



GOAL



Liberate from NIPPV maintaining SpO₂ >90% with minimal oxygen

WHEN TO WEAN

Patient meets **BOTH**

- ✓ RR ≤24 for 1 hour
- ✓ FiO₂ ≤0.40



CLINICAL PEARL

Patients do not need to be on maximum NIPPV settings before beginning weaning

Resume NIPPV at previous tolerated settings and reassess. Consider weaning again once stabilized on settings and meets wean criteria.

STEP 1 WEAN IPAP AND EPAP

Wean IPAP and EPAP by 2-3 cmH₂O every 10-15 minutes until:

- IPAP ≤8 cmH₂O **AND**
- EPAP ≤5 cm H₂O

Maintain current FiO₂ during wean.

TOLERATING
IPAP ≤8 cmH₂O
AND
EPAP ≤5 cmH₂O?

NO

YES

MEETS FOLLOWING CRITERIA?

- RR ≤24
- SpO₂ > 90%
- Comfortable work of breathing

YES

NO

REASSESS

Return to previously tolerated settings and reassess.

STEP 2 TRIAL OFF NIPPV



Discontinue NIPPV and transition to humidified oxygen at 10 LPM (or as clinically indicated.)

TOLERATING OFF NIPPV?

- RR ≤24
- SpO₂ > 90% on 10 LPM oxygen
- Comfortable work of breathing

YES

NO

STEP 3 CONTINUE OXYGEN WEAN



Wean oxygen flow as tolerated to maintain SpO₂ > 90%. Transition to lowest effective flow or room air.

MONITOR CONTINUOUSLY



SpO₂ (goal > 90%)



Respiratory rate (goal ≤24/min)



Work of patient breathing & patient comfort



Clinical status



ABG / VBG (as indicated)

TROUBLESHOOTING



Intolerance (↑RR, distress, desaturation)

Return to previous settings.
Reassess and resume wean once stable.



Sustained RR >30

This is an indication of failure.
Increase support or intubate.



Persistent hypoxemia (SpO₂ < 90%)

Increase FiO₂
Reassess and resume wean once stable



Worsening breathing

Return to previous settings
Reassess and resume wean once stable



High tidal volumes (> 9.5 mL/kg PBW)

Consider reducing IPAP

