

INNOVATIVE TECHNOLOGY FOR OBJECTIVE SLEEP MEASUREMENT



Somno-Art is a validated wearable medical device for sleep architecture analysis and sleep disorders aid to diagnostic intended for medical use and clinical research.

Somno-Art captures heart activity and movements to generate hypnograms and sleep parameters. The system allows multiple consecutive nights reports.

DEVICE

CE 0297

CE-marked medical device

Made in France



Photoplethysmography
Pulse-pulse interval



Actimetry
3 spatial axes at 250Hz



Memory
96 nights



Battery
40 hours



SOFTWARE

Our proprietary AI-based algorithm analyzes the recorded biosignals and extracts detailed reports on sleep architecture.

WORKFLOW

Our modern and user-friendly platform enables easy and automated sleep data analysis while adhering to the highest quality and security standards (HIPAA/GDPR compliant).



1. Recording
The data is recorded by the Somno-Art Device and transferred to the computer



2. Data transmission
The recordings are securely sent to the Somno-Art data center



3. Scoring
Once validated, the recordings are scored by the Somno-Art Software



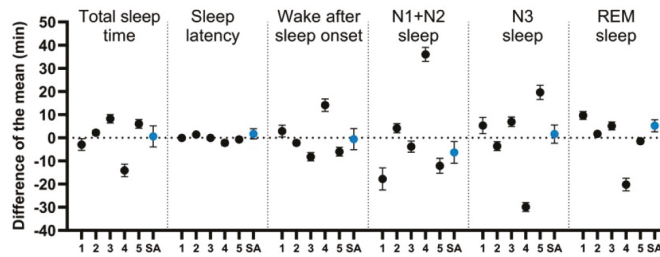
4. Report creation
For each night a sleep report is created, containing all the information recommended by the AASM



