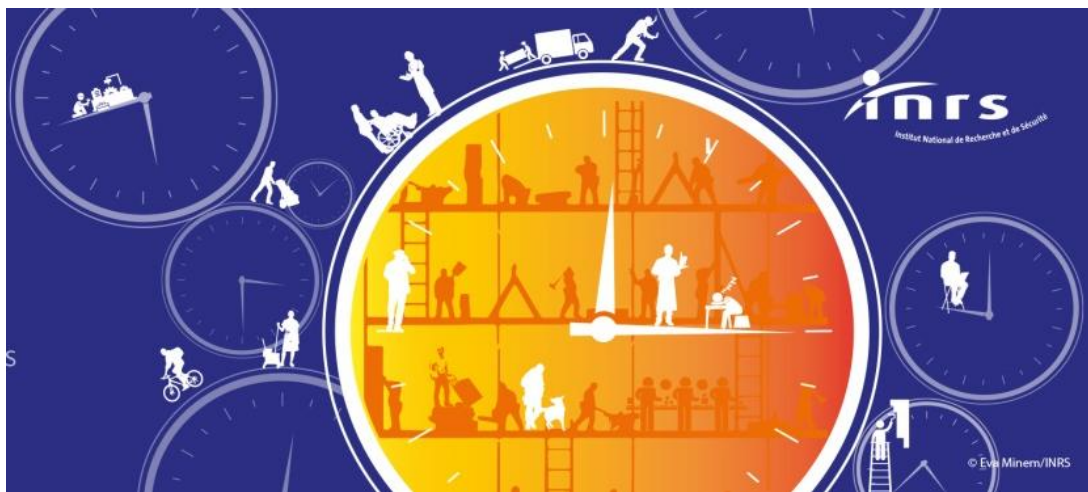


LES HORAIRES ATYPIQUES

Bulletin de veille scientifique : Avril 2026



Objectifs : réaliser une veille scientifique sur les horaires atypiques

La validation des informations fournies (exactitude, fiabilité, pertinence par rapport aux principes de prévention, etc.) est du ressort des auteurs des articles signalés dans la veille. Les informations ne sont pas le reflet de la position de l'INRS. Les éléments issus de cette veille sont fournis sans garantie d'exhaustivité. Les liens mentionnés dans le bulletin donnent accès aux documents sous réserve d'un abonnement à la ressource.

Les bulletins de veille sont disponibles sur le [portail documentaire de l'INRS](#). L'abonnement permet de recevoir une alerte mail lors de la publication d'un nouveau bulletin (bouton « M'abonner » disponible après connexion à son compte).

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Horaires atypiques (HA)

Généralités et prévention

Aucun article dans ce bulletin.

Activités physiques

Aucun article dans ce bulletin.

Autres pathologies

Aucun article dans ce bulletin.

Cancers

Aucun article dans ce bulletin.

Risque routier, accidentologie

Aucun article dans ce bulletin.

RPS et QVT

Aucun article dans ce bulletin.

Santé psychique

Aucun article dans ce bulletin.

Troubles cognitifs et de la vigilance

Aucun article dans ce bulletin.

Travail posté et de nuit

Généralités et prévention

Shift work, stress, time management and occupational balance: Their associations with job satisfaction among female nurses.

Akyurek G, Gündoğmuş E, Ateş D. *Work*. 2026 Mar 28;10519815261435984.

Background Shift work is a common requirement in healthcare settings to ensure 24-h continuity of care; however, it is associated with increased stress, disrupted circadian rhythms, and decreased job satisfaction among nurses. While occupational balance and time management skills are known to be protective factors, the relationships between these variables have not been adequately explored. **Objective** The purpose of this study is to compare stress, time management, occupational balance, and job satisfaction variables among shift- and non-shift-working nurses in Türkiye, to examine the relationships among these variables, and to determine their associations with job satisfaction. **Methods** Participants were 160 public-sector female nurses, including shift (24/24) and day (40-h/week) workers. Data were collected using the Perceived Stress, Time Management, Occupational Balance, and Job Satisfaction Scales. **Results** The study found significant differences between the two groups in age, stress, time management, and occupational balance ($p < 0.001$). Correlation analyses revealed generally weak to moderate relationships. Regression analyses revealed that stress was the only significant variable negatively associated with job satisfaction among shift-working nurses ($\beta = -0.054$, $p = 0.001$). In contrast, among non-shift-working nurses, occupational balance was the only significant variable associated with job satisfaction ($\beta = 0.056$, $p = 0.001$). Time management did not show a significant relationship in either group. **Conclusions** These findings suggest that shift work negatively affects nurses' psychological well-being, occupational balance, and overall job satisfaction. Stress reduction strategies for shift workers and occupational balance enhancement for non-shift nurses may improve job satisfaction. Tailored organizational interventions based on work schedules are recommended.

[Lien vers l'article](#)

Author reply to comments on "Association between health literacy and behaviors among shift workers: an observational cross-sectional study with mediation analysis".

Morikawa Y, Teranishi K, Sakurai M, Ishizaki M, Kido T, Nakagawa H. *J Occup Health*. 2026 Jan 6;68(1).

The objective of our study was to examine, using a cross-sectional design, whether health literacy (HL) mediates disparities in health habits between shift workers and day workers.

[Lien vers l'article](#)

Activités physiques

Aucun article dans ce bulletin.

Autres pathologies

Institutional fast-food availability and sustainable diet quality among shift workers: the mediating role of food environment capacity and the moderating effect of physical activity.

Zhu X, Du X, Sun D, Jian N, Lei T, Lin J, et al. *BMC Public Health*. 2026 Mar 24;26(1).

BACKGROUND: Shift workers are disproportionately exposed to institutional food environments shaped by long working hours and irregular schedules. In rapidly industrializing cities, institutional fast-food availability (IFFA) has become a routine component of daily food access for this population. However, existing evidence remains limited regarding how such exposure influences sustainable diet quality (SDQ), particularly through individuals' capacity to navigate their food environments and the potential conditioning role of physical activity. **METHODS:** This cross-sectional study surveyed 1,027 shift workers in Dongguan, China. Institutional fast-food availability, food environment capacity (FEC), physical activity (PA), and sustainable diet quality were measured using validated instruments. Partial least squares structural equation modeling was employed to estimate direct associations, test the mediating role of food environment capacity, and examine the moderating effect of physical activity. Conditional indirect effects were analyzed to assess moderated mediation. **RESULTS:** Institutional fast-food availability showed a significant positive association with sustainable diet quality ($\beta = 0.281$, $p < 0.001$). Food environment capacity partially mediated this relationship (indirect effect $\beta = 0.056$, $p < 0.001$), indicating that greater exposure to institutional food provision was associated with enhanced capacity to access and utilize healthier food options. Physical activity significantly moderated the pathway from institutional fast-food availability to food environment capacity ($\beta = 0.108$, $p < 0.001$) as well as the pathway from food environment capacity to sustainable diet quality ($\beta = 0.088$, $p = 0.004$). Conditional effect analyses further demonstrated that both the direct and indirect associations were substantially amplified among individuals with higher levels of physical activity, underscoring the conditional nature of the observed positive relationship. **CONCLUSIONS:** Among shift workers in Dongguan, institutional fast-food availability demonstrated a positive association with sustainable diet quality; however, this relationship was conditional rather than intrinsic. The beneficial association emerged primarily when individuals possessed stronger food-environment capacity and engaged in higher levels of physical activity. These findings indicate that institutional fast-food exposure does not directly enhance dietary sustainability per se but may function as a structural "safety net" under time-constrained working conditions when supported by individual competencies and health-oriented behaviors. Policies should therefore prioritize strengthening food environment capacity and promoting active lifestyles rather than focusing solely on restricting fast-food access. The findings should not be interpreted as evidence that fast food inherently promotes sustainable diets; rather, they highlight the importance of contextual constraints and individual adaptive capacity in shaping dietary outcomes within institutional food systems.

