

Welcome to the Nox SAS — a sleep revolution



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The Nox SAS solution

The Nox SAS solution is a new, flexible way to record EEG, ECG and EMG data during polysomnography sleep studies conducted with the Nox A1s. From the desks of sleep scientists at research universities to the hands of physicians and technicians in sleep clinics, the Nox SAS is relied on for accurate sleep testing everywhere where sleep happens, with less hassle.

Each Nox SAS cable is only as long as it needs to be. This ensures that there are no tangled, bulky wires to worry about, only smooth and seamless data collection.

The Nox SAS solution comes with disposable gel EEG electrodes that are secured to the patient's skin just above the brow. The head cable is then snapped in place into each electrode along the forehead.

The solution also comes with wireless connectivity, so patients are never tethered to the bed. No need to unhook anything for bathroom trips or to get a sip of water.

A Seamless Sleep Diagnostic Experience

Just as accurate as a traditional EEG head cable, but with less hassle, the Nox SAS hookup is simple. Signals typically derived from the scalp and chin are recorded from the forehead electrodes, so there is no need for scalp EEG electrodes or chin-EMGs. The typical troubles of attaching electrodes on the scalp or managing facial hair are never a problem.

Recent research has shown that the Nox SAS provides a high level of agreement for all sleep stages in adults and children when compared to the conventional montage, currently recommended by the American Academy of Sleep Medicine^{1,2}.

Additionally, an internal validation study of 204 traditional PSG head cable sleep recordings and 244 Nox SAS sleep recordings collected in a double hook-up configuration from adults in a standard clinical setting found good agreement between the two recording groups.

¹ Punjabi NM, Kaplan PW, Margolick J, Aurora RN. 0319 A Simplified Bipolar Frontal Montage for Recording and Staging Sleep. Sleep. 2018;41:A122-A122. doi:10.1093/sleep/zsy061.318

² Kainulainen S, Korkalainen H, Sigurðardóttir S, et al. Comparison of EEG Signal Characteristics Between Polysomnography and Self Applied Somnography Setup in a Pediatric Cohort. IEEE Access. 2021;9:110916-110926. doi:10.1109/ACCESS.2021.3099987





A Swift Hookup

The Nox SAS solution is also a time saver. The whole hookup process can be completed in as little as 15 minutes. And with disposable gel sensors, there is no need to spend time on cleaning EEG electrodes.

A flexible solution, the Nox SAS is used with the Nox A1s sleep test system, and can be applied in the sleep lab or at the patient's home. The Nox SAS aims to make sleep diagnostics accessible no matter where they are needed.

It is even flexible enough to be self-applied by the patient, bringing polysomnography to the patient's home, and easing the potential burden on sleep clinic staff.

The Precision of the Sleep Lab – Everywhere

A research study of the Nox SAS found that successful and reliable recordings were collected from approximately 85% of the 900 participants on the first attempt, and 88.6% overall after two attempts. The study also demonstrated that the EEG and EOG signals could be acquired without significant duration of artifact³.

Then, when each study is complete at the end of the night, artificial intelligence-driven proprietary software developed by Nox Medical data scientists can synthesize the sleep study metrics to give clinicians an accurate picture of their patient's sleep health. The goal is to get the most precise diagnosis, on the first try.

³ Punjabi NM, Brown T, Aurora RN, et al. Methods for home-based self-applied polysomnography: the Multicenter AIDS Cohort Study. *Sleep Adv.* 2022;3(1):zpac011. doi:10.1093/sleepadvances/zpac011