5. Results transmission
All the reports and data are securely sent to the customer

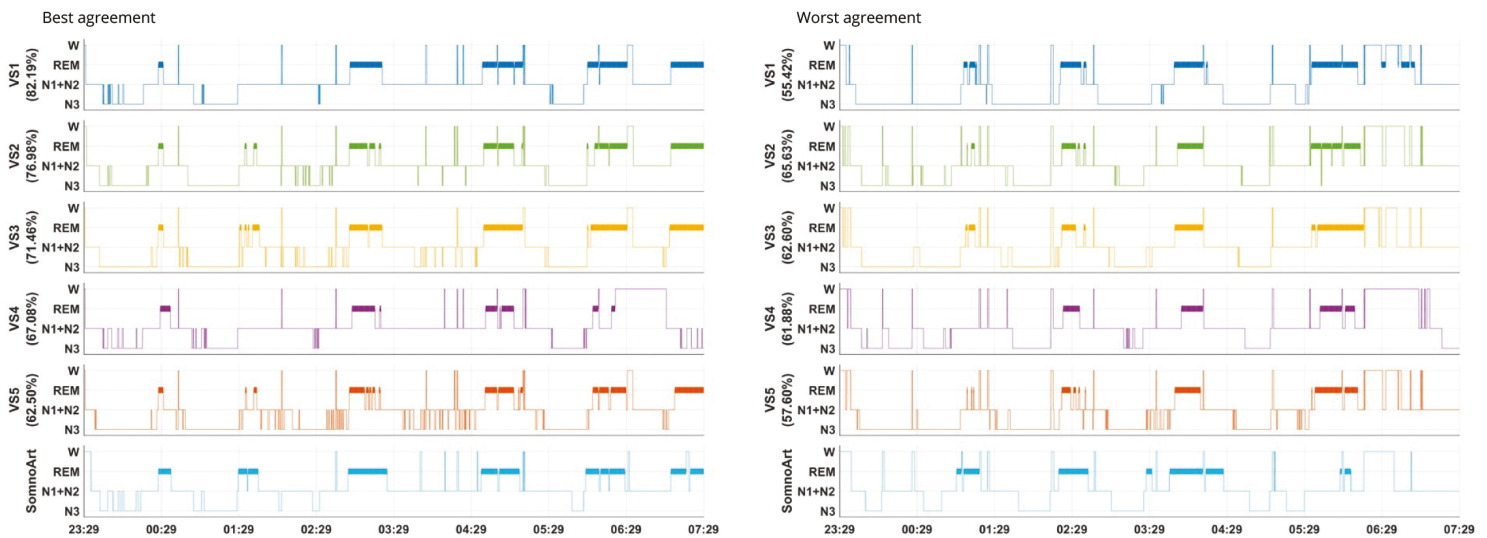
High reliability

An internationally conducted comparative study demonstrates the reliability of sleep stage classification using Somno-Art Software compared to manual PSG analysis.³ with VS = visual scorer (agreement with Somno-Art).



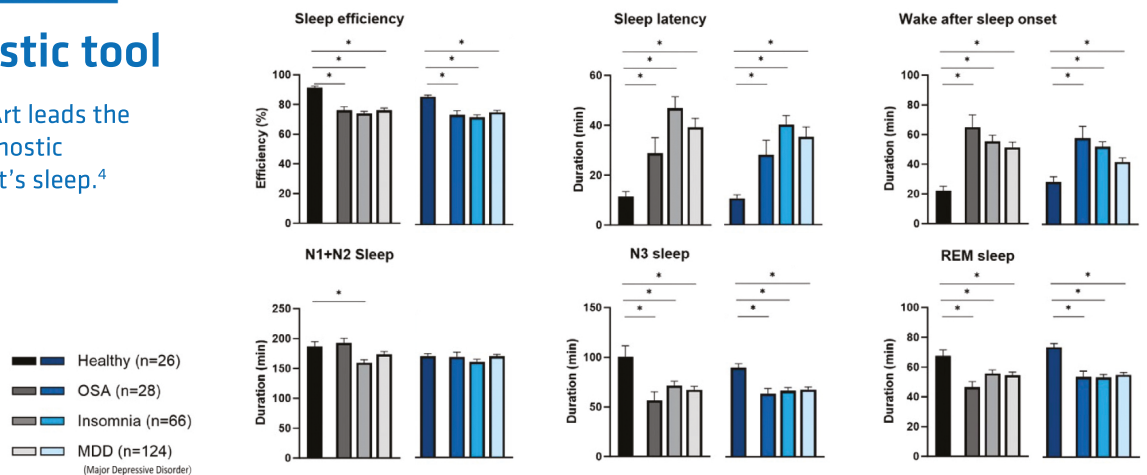
Link to the article in Sleep Medicine vol.96

Mean ± SEM of 60 recording nights (healthy, OSA, insomnia, and depressed patients)



Aid-to-diagnostic tool

The use of PSG or Somo-Art leads the clinician to the same diagnostic conclusion about a patient's sleep.⁴



Peer-reviewed publications

- Muzet A, Werner S, Fuchs G, Roth T, Saoud JB, Viola AU, Schaffhauser JY, Luthringer R. Assessing sleep architecture and continuity measures through the analysis of heart rate and wrist movement recordings in healthy subjects: comparison with results based on polysomnography. *Sleep Medicine*. 2016;21:47-56.
- Thiesse L, Staner L, Bourgin P, Roth T, Fuchs G, Kirscher D, Schaffhauser JY, Saoud JB, Viola AU. Validation of Somno-Art Software, a novel approach of sleep staging, compared with polysomnography in disturbed sleep profiles. *SLEEP Advances*. 2021;3(1).
- Thiesse L, Staner L, Fuchs G, Kirscher D, Dehouck V, Roth T, Schaffhauser JY, Saoud JB, Viola AU. Performance of Somno-Art Software compared to polysomnography interscorer variability: A multi-center study. *Sleep Medicine*. 2022;96:14-9.
- Thiesse L, Staner L, Bourgin P, Cornet H, Fuchs G, Kirscher D, Roth T, Schaffhauser JY, Saoud JB, Viola AU. (2023). Somno-Art Software identifies pathology-induced changes in sleep parameters similarly to polysomnography. *PLoS One*, 18(10), e0291593.

Presented in international conferences (SFRMS, ESRS, World Sleep, APSS, ISDA, SFC, EBRS, SRBR,...)