



Nox RIP Technology

Redefining Accuracy in Sleep Diagnostics



When a patient undergoes a sleep study with Nox Medical's diagnostic equipment, whether at home or in the lab, the patient's breathing throughout the night is recorded with the patented Nox respiratory inductance plethysmograph (RIP) belts.

Nox Flow™

Accurate diagnosis starts with measuring what matters: real airflow. Powered by a calibrated RIP flow signal, Nox Flow¹ delivers deeper insight into the mechanics of breathing—capturing true flow and effort to support confident, conclusive decisions across all care settings.

- >> Real respiratory airflow through calibrated Nox RIP technology that performs on par with pneumotachography^{2,3}
- >> Designed for diagnostic clarity across wide range of patient populations regardless of comorbidities, skin color, or gender4
- >> Consistent performance: Nox RIP signals remain unaffected by vascular pathologies or external artifacts, common in patients with cardiovascular, autonomic, or peripheral circulatory dysfunction
- >> No manual Calibration: Nox RIP signals are continuously self-calibrating, reducing setup complexity and operator error⁵
- Sensor design: Comfortable, single-patient use belts that retain signal quality⁶

¹ Nox Flow is a calibrated RIP flow signal from Nox Medical devices.

² Finnsson et al. Poster presented at: World Sleep 2019; Vancouver, Canada.

³ Finnsson et al. Sleep Med. 2019;64(suppl 1):S115-S116.

⁴ FDA cleared software medical device DeepResp K241960.

⁵ Höskuldsson et al., US Patent App. US 2023/0200677 A1s, July 2023

⁶ Montazeri et al., Sleep Breath. 2021;25(3):1535–1541. doi:10.1007/s11325-020-02268-x

∩ O X A1s

Built for the Lab. Ready for the Home



The Nox A1s PSG system redefines clinical efficiency with its tether-free, lightweight design—enhancing patient comfort while streamlining setup. By minimizing cables, and integrating essential components, it enables faster setup, reduces operational overhead, and elevates the diagnostic experience for both patients and providers.

- >> High Signal Quality: Meets the AASM standards for full in-laboratory PSG testing
- >> Tether-Free Setup: All necessary EEG signals are delivered through a single integrated cable—eliminating the traditional headbox
- >> Type I and II System: For in-lab PSG and unattended home studies—no extra hardware or licenses required
- >> Fully Integrated Sensors: Nox RIP technology, PTAF, snore microphone, and body position technology
- >> Built for Comfort: The wireless design allows patients to move more freely and rest more comfortably
- Al analyses, available in Noxturnal software, automate routine tasks and provide greater insights to sleep study data
- >> Smart Features: Real-time monitoring, bedside bio-calibration with Android tablet app
- >> Inclusive and Accessible: The Nox A1s is intended for use on patients aged 2 years and older



Nox A1s Technical Specifications: https://noxmedical.com/technicalspecifications-A1s/



Nox SAS™ PSG Solution

Polysomnography made simple, in-lab and at-home

Using the Nox SAS solution with the Nox A1s offers a new approach to conducting full polysomnography (PSG) studies. The solution records all the typical physiological signals—EEG, EOG, EMG, and ECG—with a high level of agreement for all sleep stages when compared to conventional PSG studies¹. The streamlined setup of Nox SAS is designed to be easy to apply and time-saving.



OX T3s™

Built on Precision. Powered by Physiology

The Nox T3s is a clinically trusted home sleep system that delivers real respiratory flow data. Designed for simplicity, reliability, and clinical depth, it equips sleep professionals with the actionable insights needed to diagnose with confidence and care for a broader, more diverse patient population.





