





NIV INTERFACES

Types of NIV interfaces	Advantages	Disadvantages
<p>Nasal pillows</p> 	<p>Smaller, less restrictive Can sleep prone, on sides/back No pressure on nasal bridge May require lower PAP level</p>	<p>More easily dislodged Permits mouth leak Direct air pressure may irritate nares Difficult to use with nasal congestion</p>
<p>Nasal mask</p> 	<p>Smaller than FFM Can sleep on sides/back May require lower PAP level</p>	<p>Mouth leak Can cause pressure ulceration of nasal bridge Difficult to use with nasal congestion</p>
<p>Full face mask</p> 	<p>Resolves mouth leak</p>	<p>Aerophagy Claustrophobia Difficult to sleep non-supine Can cause pressure ulceration of nasal bridge May require higher PAP level</p>
<p>Oronasal hybrid</p> 	<p>Resolves mouth leak Less restrictive than FFM No pressure on nasal bridge</p>	<p>Aerophagy Difficult to sleep non-supine May require higher PAP level</p>

NONINVASIVE VENTILATION

Noninvasive ventilation for acute respiratory failure

Clinical indication	Certainty of evidence	Recommendation
Prevention of hypercapnia in AECOPD	++	AGAINST (conditional)
Hypercapnia in COPD exacerbation	++++	FOR (strong)
Cardiogenic pulmonary edema	+++	FOR (strong)
Acute asthma exacerbation		None
Immunocompromised	+++	FOR (conditional)
<i>De novo</i> respiratory failure		None
Post-operative patients	+++	FOR (conditional)
Palliative care	+++	FOR (conditional)
Chest trauma	+++	FOR (conditional)
Pandemic viral illness		None
Prevention of post-extubation respiratory failure in high-risk patients	++	FOR (conditional)
Post-extubation respiratory failure	++	AGAINST (conditional)
Weaning hypercapnic patients on MV	+++	FOR (conditional)

Rochwerg B, Brochard L, Elliott MW, et al. *Eur Respir J* 2017;50:1602426

High flow nasal cannula O₂ therapy for respiratory failure

Indication	Potential advantages	Evidence for use
Non-hypercapnic hypoxemic respiratory failure	More comfort, better oxygenation than face mask Low PEEP, reduces physiologic dead space → reduced WOB	Similar intubation rates vs standard O ₂ therapy & NIV Improved 90-day all-cause mortality vs standard O ₂ & NIV

Frat JP, Thille AW, Mercat A, et al *N Engl J Med* 2015; 372:2185-2196