[Lien vers l'article](#)

Shift work and the risk of incident hospital-treated infections: quantifying the role of lifestyle factors.

Zhou Y, Chen Y, Xu M, Yan H, Yin X. *BMC Infect Dis*. 2026 Mar 10;26(1).

BACKGROUND: While the adverse effects of shift work on non-communicable diseases are widely recognized, research on its impact on infectious diseases is limited. We aim to investigate the association of shift work with hospital-treated infections through a large cohort, and to explore the mediating role of lifestyles in this association. **METHODS:** This cohort study included employed workers from the UK Biobank. Work status was self-reported at baseline (2006–2010). A total of 866 types of hospital-treated infectious diseases were identified through hospital inpatient records. Lifestyle factors included smoking, alcohol consumption, body mass index, sedentary behavior, sleep duration, diet, and physical activity. We performed Cox proportional hazards regression models to examine the association of shift work with infections, and cause mediation analyses to explore the mediating role

of lifestyles. RESULTS: Of 266,450 employed workers, 45,406 (17.04%) reported working shifts. During a median follow-up of 12.47 years (IQR 11.55–13.25), 40,684 workers (15.27%) developed severe infections that required hospital treatment. Shift work was associated with a higher risk of infectious diseases (HR 1.10, 95% CI 1.07–1.13), and comparable risks were observed across different shift frequencies (sometimes: HR 1.09, 95% CI 1.05–1.13; usually/always: HR 1.10, 95% CI 1.07–1.14). CONCLUSIONS: In this cohort study, shift work was associated with higher risks of hospital-treated infections, with lifestyle variables mediating this association. It is recommended to consider shift work as an occupational hazard and implement individual-level and organizational-level interventions to mitigate vulnerability to infectious diseases. SUPPLEMENTARY INFORMATION: The online version contains supplementary material available at 10.1186/s12879-026-12979-3.

[Lien vers l'article](#)

Shift work, genetic risk, and incident gout: a prospective cohort study in the UK Biobank.

Wu C, Zhang H, Xia J, Peng B, Chen J, Wang M, et al. *Arch Public Health*. 2026 Mar 17;84(1).

BACKGROUND: Shift work (SW) has been linked to the occurrence of various chronic diseases. However, its potential correlation with gout has not been established. This study aimed to investigate the effects of the SW schedule on incident gout. METHODS: A total of 281,500 individuals enrolled in the UK Biobank were included in the cohort study. The Cox proportional hazards model was used to investigate the association between SW and incident gout. Additionally, a genetic risk score (GRS) was constructed to assess the joint effects of SW and genetic predisposition on the risk of gout. RESULTS: During a 13-year follow-up period, we recorded 4,282 new-onset gout cases. In the current SW analysis, individuals with some night shifts had a 15.1% higher gout risk compared to day workers, which varied by smoking status, chronotype, and obesity status [hazard ratio (HR): 1.151, 95% confidence interval (CI): 1.018–1.301]. The lifetime analysis indicated that individuals with < 5 years of night shifts were more prone to gout than those without night shift exposure, especially when excluding those who developed gout within one year from the baseline (HR: 1.259, 95% CI: 1.027–1.542). An interaction between SW and genetic predisposition was observed, with individuals having both high GRS and some night shifts showing a 218% higher gout risk compared to those with low GRS and day work (HR: 3.18, 95% CI: 2.58–3.92). CONCLUSIONS: Both current and lifetime SW were associated with an increased gout risk, with genetic predisposition further amplifying this risk. These findings contribute additional evidence to the current understanding of the detrimental effects of SW and provide a novel and important perspective on strategies for the primary prevention of incident gout. GRAPHICAL ABSTRACT: [Image: see text] SUPPLEMENTARY INFORMATION: The online version contains supplementary material available at 10.1186/s13690-026-01888-1.

[Lien vers l'article](#)

The association between self-reported shift work and change in kidney function in women and men in a multi-ethnic population: The HELIUS study.

Vosters TG, van de Fliert DJ, Jager KJ, Stel VS, Nieuwenhuijsen K, Wijntjens GWM, et al. *J Occup Environ Med*. 2026 Mar 3.

OBJECTIVE: This study investigated the association between self-reported shift work and change in kidney function in women and men in a multi-ethnic cohort. METHOD: Data from the prospective HELIUS cohort (n=3812 women, 3488 men) including adults from six ethnic backgrounds based in the Netherlands, was used to assess associations between self-reported shift work and change in eGFR and ACR using sex-stratified linear regressions and mediation analyses. RESULTS: Shift work was associated with a significant decline in eGFR but not ACR among men versus non-shift workers. No significant associations were found for change in eGFR or ACR in women overall. No evidence was found for a mediating role of traditional and lifestyle-related CKD risk factors. CONCLUSION: Shift work

may be detrimental to kidney health. Employers and policymakers should consider addressing the potential kidney health risks of shift work, particularly in men.

[Lien vers l'article](#)

Do the Long-Term Cardiometabolic Effects of Night Shift Work Differ Between Men and Women? A 17-Year Cohort Study of the U.S. Workforce.

Romero-Parra M, Caballero Ó, García-Hermoso A, López-Gil JF, Páez-Herrera J, Yáñez-Sepúlveda R, et al. *Saf Health Work*. 2026 Mar;17(1):70-5.

BACKGROUND: Shift work, particularly in night shifts, has been linked to adverse health outcomes, including disruptions in circadian rhythms that may contribute to metabolic disorders. However, sex-related differences in the impact of night shift work on cardiometabolic health remain understudied. This study sought to examine the relationship between night shift work and cardiometabolic health in young adults, identifying potential sex-related differences. **METHODS:** In this prospective cohort study, a total of 3201 participants (mean age: 22.08 years, 59.9% women) were analyzed over a 17-year period. Relative risks (RRs) with 95% confidence intervals (CIs) were calculated to evaluate the impact of night shift work on cardiometabolic health outcomes, including obesity, hyperlipidemia, hypertension, type 2 diabetes, and metabolic syndrome (MetS). **RESULTS:** At Wave V, 74.7% of participants were diagnosed with overweight/obesity, 51.8% with abdominal obesity, 15.5% with hyperlipidemia, 29.1% with hypertension, 8.3% with type 2 diabetes, and 20.9% with MetS. Night shift work was associated with an increased risk of obesity and abdominal obesity in women (RR = 1.99, 95% CI: 1.08 to 3.65 and RR = 1.60, 95% CI: 1.07 to 2.56, respectively) but not in men. Women also showed an elevated risk of diabetes (RR = 2.69, 95% CI: 1.49 to 4.86), whereas no significant relationship was identified in men. Night shift work was not significantly associated with hypertension and MetS in either men or women. **CONCLUSION:** Women working night shifts may benefit from targeted interventions for cardiometabolic health, particularly in managing weight and preventing diabetes, while men did not exhibit similar associations.