- Nox Flow™: real respiratory flow measurement using patented RIP technology
- >> Extensive Signals: with body position and 3-axis actigraphy, SpO₂, pulse, and plethysmography, dual integrated snoring detection
- Engineered for Accuracy: across diverse populations, including women, younger individuals, and those with chronic or comorbid conditions
- Clinically Proven: in studies on patients with cardiovascular disease, COPD, stroke, and more
- Inclusive by Design: Pediatric-ready for patients
 2 years and older and no contraindications in intended use



Nox T3s Technical Specifications: https://noxmedical.com/technicalspecifications-T3s/

Nox BodySleep™

Sleep time estimation using breathing parameters

Experience a breakthrough in home sleep testing with the Nox T3s, featuring the advanced Nox BodySleep analysis. This novel analysis empowers sleep professionals to assess sleep states—REM, NREM, and Wake—in a home environment. Utilizing sophisticated AI algorithms and Nox's refined calibrated RIP technology, Nox BodySleep delivers sleep state differentiation based solely on respiratory data, eliminating the need for traditional EEG, EOG, and EMG signals.

- Differentiates between REM, NREM, and Wake states using advanced algorithms.
- Sleep state assessment without traditional brain state measurements.
- Utilizes calibrated Nox RIP technology to interpret physiological changes linked to sleep stages.

Sleep Parameters



A chart showing sleep stages from Nox BodySleep analysis



noxturnal® - Software

The Foundation of Nox's Diagnostic Excellence



Noxturnal is the analytical backbone of Nox diagnostic systems, built for accurate and efficient sleep study scoring, interpretation, and reporting.

- >> Faster workflows through configurable templates, automated scoring, and smart review tools
- >> Integrated Al insights that enhance scoring accuracy and reduce interpretation time
- Clinician control with full-featured raw data analysis and scoring, transparent algorithms and manual scoring capabilities
- >>> Clear, customizable reports aligned with AASM standards for streamlined interpretation.

 3 and 4% hypopnea reporting support
- >> Supports customized MSLT and MWT sleep studies, as well as split night and titration studies

Artificial Intelligence That Drives Clinical Confidence

When Nox sleep tests are paired with advanced AI, scoring becomes more efficient and interpretation becomes clearer and more clinically meaningful.

Nox BodySleep™

Utilizes AI, intended to differentiate 30-second epochs into the REM and NREM sleep states, and Wakefulness. Nox's BodySleep technology estimates sleep states by processing respiratory data through advanced algorithms utilizing Nox RIP flow.

Hypoxic Burden

Hypoxic Burden, provided as an informational parameter only, combines the depth and length of oxygen desaturation events to reflect the impact of breathing disruptions and has been shown to predict CVD mortality across populations⁴.

Ventilatory Burden

Measures actual airflow reduction—not delayed effects like desaturation—providing reliable, unbiased insight into disease severity. Using Nox RIP flow data, it reflects true physiological burden and is independently predictive of cardiovascular and all-cause mortality^{1,2,3}.

¹ Parekh et al. Am J Respir Crit Care Med 208, 1216–1226 (2023). DOI: 10.1164/rccm.202301-01090C

² Lechat & Eckert. Am J Respir Crit Care Med 208, 1153–1155 (2023). DOI: 10.1164/ rccm.202310-1718E

³ Ventilatory Burden is part of FDA cleared software medical device DeepResp K241960 currently available in the United States only.

⁴ Azarbarzin et al. Eur Heart J 40, 1149-1157 (2019). DOI: 10.1093/eurheartj/ehy624



A Vision for the Future of Sleep Medicine

Wake up to a brighter world™

Nox Medical is a global leader in the science of sleep, transforming millions of patients' lives through streamlined diagnostic care, comfort, and supporting accurate diagnoses. By addressing common diagnostic pain points with easy-to-use sleep diagnostic technology that prioritizes patient comfort and reliable results, Nox Medical enables sleep healthcare providers to work more efficiently and streamline operations, ultimately enhancing the assessment, diagnosis, and treatment of the full spectrum of sleep health issues.



Nox Medical provides all the equipment you need to offer every level of diagnostic care, including in-lab polysomnography (PSG), at-home PSG, home sleep apnea testing (HSAT), sleep scoring with advanced Al analyses and reporting.

The following are medical devices that are CE-marked and intended for clinical use under the supervision or direction of a qualified healthcare professional: Nox T3s system, Nox A1s system, Noxturnal and Nox RIP belts. For more information on these devices, including their intended use, contraindications, and instructions for use, please consult the manufacturer's documentation at noxmedical.com/downloads.

All Artificial Intelligence analysis results should always be reviewed by a certificated technologist or a physician prior to diagnosis.



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