheostomy)

(一) 上呼吸道阻塞或呼吸機能不全者。

Patients with upper respiratory tract obstruction or respiratory insufficiency.

(二) 肺炎、支氣管擴張症等痰多的病人，或是因神經或結構問題，無法有效的咳嗽排除分泌物者。

Patients with much sputum resulted from pneumonia or bronchiectasis, or those who are incapable of effectively coughing to remove secretions due to neural or structural problems.

(三) 短期內無法拔除氣管內管之病人，如成人超過十天、小兒超過一個月。

Patients whose endotracheal tubes are unable to be removed in a shorter period of time, for example, more than ten days for adults and more than one month for children.

(四) 嚴重頭頸部外傷，嚴重燒傷、感染引起上呼吸道水腫，無法置入氣管內管者。

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Patients inappropriate for placement of endotracheal tubes due to severe trauma from the head or neck, upper respiratory tract edema resulted from severe burn and infection.

- (五) 嚴重、危及生命之睡眠呼吸終止症候群病人，其他治療方式無效者。  
Patients with severe and life-threatening sleep apnea syndrome, exhibiting no efficacy from other treatments.

### 三、氣管造口的優點(Advantages of tracheostomy)

- (一) 改善病人的通氣狀況，減少呼吸道阻力，提高病人脫離呼吸器使用的機率。  
Improve ventilation with reduced resistance from respiratory tract, enhancing probability for the patient to be free from using ventilator.
- (二) 相較氣管內管而言，使用氣管造口較容易移除痰液。  
It is easier for removal of sputum with tracheostomy compared to endotracheal tube.
- (三) 氣管造口更換氣切套管及固定較容易且安全。  
With tracheostomy, it is relatively easy and safe in replacing and fixing the tracheostomy tubes.
- (四) 使用氣管造口的病人，相較氣管內管病人，其口腔或鼻腔不會造成壓迫導致破皮或潰瘍，且因口腔或鼻腔無管路置放，容易維持清潔，降低口腔感染或併發吸入性肺炎的機會。  
Compared to patients with endotracheal tubes, there will be no any crack or ulcer in the mouth or nasal cavity resulted from compression with patients received tracheostomy; moreover, because there is no any tubing placed in the mouth or nasal cavity, it is easy to keep clean, reducing possibility of oral infection or complication of aspiration pneumonia.
- (五) 使用氣管造口的病人，因非經舌咽處置入，降低嘔吐反射，口腔分泌物較少，相較氣管內管病人，整體較為舒適。  
For patients received tracheostomy, because it is not placed through glossopharyngeal area, the vomiting reflex may be reduced with less oral secretions which would be essentially more comfortable compared to patients with endotracheal tubes.
- (六) 引發食道及氣管損傷機率較氣管內插管低。  
Lower probability to induce esophageal and tracheal damage compared to endotracheal tube.

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- (七) 使用氣管造口的病人，可以在發聲閥協助下言語，整體舒適度較好。  
Patients received tracheostomy may speak with the aid of speaking valve, generally feeling more comfortable.
- (八) 使用氣管造口的病人，可在訓練後，經由口腔進食，以維持腸胃道功能，並提高病人對自己身體改變的滿意度。  
After received training, patients received tracheostomy may have meals via oral cavity to maintain gastrointestinal functions, improving patient satisfaction with the change of their own bodies.
- (九) 使用氣管造口的病人，臉部皮膚不會因膠布反覆黏貼固定管路而導致皮膚受。固定方式以一到兩根手指頭的寬度測量氣切固定帶鬆緊度，以減少氣管造口周圍皮膚損傷。  
Facial skin of patients received tracheostomy would not be damaged resulted from repeatedly fixing the tubing with tapes. When fixing the tubing, measure the tightness of tracheostomy fixing belt by using the width of one or two fingers to minimize the damaged skin surrounding tracheostomy site.
- (十) 若病人病況進步到不需要使用呼吸器，在醫師評估下、已不需要氣管造口時，有機會可移除氣切管，喉部氣切傷口會自然癒合。  
When a ventilator is not required due to patient's improved conditions, if the tracheostomy site is no longer necessary based on physician's assessment, the tracheostomy wound in the neck would be naturally healed up after the possible removal of tracheostomy tube.

#### 四、氣管造口的風險及併發症 (Risks and complications from tracheostomy)

氣管造口手術傷口約  $2 \times 2 \text{cm}^2$  大小，剛開始的前三天傷口會有輕微疼痛感，可使用止痛藥物減少疼痛不適，約 14 天傷口拆線。手術併發症的機率甚低，常見的併發症包括：

The wound for tracheostomy is about  $2 \times 2 \text{cm}^2$  in size, mildly painful sensation may occur in the wound within the first three days, analgesics are recommended to be used for relief of painful discomfort, and removing stitches from the wound will be performed in roughly 14 days.