[Lien vers l'article](#)

Association of circadian rhythms, MTNR1B, BMAL1, BMAL2, and CRY2 gene polymorphisms and their interactions with type 2 diabetes in coal miners.

Li Q, Cao H, Zhang X, Yuan J, Zhang C. *Front Endocrinol (Lausanne)*. 2026;17:1567465.

OBJECTIVE: To investigate the interaction between circadian rhythm disorders and related gene polymorphisms (SNPs) in the risk of developing type 2 diabetes (T2DM). **METHODS:** Cross-sectional study included 4,070 coal miners who underwent occupational health examinations between 2017 and 2018. We constructed comprehensive indicators of circadian rhythm disorder (CICRD) using factor analysis. In case-control analysis, 424 cases and 464 controls were randomly selected from 3,878 male coal miners. Logistic regression models were used to examine the relationship between CICRD, selected SNPs, and T2DM. Gene-gene and gene-environment interactions were evaluated using log-linear models and the generalized multifactor dimensionality reduction (GMDR) method. **RESULTS:** The CICRD captures 79.771% of seven circadian rhythm disorder assessment indicators. Higher CICRD and variants at rs10830963 (MTNR1B), rs7958822 (BMAL2), and rs11605924 (CRY2) were associated with an increased risk of T2DM ($P < 0.05$). A CICRD score ≥ 0.2782 with each high-risk SNP (rs10830963, rs1387153, rs7958822, rs11605924) significantly increased T2DM risk ($P < 0.05$). The five-factor interaction model (rs10830963-rs7950226-rs7958822-rs11605924-CICRD) based on the GMDR method significantly increased T2DM risk in the full dataset ($P < 0.05$). **CONCLUSION:** The interaction between circadian rhythm disruption and high-risk SNP genotypes further amplifies the risk of T2DM among coal miners. Notably, the five-factor interaction model (rs10830963-rs7950226-rs7958822-rs11605924-CICRD) provides a standardized basis for assessing circadian rhythm disruption, screening

high-risk populations, and identifying that high-risk genetic combinations are unsuitable for shift work, offering scientific evidence for the precision prevention of T2DM in coal miners.

[Lien vers l'article](#)

Association between shift work and periodontal disease in the Japanese manufacturing industry: A propensity score analysis.

Okubo H, Soyama Y, Kaneko N, Takehara S, Sakurai M, Nakagawa H, et al. *Community Dent Health*. 2026 Mar 15;265539x261433765.

Shift work is common in the manufacturing industry and is associated with an increased risk of chronic disease due to irregular lifestyles. However, the dental health status of shift workers has rarely been assessed or reported. Therefore, this study examined the relationship between shift work and periodontal disease using data from dental and medical examinations conducted among individuals employed in the manufacturing industry. This cross-sectional study analyzed data from workers aged 40-64 years at a Japanese manufacturing facility who underwent dental examinations in 2023 and medical examinations in 2022. The examined variables included periodontal pocket depth (PPD), work schedules, general health status, and oral hygiene behavior. To examine the association between shift work and periodontal disease, we performed logistic regression and propensity score analyses separately for men and women using PPD ≥ 4 mm as the dependent variable. The study included 1866 daytime workers (1159 men and 707 women) and 468 shift workers (434 men and 34 women). Among men, shift workers had a significantly higher rate of PPD ≥ 4 mm than daytime workers in both analyses. However, no significant relationship between shift work and PPD ≥ 4 mm rates was observed among women in either analysis. These findings suggest a significantly higher likelihood of periodontal disease among male shift workers in the Japanese manufacturing industry.

[Lien vers l'article](#)

Shifts with Nights and Migraine Prevalence Among Nurses: A Systematic Review and Meta-Analysis.

Gómez-Torres P, Ruger-Navarrete A, Lasso-Olayo L, Blázquez-Ornat I, Peña-Otero D, Galarreta-Aperte S. *Healthcare (Basel)*. 2026 Mar 19;14(6).

Background: Fixed night work and rotating schedules including nights may contribute to migraine via sleep disruption and circadian misalignment, but evidence is inconsistent and definitions vary. This systematic review and meta-analysis compared past-year migraine prevalence in nurses working night-inclusive schedules versus day-only or non-night schedules. Methods: Following PRISMA 2020 and registered in PROSPERO (CRD420261304288), we searched PubMed, Scopus, Web of Science, CINAHL, and the Cochrane Library from inception to 3 February 2026 (English/Spanish). Observational studies in nurses (≥ 18 years) reporting past-year migraine prevalence by shift pattern were eligible. All included studies assessed past-year prevalence; pooled PRs reflect 1-year prevalence. Crude prevalence ratios (PRs) were calculated from contingency tables and pooled quantitatively. Risk of bias was assessed with the JBI prevalence checklist. Results: We identified 54 records; 4 studies were included (N = 3843) of which 3323 participants contributed to the comparative meta-analysis because complete disaggregated data were available to construct contingency tables. The pooled association between night-inclusive schedules and migraine prevalence was not statistically significant (PR = 0.95, 95% CI 0.82-1.10; $I^2 = 0\%$). Secondary intensity contrasts were inconclusive (high vs. low: PR = 1.24, 95% CI 0.46-3.36; high vs. zero nights: PR = 0.85, 95% CI 0.38-1.93). Conclusions: Current nurse-specific evidence does not show a statistically significant difference in migraine prevalence between night-inclusive and non-night schedules; however, the small evidence base and limited generalizability preclude firm conclusions. Future longitudinal studies are needed to clarify this association.

[Lien vers l'article](#)

Weekly Working Hours and Serum Vitamin D 3 Levels Among Korean Wage Workers : Evidence From KNHANES 2022-2023.

Cho YH, Ahn J. *J Occup Environ Med.* 2026 Apr 1;68(4):e282-e7.

OBJECTIVE: To examine whether weekly working hours are associated with serum vitamin D levels among Korean wage workers. **METHODS:** This cross-sectional study used data from 2988 adults in the 2022-2023 Korea National Health and Nutrition Examination Survey. Serum 25(OH)D 2 and 25(OH)D 3 were measured by liquid chromatography-mass spectrometry. Associations with weekly working hours were analyzed using multivariable linear regression, adjusting for age, sex, education, and occupation. **RESULTS:** Each additional weekly working hour was associated with a 0.057-ng/mL decrease in 25(OH)D 3 levels, with no significant association for 25(OH)D 2 . The inverse association was stronger among white-collar, highly educated, and obese workers. **CONCLUSIONS:** Long working hours are significantly linked to lower serum vitamin D 3 levels. These findings highlight working hours as a modifiable occupational determinant of vitamin D deficiency, particularly in indoor or white-collar settings.

[Lien vers l'article](#)

Inflammatory marker dynamics in shift work sleep disorder: a data-driven approach among rotating shift workers.

Bao Y, Liang B, Zhan T, Shen G, Sun D, Lin J, et al. *Front Neurosci.* 2026;20:1764454.

