

Resource Summary Report

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Sleep Heart Health Study

RRID:SCR_016559

Type: Tool

Proper Citation

Sleep Heart Health Study (RRID:SCR_016559)

Resource Information

URL: <https://sleepdata.org/datasets/shhs>

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Description: Portal for a multi-cohort study focused on sleep-disordered breathing and cardiovascular outcomes implemented by the National Heart Lung and Blood Institute. Recorded signals are: EEG, ECG, EOG, SaO2, HR, EOG, EMG, respiratory inductance plethysmography, respiration (thermistor), position, light.

Abbreviations: SHHS

Synonyms: Sleep Heart Health Study

Resource Type: data or information resource, disease-related portal, portal, topical portal

Defining Citation: [PMID:9493915](#)

Keywords: dataset, analysis, sleep, apnea, breathing, disorder, cardiovascular, disease, EEG, ECG, respiration, PSG

Related Condition: sleep disorder, sleep apnea, cardiovascular disease

Funding: NHLBI U01 HL53916;
NHLBI U01 HL53931;
NHLBI U01 HL53934;
NHLBI U01 HL53937;
NHLBI U01 HL53938;
NHLBI U01 HL53941;
NHLBI U01 HL64360

Availability: Free, Freely available, Registration required for membership

Resource Name: Sleep Heart Health Study

Resource ID: SCR_016559

Record Creation Time: 20220129T080331+0000

Record Last Update: 20260912T195841+0000

Ratings and Alerts

No rating or validation information has been found for Sleep Heart Health Study.

No alerts have been found for Sleep Heart Health Study.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 84 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Thapa R, et al. (2026) A multimodal sleep foundation model for disease prediction. Nature medicine, 32(2), 752.

Huang W, et al. (2026) A unified time-frequency foundation model for sleep decoding. Nature communications, 17(1), 1198.

Monteiro AC, et al. (2026) OPG-Producing B Cells and RANKL-Expressing T Cells Define Immune Signatures Predictive of Bone Metastases in Breast Cancer. Cancer research communications, 6(1), 85.

Zhu M, et al. (2025) Association of cardiometabolic index with all-cause and cardiovascular mortality among middle-aged and elderly populations. Scientific reports, 15(1), 681.

Mousavi S, et al. (2025) Overnight deep inspiration patterns in obstructive sleep apnea patients with and without asthma. Physiological reports, 13(21), e70622.

Wang L, et al. (2025) Determinative sleep traits associated with dyslipidemia in obstructive sleep apnea patients. BMC pulmonary medicine, 25(1), 105.

Cerina L, et al. (2025) Breathtaking dreams: reduced REM phenotype in REM-related sleep apnea. Sleep & breathing = Schlaf & Atmung, 29(1), 87.

Hu S, et al. (2025) Transparent artificial intelligence-enabled interpretable and interactive sleep apnea assessment across flexible monitoring scenarios. Nature communications, 16(1), 7548.

Lee H, et al. (2025) Explainable vision transformer for automatic visual sleep staging on multimodal PSG signals. NPJ digital medicine, 8(1), 55.

Martínez-Montero A, et al. (2025) Heart rate variability analysis in comorbid insomnia and sleep apnea (COMISA). Scientific reports, 15(1), 17574.

Zhu X, et al. (2025) Accessible moderate-to-severe obstructive sleep apnea screening tool using multidimensional obesity indicators as compact representations. iScience, 28(2), 111841.

Logan JG, et al. (2025) Supine sleep position and angina frequency: an analysis from the sleep heart health study. Sleep & breathing = Schlaf & Atmung, 29(6), 326.

Di Marco T, et al. (2025) Hyperarousal features in the sleep architecture of individuals with and without insomnia. Journal of sleep research, 34(1), e14256.

Zhuang Z, et al. (2025) Advancing sleep health equity through deep learning on large-scale nocturnal respiratory signals. Nature communications, 16(1), 9334.

Vaquerizo-Villar F, et al. (2025) An explainable deep learning approach for sleep staging in sleep apnea patients across all age subgroups from pulse oximetry signals. Engineering applications of artificial intelligence, 162(Pt C).

Thapa R, et al. (2025) A Multimodal Sleep Foundation Model Developed with 500K Hours of Sleep Recordings for Disease Predictions. medRxiv : the preprint server for health sciences.

Bechny M, et al. (2025) Novel digital markers of sleep dynamics: causal inference approach revealing age and gender phenotypes in obstructive sleep apnea. Scientific reports, 15(1), 12016.

Retamales G, et al. (2024) Towards automatic home-based sleep apnea estimation using deep learning. NPJ digital medicine, 7(1), 144.

Kovbasyuk Z, et al. (2024) Obstructive Sleep Apnea, Platelet Aggregation, and Cardiovascular Risk. Journal of the American Heart Association, 13(15), e034079.

Fonseca LM, et al. (2024) Mid-life sleep is associated with cognitive performance later in life in aging American Indians: data from the Strong Heart Study. Frontiers in aging neuroscience, 16, 1346807.