

# Suctioning

# Suctioning Definition



Aspirating secretion through a catheter  
**connected to a suction machine or  
wall suction outlet.**



Nasopharyngeal

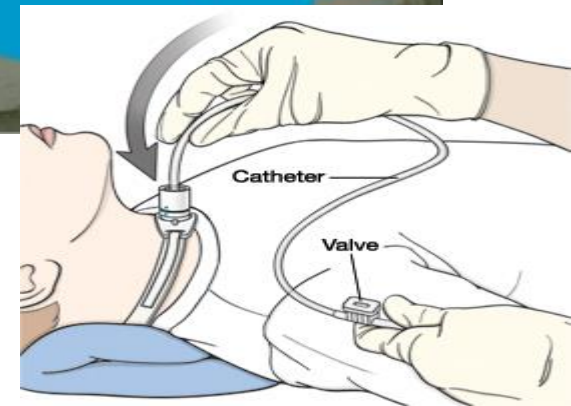
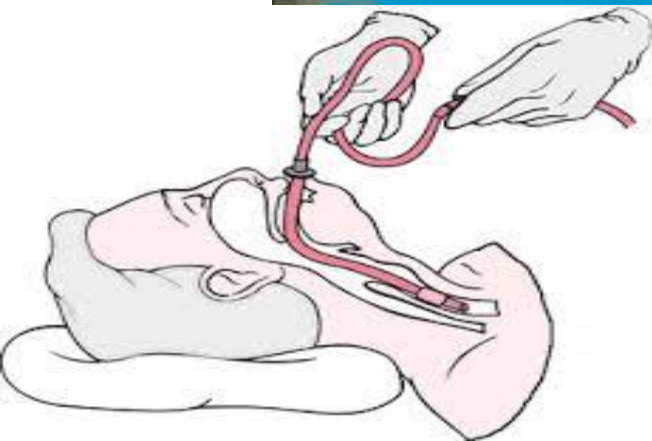
Oropharyngeal/  
Guedel airway

**Sites for Suctioning**



Endotracheal

Tracheostomy



# Deferent between



Oropharyngeal  
/Nasopharyngeal  
suctioning

Endotracheal/Tracheostomy  
suctioning

Remove secretion from the  
**upper** respiratory tract .

Remove secretion from the trachea  
and bronchi or the **lower**  
respiratory tract .

# Purposes

- To remove secretions that obstruct the airway
- To facilitate ventilation
- To obtain secretion for diagnosis purposes
- To prevent infection that may result from accumulated secretions
- To prevent aspiration

## Oral / Nasal suction

- 1- Maintain oral/ nasal hygiene.
- 2- **Comfort** for the patient.
- 3- **Remove blood & vomit** in an emergency situation.

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## Tracheal/ Endotracheal suction

Remove  
pulmonary  
secretions

# Indication












- 'Noisy' breathing
- Patients inability to generate an effective spontaneous cough
- Visible secretions in the airway
- Suspected aspiration of gastric or upper airway secretions
- clinically apparent increased work of breathing
- Deterioration of arterial blood gases
- Patient requests suctioning
- Low oxygen saturation
- Radiological changes consistent with retention of pulmonary secretions

# Size of the catheter

- Adult : 12Fr to 18Fr
  - Children : 8Fr to 10 Fr
  - Infant : 5Fr to 8Fr
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- \*Half the diameter (or less) of the tracheal tube



# Suction catheter of different size with color code

Size in FG	Colour	Plain
5	Grey	
6	Light Green	
8	Blue	
10	Black	
12	White	
14	Green	
16	Orange	
18	Red	
20	Yellow	
22	Violet	
24	Light Blue	