BACKGROUND: Shift work sleep disorder (SWSD) negatively affects overall health and quality of life. This cross-sectional study aimed to elucidate the association of SWSD with blood cell counts (BCCs) and related inflammatory indices over a period of 3 years. **METHOD:** This retrospective cross-sectional study involved rotating shift workers. Linear mixed-effects models were applied to examine the associations between group stratification (based on sex and sleep status) and longitudinal trajectories of inflammation indices. **RESULTS:** Participants with SWSD (regardless of sex) showed significantly steeper increases in neutrophil levels during the second year (female: $\beta = 0.079$, $p = 0.030$; male: $\beta = 0.076$, $p = 0.032$). By the third year, marked changes were observed in monocyte levels, although these were not statistically significant in mixed models. Composite inflammatory indices, including the neutrophil-to-lymphocyte ratio, monocyte-to-lymphocyte ratio, systemic immune-inflammation index, systemic inflammation response index, systemic inflammatory composite index, and neutrophil-to-monocyte ratio, exhibited consistent and significant upward trends in the SWSD group (all $p < 0.05$, adjusted for false discovery rate). Notably, the platelet-to-lymphocyte ratio showed a sex-specific increase only in males with SWSD ($\beta = 7.310$, $p = 0.006$). **CONCLUSION:** Long-term rotating shift workers with sleep disorders exhibited fluctuating trends in BCCs and related inflammatory indices over time, with neutrophil and monocyte counts showing increases. These patterns suggest that dynamic alterations in BCCs and related inflammatory indices are associated with circadian disruption among rotating shift workers and may have potential relevance for future risk stratification and monitoring.

[Lien vers l'article](#)

Craving under pressure: the interplay between hedonic hunger, mental health, and ultra-processed food consumption in shift-workers.

Akin E, Bayram HM, Ozturkcan A. *Front Public Health.* 2026;14:1757016.

BACKGROUND: Shift-work is linked to irregular eating patterns and greater ultra-processed food (UPF) intake, potentially driven by hedonic hunger and psychological distress. This study aimed to examine the relationship between hedonic hunger, UPF consumption, and mental health among shift-working

healthcare professionals. **METHODS:** In this cross-sectional analytical observational study, 326 healthcare shift-workers (66.9% female) completed questionnaires including sociodemographic details, the Power of Food Scale (PFS-Tr), the Single-Item Food Choice Questionnaire (FCQ), the Depression Anxiety Stress Scale (DASS-21), and the short screening questionnaire for highly processed food consumption (sQ-HPF). **RESULTS:** 63.2% were categorized as high-level UPF consumers. PFS-Tr scores correlated positively with UPF intake, FCQ, depression, stress, and anxiety. Hedonic hunger was significantly associated with UPF consumption directly ($\beta = 0.112$) and indirectly through stress ($\beta = 0.209$). **CONCLUSION:** Hedonic hunger was associated with UPF intake in shift-workers through psychological distress and food motivation.

[Lien vers l'article](#)

Association Between Shift Work and Metabolic Alterations: Possible Contributing Factors.

Leso V, Dolce P, Greco M, Durante A, Di Lauro L, Pedata P, et al. *Saf Health Work*. 2026 Mar;17(1):134-41.

BACKGROUND: Shift work (SW) can contribute to metabolic disorders affecting biological rhythms, inducing sleep deprivation, decreasing the resting metabolic rate, and changing dietary habits and eating behaviors. This study aims to assess the relationship of SW on physical and metabolic parameters, including the metabolic syndrome (MetS), and the contributing role of sleep quality, chronotype, chrononutrition, and the Mediterranean diet. **METHODS:** Shift and nonshift workers underwent medical examinations and lab tests. MetS was diagnosed using the National Cholesterol Education Program's Adult Treatment Panel III criteria. The Pittsburgh Sleep Quality Index, Chrononutrition Profile, Morning-Eveningness, and Prevention through Mediterranean Diet questionnaires were used to explore factors potentially affecting the development of metabolic disorders. **RESULTS:** Shift ($n = 172$) and nonshift workers ($n = 177$), primarily employed in healthcare and social activities and in the education and administrative sectors, were enrolled. Mean systolic blood pressure levels were significantly higher in shift workers compared to the daytime counterpart (121.0 ± 12.9 vs. 117.5 ± 13.2 mmHg, $p = 0.013$). MetS was significantly more frequent in the former group (25.6% vs. 13.7%, $p = 0.006$). Higher percentages of shift workers compared to daytime workers, had poor quality of sleep (37.8% vs. 27.1%, $p = 0.033$), an evening chronotype (14% vs. 6.8%, $p = 0.010$), and high adherence to the Mediterranean diet (65.7% vs. 43.5%, $p < 0.001$), while no differences emerged for the chrononutrition profile. SW represents a risk factor for MetS, although its development results from the interaction of personal lifestyle, dietary habits, chronotype, chrononutrition, sleep quality, and occupational factors. **CONCLUSION:** In the perspective of the Total Worker Health® approach to workplace safety, health, and well-being, such an interplay should be addressed.

[Lien vers l'article](#)

Associations between hedonic hunger, diet quality, mindful eating, sleep quality, and occupational stress in shift and non-shift hospital employees.

Ak S, Altun HK. *J Health Psychol*. 2026 Mar 12:13591053261426792.

This cross-sectional study investigates the association between hedonic hunger and lifestyle and nutritional factors among hospital employees with different work schedules. A total of 220 healthcare professionals participated. Hedonic hunger, mindful eating, sleep quality, occupational stress, and diet quality were evaluated using validated scales. Compared to non-shift workers, those on rotating shifts had significantly higher levels of hedonic hunger ($p = 0.013$) and job stress ($p < 0.001$), alongside lower mindful eating scores ($p < 0.001$). Hedonic hunger was moderately correlated with poorer sleep quality ($r = 0.335$, $p < 0.001$) and increased job stress ($r = 0.333$, $p < 0.001$). Logistic regression analysis revealed that poor sleep quality increased the likelihood of elevated hedonic hunger by 27.8%,

retaining significance after adjusting for age and sex (24.7%). Job stress was associated with a 3.0% increase in hedonic hunger risk. These findings highlight the need to integrate stress reduction, mindful eating, and sleep optimisation strategies, especially for shift-working healthcare professionals.

[Lien vers l'article](#)

Comment on "Associations of Long-Term Night Shift Work With Incident Irritable Bowel Syndrome: A Population-Based Cohort Study".

Tao X. *J Gastroenterol Hepatol*. 2026 May;41(5):1633-4.

[Lien vers l'article](#)

Cancers

Aucun article dans ce bulletin.

Risque routier, accidentologie

Aucun article dans ce bulletin.

RPS et QVT

Examining the Consequences of Night Shifts on Job Satisfaction and Quality of Life (QoL) Among Palestinian Nurses.

Shouli M, Shouli K, Soluman R, Bsharat T, Abdraboh H, Barabrah R. *SAGE Open Nurs*. 2026 Jan-Dec;12:23779608261435840.

