Katrínartún 2
105 Reykjavík, Iceland
+354 5707170 | noxmedical.com

# Noxturnal 7.4

## Frequently Asked Questions (FAQ)

## 1. Ventilatory Burden & Nox Flow

**Q: What is Ventilatory Burden in Noxturnal 7.4?**
A: Noxturnal 7.4 introduces Ventilatory Burden, a new parameter that quantifies the cumulative reduction in ventilation associated with respiratory events throughout the night. By taking into account the depth, duration, and frequency of these events, ventilatory burden provides additional insight into the impact of sleep-disordered breathing beyond traditional event-based respiratory indices.

**Q: What is Nox Flow and how does it differ from cRIP Flow?**
A: Nox Flow is a new respiratory flow signal derived from calibrated Nox RIP technology using the thoracic and abdominal RIP belts. Unlike cRIP Flow, Nox Flow is used to derive a Minute Ventilation signal, which supports the calculation of Ventilatory Burden. Nox Flow is an improved version of cRIP flow, with step improvements in signal processing to more closely resemble signals from pneumotachograph than the previous version.

**Q: Is Nox Flow derived from the nasal cannula or RIP belts?**
A: Nox Flow is derived from calibrated Nox RIP technology using the thoracic and abdominal RIP belts (not the nasal cannula).

**Q: Are Ventilatory Burden and Minute Ventilation intended for direct clinical decision making?**
A: Ventilatory burden, Nox Flow and Minute Ventilation are supplementary informational outputs provided for evaluation only and are not intended for clinical decision making. These new additions provide additional information about ventilation and may be useful when evaluating respiratory characteristics alongside established signals and parameters, giving clinicians a more detailed view of disease severity. They do not replace or change the clinical use of established respiratory signals and parameters.

## 2. Reporting & Parameter Updates

**Q: What new calculations are available for MSLT reporting?**
A: Noxturnal 7.4 adds new report fields to calculate Average REM Latency of all Naps and the Number of Naps where Sleep Occurred.

**Q: How do the new AHI ≥3% desaturation-only parameters work?**
A: New AHI parameter includes only hypopneas associated with a ≥3% desaturation, excluding hypopneas that qualify based on arousal alone. This provides updated AHI reporting for showing AHI without arousals.

## 3. Workflow Enhancements & Platform Readiness

**Q: What improvements have been made for live recordings?**
A: Automatic association of arousals and Periodic Limb Movements (PLMs) (introduced in Noxturnal 7.3) now works during live/in-lab recordings. We've also fixed a stability issue where the scoring page jumped forward during live recordings, as well as fixes to single-click scoring.

**Q: What updates support Nox Connect?**
A: Noxturnal 7.4 supports Nox Connect with enhancements for both PSG and SAS workflows, including improvements in video handling, multi-user authentication and the addition of PAP summary parameters. The release also makes the SAS frontal signal filter available in Noxturnal Web.

## References

Labarca, G., Drake, L., Farrell, J., Sands, S. A., & Azarbarzin, A. (2023). Sleep apnea physiological burdens and cardiovascular morbidity and mortality. *American Journal of Respiratory and Critical Care Medicine*, *208*(7), 802–813. https://doi.org/10.1164/rccm.202209-1808OC

Finnsson, E., Loftsson, H., Gudmundsdottir, S., & Helgadottir, H. (2026). Respiratory inductance plethysmography to quantify changes in ventilation in obstructive sleep apnea. *IEEE Transactions on Biomedical Engineering*, *73*(5), 1943–1952. https://doi.org/10.1109/TBME.2025.3618403

Parekh, A., Varga, A. W., Osorio, R. S., & Ayappa, I. (2023). Ventilatory burden as a measure of obstructive sleep apnea severity is predictive of cardiovascular and all-cause mortality. *American Journal of Respiratory and Critical Care Medicine*, *208*(11), 1216–1226. https://doi.org/10.1164/rccm.202301-0109OC