# ARTICLES

: Suction source

Portable suction

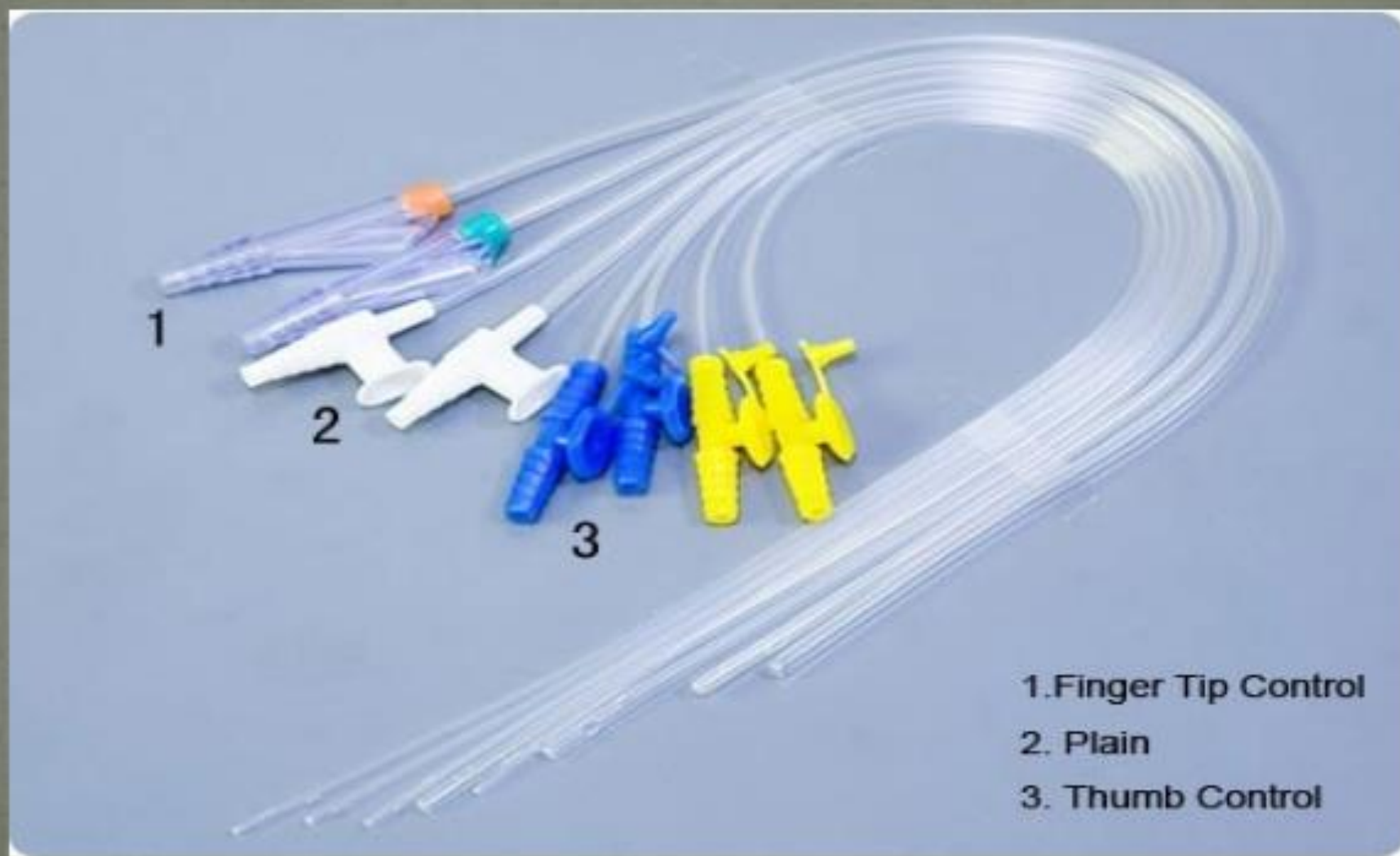
wall suction unit



# Normal pressure

	Wall Unit	Portable Unit
Adult	100-120 mm of Hg	10-15 mm of Hg
Child	95-110 mm of Hg	5-10 mm of Hg
Infant	50-95 mm of Hg	2-5 mm of Hg

# SUCTION CATHETER OF DIFFERENT SIZE WITH COLOR CODE



# Articles

- Appropriate size sterile suction catheter
- Portable or wall suction apparatus with connecting tube or Y-connector
- Sterile water / normal saline in bowl
- Face mask
- Gloves
- Mackintosh with Towel or water proof pad
- Tongue depressor
- Nasal or oral airway (as required)

# Procedure

- Assess for sign/symptoms which indicate presence of upper airway secretions, gurgling respiration, restlessness, vomitus in mouth, drooling
- Explain the procedure to the client & also to relatives
- Prepare necessary equipment & supplies
- Position the patient
- Maintain privacy

Conscious patient	Unconscious patient
<b>Semi - Fowler's</b> position :with ✓ Head turned to <b>one side</b> <b>for oral suctioning</b> ✓ For <b>Nasal suctioning</b> with the Neck <b>hyperextended.</b>	<b>Lateral position</b> & the patient facing you .

- Place a towel on the pillow or under the chin
- Select the proper suction pressure for the type of suction unit. For wall suction unit –

– 100- 150 mm of Hg in adults  
– 95-110 mm of Hg in Children  
– 50-95 mm of Hg in infants

- Wash hands
- Wear gloves
- Using gloved hand, with coiled catheter, attach the catheter with connecting tubing of suction machine
- Approximately the distance between the client's ear lobe & tip of the nose & place the forefinger at that point

- Moisten the distal 6-8cms catheter tip with sterile solution
- For nasopharyngeal suctioning, gently insert catheter into nostril guide the catheter medially along the floor of nasal cavity
- For oropharyngeal suctioning, gently insert the catheter into the one side of mouth & guide the catheter to the oropharynx. Do not apply suction during insertion
- While withdrawing occluded the suction part with thumb, gently withdraw it by rotating
- The procedure should not take more than 15 seconds
- Flush the catheter with sterile solution and apply suction
- Suck the secretions from the mouth or under tongue after suctioning nasopharynx or oropharynx
- Wash hands after suctioning and discard the catheter
- Record the amount, consistency, color, odor & response of the client to procedure



# Points to remember !

- Apply the catheter of appropriate size
- Be gentle while suctioning
- Do not suction for more than 10 -15 seconds
- During suction if client coughs then immediately withdraw the catheter
- Flush catheter after each suction with sterile saline
- Allow 20-30sec interval between each suction & limit suctioning to 5 minutes in total

## ▪ Oropharyngeal suctioning

✓ Pull the tongue forward .

✓ Do not apply suction during insertion .

✓ Advance the catheter about 10 to 15 cm along on side of the mouth into oropharynx.

## ▪ Nasopharyngeal suction

✓ Advance the catheter along the nasal **cavity** with out suctioning.

✓ **Never force the catheter against an obstruction .**

Hypoxemia

Trauma to  
the airway

Complications

Nosocomial  
infection

Cardiac  
dysrhythmia