INTRODUCTION: Night-shift work is essential to hospital continuity but may disrupt circadian rhythms, impair recovery, and reduce nurses' well-being, particularly in resource-limited health systems. Evidence from Palestine remains limited. **OBJECTIVES:** To examine the association between night-shift frequency and job satisfaction, assess differences in quality of life (QoL) domains by night-shift exposure, and identify predictors of QoL among Palestinian nurses using a Job-Demands-Resources perspective. **METHODS:** A cross-sectional correlational study was conducted among registered nurses (N = 186) recruited from three public hospitals (Al-Watani Hospital, Rafidia Hospital, and Tubas Hospital; April-May 2025). Participants completed the Job Satisfaction Survey and WHOQOL-BREF. Night shift frequency was categorized as <6 versus ≥6 night shifts/month. Group differences were tested using independent t-tests, and multiple linear regression examined predictors of overall QoL (sleep disturbance, perceived workload, age, and gender). **RESULTS:** Nurses working ≥6 night shifts/month reported lower job satisfaction (3.34 ± 0.58 vs. 3.89 ± 0.45 ; $p < .001$) and poorer QoL across physical, psychological, social, and environmental domains (all $p \leq .006$). In regression analysis, sleep disturbance ($\beta = -0.47$, $p < .001$) and perceived workload ($\beta = -0.31$, $p < .001$) were significant predictors and explained 42% of the variance in overall QoL; age and gender were not significant. **CONCLUSION:** Frequent night-shift exposure among Palestinian nurses is associated with lower job satisfaction and reduced QoL. Interventions targeting sleep disruption and workload-such as ergonomic scheduling, adequate recovery time, and fatigue-risk management-may improve nurse well-being and retention.

[Lien vers l'article](#)

Enhancing Patient Safety at Night With the Night Resource Nurse.

LeBlanc Arrington C, Voight J, Rivers J, Eggert N, Gilroy H. *J Nurs Adm.* 2026 Apr 1;56(4):178-80.

Night shift nurses face unique operational challenges that affect care quality and staff well-being, including limited resources, high patient turnover, and complex cases. These factors can lead to inefficiencies and safety concerns. Implementing a night shift resource nurse improves operations by enhancing patient care, increasing shift-specific support, reducing emergencies, and boosting staff satisfaction and efficiency. This model offers a targeted solution to improve outcomes during overnight hours.

[Lien vers l'article](#)

The Experiences of the Nursing Professional Development Practitioner on the Night Shift-A Qualitative Study.

Foley JA, Iheduru-Anderson K, Costello K. *Dimens Crit Care Nurs.* 2026 May-Jun 01;45(3):162-9.

BACKGROUND: The nursing shortage continues to grow and is expected to intensify in the near future. Health care organizations need to implement strategic ways to support nurses. First-year new graduate nurses have a high turnover rate. It is critical to have educational support on the night shift, where most new nurses begin their careers. **OBJECTIVE:** The study aimed to gain insight into how nursing professional development (NPD) practitioners or nursing educators who work the night shift perceive their roles and explore their experiences. Limited literature exists on having NPD on the night shift, adding to the importance of this objective. **METHODS:** A qualitative descriptive design was used for this study, using 2 focus group interviews and thematic analysis. **RESULTS:** Three major themes emerged: role confusion, belongingness and community, and job satisfaction. **DISCUSSION:** NPD practitioners are in a great position to build a sense of community and belonging among new graduate nurses, which may make the new nurses more successful within their health care institutions. Addressing potential barriers and fostering the positive aspects of the NPD role on the night shift may lead to better nursing retention.

[Lien vers l'article](#)

Fatigued Teams: Night Work Impairs Team Performance and Cohesion.

Greer E, Owen M, Roma PG, Yates C, Grosser L, Hursh SR, et al. *Sleep.* 2026 Mar 12.

STUDY OBJECTIVES: Distributed teams working across the night in safety-critical industries experience stressful and fatiguing conditions, often compounded by circadian misalignment. While this disruption is known to impair individual neurobehavioral functioning, its impact on team-level processes remains underexplored. Hence, the aim of this study was to examine how night work impacts distributed team performance and cohesion. **METHODS:** N=24 healthy, young individuals (M=25.38, SD=6.39 years, 13f) participated in a laboratory study undertaking one night of simulated night work. Through the night, distributed team members completed COHESION, a computer-based team performance task, at 18:00h, 22:00h, 02:00h, 06:00h and 10:00h. This task assessed individual cooperation, productivity and score, as well as team performance and dynamics. Measures of alertness and team cohesion were also administered. **RESULTS:** There were significant differences across time of night for productivity, team performance, and cohesion ($p < .05$, $\eta^2 > 0.14$), with poorest outcomes at 06:00h. There were also significant differences across time of night for cooperation and team dynamics ($p < .05$, $\eta^2 > 0.14$), with deficits seen at 06:00h and 10:00h. **CONCLUSIONS:** This study found clear degradation in team outcomes during night work, particularly during the circadian low. At this time of the night, team members exhibited diminished alertness and productivity, leading to poorer team performance and cohesion. As such, the circadian system played a crucial role in modulating team performance and

cohesion. Additionally, cooperation and team dynamics eroded across the night, persisting beyond the circadian low. These findings highlight the vulnerability of teams working at night, especially in safety-critical industries where effective teamwork is essential. Statement of Significance Night-shift workers in safety-critical settings experience well-known impairments in alertness, yet the consequences of this biological vulnerability for teamwork have been largely overlooked. This study shows that team performance and cohesion decline markedly during the early-morning hours when the circadian system promotes sleep, revealing a critical window in which teams are most at risk of reduced effectiveness. Importantly, disruptions to cooperation and team interactions persisted beyond this period, indicating that fatigue had enduring effects on overall team functioning. These findings highlight the need to consider biological timing when planning overnight operations and encourage future work aimed at developing strategies to sustain cooperative team functioning during and after periods of high fatigue.

[Lien vers l'article](#)

Santé psychique

Comparative Effects of Music Therapy Versus White Noise on Sleep Quality and Psychological Resilience of Night-Shift Nurses: Retrospective Cohort Study.

Zhang W, Li Y, Li F. *Noise Health*. 2026 Jan-Feb 01;28(130):62-71.

OBJECTIVE: This study aimed to compare the therapeutic effects of music therapy and white noise on sleep quality and psychological resilience enhancement in night-shift nurses. **METHODS:** A quasi-experimental retrospective analysis was performed on 100 night-shift nurses enrolled in hospital-based health management programs between April 2024 and April 2025. The participants were categorised by program type: the music group (n = 52) received music-based care from April 2024 to September 2024, and the white noise group (n = 48) underwent white noise exposure from October 2024 to April 2025. The following were assessed before the program and at 4-week post-implementation: sleep quality (Pittsburgh Sleep Quality Index [PSQI]), circadian flexibility (Circadian Type Inventory-11 [CTI-11] with Flexibility/Rigidity [FR] and Languidness/Vigorousness [LV] subscales), psychological resilience (10-item Connor-Davidson Resilience Scale [CD-RISC-10]), occupational burnout (Maslach Burnout Inventory-General Survey [MBI-GS]) and emotional labour management (Emotional Labor Scale [ELS]). An independent sample t-test was used to compare the differences between groups, and the effect size of the differences was quantified by Cohen's d. **RESULTS:** At 4-week post-implementation, the white noise group demonstrated significantly lower PSQI scores ($P < 0.05$), CTI-11 LV subscale scores ($P < 0.05$), CD-RISC-10 scores ($P < 0.05$) and diminished genuine emotion expression dimension scores on the ELS ($P < 0.05$) compared with the music group. Conversely, the white noise group had significantly higher CTI-11 FR subscale scores ($P < 0.05$), MBI-GS scores ($P < 0.05$) and surface acting plus deep acting dimension scores on the ELS ($P < 0.05$) compared with the music group. **CONCLUSION:** Music therapy and white noise exposure effectively enhance sleep quality, circadian adaptability, psychological resilience, occupational burnout recovery and emotional labour regulation in night-shift nurses. White noise demonstrates greater efficacy for sleep quality and circadian rhythm optimisation. Music therapy provides superior psychological resilience enhancement, burnout reduction and emotional labour management.