Probability for surgical complications has been very low, common complications may include:

##### (一) 短期影響 (Short-term affection)

1. 手術初期，造口傷口位置有滲血問題，皮膚周圍損傷。

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Early postoperative bleeding from opening wound site, with damaged skin in surrounding area.

2. 傷口感染。  
Wound infection.
3. 皮下氣腫或氣胸。  
Subcutaneous emphysema or pneumothorax.

## (二) 長期影響 (Long-term affection)

1. 黏液阻塞氣管造口管。  
Obstructed tracheostomy tube by mucilage.
2. 管路未固定妥當或病人躁動，導致氣切管移位或滑出。  
The dislocated or slipped-off tracheostomy tube due to improperly fixed tubing or patient's restlessness.
3. 肉芽組織增生導致氣管狹窄。  
Tracheal stenosis resulted from proliferation in the granulation tissue.
4. 氣管軟化：構成氣管的軟骨或內膜結構軟化，無法撐起氣道而導致氣管塌陷。  
Tracheomalacia: the structure of component cartilage or inner membrane becomes soft such that the trachea collapses due to the unsupported airway.
5. 氣管食道瘻管：食道與氣管間，出現一個或多個異常通道，導致食物由瘻管進到肺部、造成吸入性肺炎，或是由氣管吸入的空氣不斷進入胃，導致腹脹。  
Tracheoesophageal fistula: an abnormal connection in one or more places between the esophagus and the trachea that leads to food entering the lungs through the fistula resulting in aspiration pneumonia, or abdominal distention caused by the inspired air from the trachea continuously entering the stomach.

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### 護理指導評值 (Nursing guidance evaluation)

#### ◎是非題 (True or false)

- ( ) 氣管造口是一種經外科手術，切開一個暫時性或永久性開口，接著放入一個通氣管（或稱氣切管）以提供病人呼吸及清除痰液的通道？  
Tracheostomy is a surgical operation, creating a temporary or permanent opening to place a ventilating tube (or known as tracheostomy tube) as a passage for patient's breath and removal of sputum?
- ( ) 氣管造口術後前三天傷口會有輕微疼痛感，但不可使用止痛藥減少疼痛？  
Mildly painful sensation may occur in the wound within the first three days after tracheostomy, but analgesics are not allowed for pain relief?
- ( ) 使用氣管造口的病人，相較氣管內管病人，整體較為舒適？  
Compared to patients using endotracheal tubes, the patients undergo tracheostomy feel more comfortable overall?

#### ◎選擇題 (Multiple choice)

- ( ) 以下何者不是氣管造口的適應症？  
(1)痰多無法有效的咳嗽排除分泌物者；(2)短期內無法拔除氣管內管之病人；(3)嚴重頭頸部外傷，嚴重燒傷，無法置入氣管內管者；(4)可自主呼吸、無呼吸費力或痰多之病人。  
Which of the follows is not the indication for tracheostomy?  
(1)#patient with much sputum who is incapable of effectively coughing to remove secretions; (2)#patient whose endotracheal tube is unable to be removed in a shorter period of time; (3)#patient who is unable to undergo placement of endotracheal tubes due to severe trauma from the head or neck, or severe burn; (4) patient who is capable of spontaneous breathing,

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without dyspnea or much sputum.

5. ( ) 以下何者為氣管造口的優點？

(1)改善病人的通氣狀況，減少呼吸道阻力；(2)較容易移除痰液；(3)口腔或鼻腔不會造成壓迫導致破皮或潰瘍；(4)以上皆是。

Which of the follows is the advantage of tracheostomy?

(1)#improve patient's ventilation with reduced resistance in respiratory tract; (2)#easier for removal of sputum; (3)#no any crack or ulcer in the mouth or nasal cavity resulted from compression; (4) all of the above.

6. ( ) 以下何為氣管造口的風險及併發症？

(1)手術初期，造口傷口位置有滲血問題；(2)傷口感染；(3)皮下氣腫或氣胸；(4)以上皆是。

Which of the follows is the risk and complication for tracheostomy?

(1) bleeding problem at the opening wound site during initial postoperative period; (2) wound infection; (3) subcutaneous emphysema or pneumothorax; (4) all of the above.

(答對5-6題⇒完全了解；答對3-4題⇒部分了解；答對1-2題⇒完全不瞭解)

(Correct in 5 or 6 questions ⇒ completely understood; correct in 3 or 4 questions ⇒ partially understood; correct in 1 or 2 questions ⇒ not understood at all)

1.(O) 2.(X) 3.(O) 4.(4) 5.(4) 6.(4)

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