[Lien vers l'article](#)

Troubles cognitifs et de la vigilance

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[Lien vers l'article](#)

The night shift brain: functional network reorganization in sleep-deprived medical staff.

Zeng Z, Guo D, Liu L, Ou F, Du T, Nie L, et al. *Front Hum Neurosci*. 2026;20:1757604.

BACKGROUND: Medical staff frequently experience sleep deprivation, impacting both their health and patient care quality. Understanding brain network changes under sleep deprivation can guide preventive strategies. This study aims to determine how total sleep deprivation (TSD) alters brain network topology in medical professionals. **METHODS:** Using graph-theory analysis of resting-state fMRI data from 36 medical staff, we assessed global and local brain network properties following TSD and normal sleep (rested wakefulness, RW), examining topological changes and their correlation with cognitive performance. **RESULTS:** Small-world properties were present in both conditions, but the TSD condition showed higher clustering coefficients ($p = 0.044$). Key nodal changes included increased degree centrality in the right superior medial frontal gyrus ($p = 0.0006$) and decreased nodal efficiency in the left fusiform gyrus ($p = 0.0004$). Using the right superior medial frontal gyrus as ROI, enhanced functional connectivity (zFC) was observed in multiple bilateral frontal/temporal regions (peak $t > 4.5$). These topological changes correlated with cognitive deficits: reduced Digit Symbol Test (DST) scores ($p < 0.001$), prolonged Number Connection Test-A (NCT-A) and Line Tracing Test (LTT) completion times ($p < 0.05$), while increased clustering coefficients (Cp) positively correlated with NCT-A/SDT performance changes ($r = 0.341-0.411$, $p < 0.05$). And older staff exhibited greater vulnerability in global network efficiency and path length ($r = -0.352$, $r = 0.390$, $p < 0.05$). **CONCLUSION:** By identifying key brain network nodes affected by TSD, this study provides insights into neural adaptations under

TSD, offering an evidence-based framework for developing both therapeutic interventions and preventive strategies to mitigate cognitive and health impacts in high-risk populations.

[Lien vers l'article](#)

Biphasic sleep in shift workers and its related outcomes: a scoping review protocol.

Moen LV, Lie JS, Jørgensen IL, Frøjd L, Pallesen S, Matre D. *BMJ Open*. 2026 Mar 18;16(3):e115567.

INTRODUCTION: Shift work is associated with disrupted sleep, circadian misalignment and increased risks of adverse health, performance and safety outcomes. Although recommendations for shift workers typically focus on obtaining one long sleep period, many shift workers divide sleep into two episodes, referred to as biphasic sleep. Biphasic sleep may help mitigate sleep loss-related impairments, yet its prevalence, characteristics and potential benefits for shift working populations remain unclear. Existing reviews have examined sleep duration, mental health, or the consequences of shift work broadly, but none have specifically mapped evidence comparing biphasic and monophasic sleep between shifts. This scoping review will identify and summarise the available literature on biphasic sleep among adult shift workers. In addition, we will describe the outcomes and subsequently highlight any possible gaps to inform future research. **METHODS AND ANALYSIS:** This review will follow the Joanna Briggs Institute methodology for scoping reviews and be reported in accordance with the preferred reporting items for systematic reviews and meta-analyses extension for scoping reviews guidelines. Biphasic sleep is defined as two distinct sleep episodes within a 24-hour period between work shifts, including two similarly timed sleep periods or one longer sleep combined with a shorter nap. A comprehensive search will be conducted in April 2026 in MEDLINE, Embase, PsycINFO, Web of Science and CENTRAL using controlled vocabulary (eg, Medical Subject Headings) and free-text terms related to shift work and split sleep. Peer-reviewed primary research examining biphasic sleep among adult shift workers will be included, and studies focusing solely on naps during work hours will be excluded. Two reviewers will independently screen titles/abstracts and full texts, with discrepancies resolved through discussion or by consulting a third reviewer. Data will be extracted using a standardised template including study characteristics, sleep parameters and reported outcomes. Results will be summarised descriptively and presented in tables and evidence maps. No statistical synthesis will be performed. **ETHICS AND DISSEMINATION:** This scoping review will synthesise data from articles published in peer-reviewed journals. As no primary data will be collected and no human participants will be involved, the review is exempted from formal ethical approval. Findings will be disseminated in terms of a peer-reviewed publication and will inform future systematic reviews on sleep strategies among shift workers. **TRIAL REGISTRATION NUMBER:** This project is registered with the Open Science Framework accessible at 10.17605/OSF.IO/WY7KJ.

[Lien vers l'article](#)

Drilling down on roster design: comparing fly-in fly-out roster patterns in the West Australian mining industry.

Smithies TD, Vincent GE, Ferguson SA, Maisey G, Fraser H, Dunican IC. *Ann Work Expo Health*. 2026 Feb 2;70(2).

Roster schedule design is integral to an effective Fatigue Risk Management System, and can impact worker health, safety, employee satisfaction, psychological health, productivity, and cost. However, fatigue-based roster scheduling decisions are frequently made using little or no supporting data. This analysis aims to provide objective fatigue-risk data for roster schedules commonly used within Western Australian mining fly-in-fly-out operations. Ten of the most common roster schedules within the abovementioned context were identified, as were two highly pertinent factors: day/night shift start/finish times, and commute duration to/from individuals' home airports. In total, 150 combinations of roster schedules, shift start/finish times, and commute durations were analyzed using

the Fatigue Audit InterDyne (FAID[®], Interdynamics Pty Ltd) Standard biomathematical model. Through this analysis, we show that earlier shift start/finish times increase predicted fatigue-risk for day shifts and decrease predicted fatigue-risk for night shifts. Additionally, when finishing a roster schedule on night shifts, much of the commute home from the airport may be at a high fatigue-risk. This risk further increases when the roster includes later finish times. This project presents a comprehensive data-driven comparison of fly-in fly-out shifts and roster schedules specific to Western Australian fly-in fly-out mining operations. The results from this novel analysis should not be used in a prescriptive manner; however, they aim to provide new insight that may assist decision-making around roster scheduling for fly-in fly-out mining operations globally.

[Lien vers l'article](#)

HA comme facteur de risque

Généralités et prévention

Surgery as a greedy job: The valorization of the worker's professionalism for women in surgery.

Bellini MI, Passalacqua P. *Surg Open Sci.* 2026 Apr;31:8-16.

INTRODUCTION: Greedy job is referred to a condition in which companies and/or institutions require employees to work beyond agreed-upon working hours or beyond agreed standards. With the current shortage of surgeons and increased number of women entering a surgical career, it is fundamental to consider their needs, distress, and motivation factors to implement the surgical workforce. **METHODS:** A systematic search was performed to review literature addressing working hours disrespect and greedy jobs in surgery, aiming to report the current evidence with regards to the different impact on general surgeons. **RESULTS:** Greedy job in surgery is common and its consequences are predominantly affecting female gender and younger generation. Prolonged working hours were associated with burnout incidence, reduced time for research and eventually jeopardizing education. Furthermore, job satisfaction, earning and career progression discrepancy between genders, as well as the risk for health and wellness with secondary effects on parenthood and childcare were predominantly hindering women surgeons. **CONCLUSIONS:** Sustainable and flexible working hours could represent a valuable opportunity to attract future generations into surgery. This is particularly important for the recruitment of women, who historically have more frequently faced the negative consequences of greedy jobs. Technology might be in the future of aid to overcome space and time constraints, always with the goal to protect rest time, personal life, and mental and physical health, from a perspective we might call "anti-greed".

[Lien vers l'article](#)

Activités physiques

Aucun article dans ce bulletin.

Autres pathologies

Aucun article dans ce bulletin.

Cancers

Aucun article dans ce bulletin.

Risque routier, accidentologie

Working Hour Characteristics and Risk of Occupational Accidents - A Case-crossover Study of the Retail Sector.

Ropponen A, Hirvonen M, Poutanen J, Säynäjäkangas P, Haukka E. *Saf Health Work.* 2026 Mar;17(1):64-9.

BACKGROUND: The purpose was to investigate the association between the working hour characteristics of irregular working hours and the first incident occupational accident in the retail sector. **METHODS:** Employer-owned register data of daily working hours and the first incident

occupational accidents in 2021-2023 were used. The final sample of 470 employees was analyzed using a case-crossover design to obtain odds ratios (ORs) with 95% confidence intervals (95% CI) for the seven-day periods of working hours preceding the accidents. RESULTS: The weekly working hours (OR: 1.02-1.03, 95% CI: 1.00-1.08), shift length (OR: 10.12-12.47, 95% CI: 4.73- 32.9), and evening shifts (OR: 1.02, 95% CI: 1.01-1.04) were associated with an increased likelihood of occupational accidents among both part- and full-time employees. Early morning (OR: 1.03, 95% CI: 1.01-1.04) and morning (OR: 1.02, 95% CI: 1.01-1.03) shifts, and the percentage of short (<4 hour) shifts (OR: 1.06, 95% CI: 1.01-1.12) increased the likelihood of occupational accidents among part-time employees, and the number of consecutive work shifts (OR: 1.55, 95% CI: 1.04-2.30) among full-time employees. CONCLUSION: Working evenings and the length of work shifts, or weekly working hours, even for 7 days, were associated with an increased likelihood of occupational accidents among both part-time and full-time employees. Since early morning and morning shifts showed an increased risk among part-time employees, special attention should be paid to them. Thus, shift scheduling in the retail sector merits attention to regularity and avoidance of long or early shifts, supplemented with safety instructions to ensure the health and safety of employees.

[Lien vers l'article](#)

Occupational health and safety compliance in Turkish fishing vessels: a regulatory assessment.

Peker VC, Özvarol Y. *Int Marit Health*. 2026;77(1):23-30.

BACKGROUND: Commercial fishing remains one of the most hazardous occupations globally, with smallscale fleets exhibiting persistent safety challenges. In Türkiye, fishing operations are characterized by low regulatory compliance, insufficient training, and fatigue-related risks. OBJECTIVES: This study assessed occupational health and safety (OHS) compliance levels among Turkish fishing vessel crews and identified key predictors of safety outcomes across vessel size categories. MATERIAL AND METHODS: A cross-sectional study was conducted (June-August 2018) across Türkiye's Aegean, Marmara, and Black Sea regions, involving 356 crew members from 180 vessels. Data collection included structured questionnaires, observational checklists, and interviews. Analyses employed descriptive statistics, χ^2 tests, independent t-tests, and multiple linear regression (SPSS v26). RESULTS: Of all participants, 38.8% reported at least one occupational accident in the past year. The most frequent injuries were cuts (12.9%), falls (9.3%), and equipment-related trauma (5.9%). The main contributing factors were the hasty work pace in the workplace (52.2%), inadequate training (28.9%), and fatigue due to long working hours (19.0%). PPE compliance was low at 18%, and only 27% of participants had received formal safety training. A significant association was found between vessel size and accident occurrence ($\chi^2 = 12.45$, $p = 0.002$), with smaller vessels having a significantly higher accident risk than larger vessels. Workers involved in accidents reported longer working hours ($M = 14.3$, $SD = 1.8$) than their counterparts ($M = 13.1$, $SD = 2.2$; $p < 0.001$). Regression analysis identified formal training ($\beta = 0.35$, $p < 0.001$), education level ($\beta = 0.21$, $p < 0.001$), and vessel size ($\beta = 0.14$, $p = 0.01$) as significant predictors of OHS compliance ($R^2 = 0.29$). CONCLUSIONS: Occupational health and safety compliance in Türkiye's fishing sector remains inadequate, particularly for small-scale vessels. Prioritizing training expansion, work-hour regulations, and targeted support for high-risk fleets is essential.

[Lien vers l'article](#)

RPS et QVT

Effects of Reducing the Number of Quick Returns (< 11 h off Between Shifts) on Turnover Intention and Job Satisfaction: a Cluster-Randomized Controlled Trial Among Healthcare Workers.

Sunde E, Djupedal ILR, Vedaa Ø, Pallesen S, Bjorvatn B, Waage S, et al. *J Occup Rehabil*. 2026 Apr 3.

PURPOSE: To investigate the effects of reducing quick returns (i.e., < 11 h between shifts) on turnover intention and job satisfaction, and to explore potential moderating factors. **METHODS:** A cluster-randomized controlled trial was conducted at a Norwegian university hospital, where 66 units were randomly assigned to an intervention or control group. Participants, comprising healthcare workers (n = 1314; 85.2% female) contracted to ≥ 50% of full-time positions, were followed over six months. The intervention group was assigned to a work schedule with fewer quick returns, while the control group maintained its level of quick returns. Turnover intention and job satisfaction were assessed at baseline and follow-up using validated self-report measures. Linear mixed models were used to evaluate intervention effects and potential moderators. **RESULTS:** The intervention group halved the number of quick returns from baseline (mean = 13.2, SD = 8.7) to follow-up (mean = 6.7, SD = 6.0), while the control group showed minimal change (baseline mean = 13.2, SD = 8.7; follow-up mean = 12.0, SD = 9.3). No overall effects were found on turnover intention and job satisfaction. However, moderator analyses revealed that among workers aged 30-41 years, the intervention reduced turnover intention (p = .003, Cohen's d = -0.54), primarily observed among workers aged 30-41 years with no children at home, and improved job satisfaction (p = .003, Cohen's d = 0.54). Additionally, beneficial effects on turnover intention were found among workers with commuting times exceeding 45 min. **CONCLUSIONS:** Reducing quick returns improved job satisfaction and reduced turnover intention in specific subgroups. These findings highlight the importance of considering factors such as age, family status, and commuting time, when planning shift schedules in healthcare settings. **TRIAL REGISTRATION:** ClinicalTrials.gov identifier: NCT04693182 (registered 12/31/2020).

[Lien vers l'article](#)

Santé psychique

Prevention of burnout syndrome in physicians: a systematic review and meta-analysis.

Krebs L, Jung L, Arrich J. *Wien Klin Wochenschr*. 2026 Mar;138(5-6):167-78.

BACKGROUND: Physicians are at high risk of developing burnout and several studies have evaluated burnout prevention programs. This meta-analysis and systematic review aimed to assess the effectiveness of burnout prevention programs and to evaluate whether one approach is superior to other programs. **PATIENTS, MATERIAL AND METHODS:** The methods were based on the Cochrane Handbook of Systematic Reviews. We searched the literature in five medical databases from October 2019 to June 2022. We included randomized controlled trials that examined the effect of burnout prevention programs on physicians. **RESULTS:** A total of 22 studies were included in our analysis, with 20 studies targeting individual interventions and 2 studies targeting structural interventions. Mindfulness-based stress reduction (MBSR) or similar programs were the most common interventions. The main analysis showed a significant reduction of burnout in the intervention groups with an standardised mean difference (SMD) of -0.32 (95% confidence interval, CI: -0.41 to -0.22), which suggests a small to moderate effect. MBSR did not appear superior to other interventions in the subgroup analysis SMD -0.25 (95% CI: -0.48 to -0.02) versus SMD -0.61 (95% CI: -1.19 to 0.03). **DISCUSSION:** This analysis shows that individual burnout prevention programs may reduce burnout rates in physicians; however, the effect was relatively small. The effect was reduced even further when removing studies causing severe heterogeneity and those with a high risk of bias. Future research

programs should focus on structural programs that address the lack of mentoring, rising administrative tasks, or long working hours, which may be more effective in reducing burnout in physicians.

[Lien vers l'article](#)

Troubles cognitifs et de la vigilance

Association of work-time control with sleep quality and sleep duration in South Korea.

Lee HE, Min J, Kang MY, Cho SS. *J Occup Health*. 2026 Jan 6;68(1).

OBJECTIVES: Work-time control (WTC) may influence sleep health by allowing workers to align schedules with their personal needs, but findings have been inconsistent. In South Korea, where long working hours and low autonomy are prevalent, further investigation is required. This study aimed to examine the association between WTC, sleep quality, and sleep duration in South Korean workers. **METHODS:** Cross-sectional data from the fifth wave of the Korean Work, Sleep, and Health Study, a nationwide panel survey of South Korean workers aged 19-70, were used. The analytical sample included 5183 paid employees. WTC was categorized as low or high, and sleep quality was measured by the Pittsburgh Sleep Quality Index, with poor sleep quality defined as a score ≥ 11 . Short sleep duration was defined as < 7 hours per night. Poisson regression was used to estimate the prevalence ratios (PRs) after adjusting for age, sex, education, income, occupation, working hours, and shift work. **RESULTS:** Low WTC was associated with a higher prevalence of poor sleep quality (PR: 1.39; 95% CI: 1.09-1.77), adjusting for age, sex, education, income, occupation, working hours, and shift work. No significant association was found between WTC and short sleep duration. In the stratified analysis of weekly working hours among employees working 40-52 hours per week, there was a significant association between low WTC and poor sleep quality. **CONCLUSIONS:** Lower WTC was associated with poorer sleep quality. Improving work-time autonomy may enhance sleep, particularly among workers with moderate weekly working hours (40-52 hours).

[Lien vers l'article](#)

Travail posté et de nuit facteur de risque

Généralités et prévention

Aucun article dans ce bulletin.

Activités physiques

Aucun article dans ce bulletin.

Autres pathologies

Metabolic Syndrome, Cardiovascular Risk, and Health-Related Quality of Life Among Police Officers in Madeira: A Cross-Sectional Occupational Health Study.

Pina J, Santos V, Massuça LM. *Healthcare (Basel)*. 2026 Mar 17;14(6).

Background/Objectives: Police work has been associated with increased cardiometabolic risk due to occupational stress, shift work, and lifestyle factors. This study aimed to determine the prevalence of MetS and 10-year cardiovascular risk, and to analyse differences by sex and occupational function among police officers (POs) in Madeira. Methods: A cross-sectional study was conducted among 109 POs from the Autonomous Region of Madeira. MetS was defined according to the National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III) criteria, and 10-year cardiovascular risk was estimated using the Framingham Risk Score. Health-related quality of life (HRQoL) was evaluated using the SF-36 questionnaire (SF-36v2). Comparisons were performed by sex and professional role (indoor versus outdoor). Results: (i) The prevalence of MetS was 28.4%; (ii) Male POs had significantly higher Framingham Risk Scores than female POs, although no sex differences in MetS prevalence were observed; (iii) Approximately 20% of POs were classified as high cardiovascular risk; and (iv) Among male POs, those performing indoor duties showed higher cardiovascular risk scores. Conclusions: POs in Madeira present a considerable burden of cardiometabolic risk factors. These findings highlight the need for targeted occupational health strategies and regular cardiovascular screening within police organisations.

[Lien vers l'article](#)

Cancers

Aucun article dans ce bulletin.

Risque routier, accidentologie

Working Hour Characteristics and Risk of Occupational Accidents - A Case-crossover Study of the Retail Sector.

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BACKGROUND: The purpose was to investigate the association between the working hour characteristics of irregular working hours and the first incident occupational accident in the retail sector. METHODS: Employer-owned register data of daily working hours and the first incident occupational accidents in 2021-2023 were used. The final sample of 470 employees was analyzed using

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[Lien vers l'article](#)

Analysis of risk factors in occupational injuries among hotel catering workers.

Rey-Merchán MDC, López-Arquillos A. *Work*. 2026 Mar 11:10519815261428097.

BackgroundHotel catering workers are exposed to an exceptionally elevated risk of occupational injuries and illnesses, and are particularly vulnerable due to the physically demanding nature of their routine tasks, as well as both personal and organizational conditions.**Objective**The aim of the current research is to examine the potential impact of influencing factors (e.g., sex, nationality, age, workplace, contract, length of service, night work) associated with different types of injuries sustained by hotel catering workers.**Methods**A total sample of 58,855 accidents among hotel catering workers were analyzed in a cross-sectional study, with a logistic regression model being employed to estimate the odds ratio (OR) values. It should be noted that bias due to underreporting of accidents may have some impact on the data used in the study.**Results**The results indicate that high-risk and high-protective factors were especially significant in neck injuries. Female and native workers, those below the age of 45, and night workers presented a higher risk of neck injuries. In contrast, foreign male workers, those older than 45, and those working in their habitual workplace presented a lower risk of suffering a neck injury.**Conclusions**It is notable that no universal protective variable was found for all of the types of injury studied. Risk profiles are specific to particular injury types, thereby limiting the effectiveness of uniform or generalized safety interventions. Hotel safety managers should pay particular attention to those workers presenting the highest risk according to their risk profiles.

[Lien vers l'article](#)

RPS et QVT

A cross-sectional analysis of AI readiness and attitudes among nurses in resource-limited Chinese county hospitals.

Yu M, Yu R, Zhou M, Fan X, Geng R, Ji J, et al. *Front Digit Health*. 2026;8:1778627.

AIM: To investigate the current situation of clinical nurses' attitudes towards artificial intelligence in county hospitals and analyze its influencing factors, so as to provide a reference for promoting the application of artificial intelligence technology in the field of primary medical care. **DESIGN:** A descriptive, cross-sectional study. **METHODS:** A total of 449 clinical nurses from a Chinese county-level B-level hospital in Nantong City were selected from August to September 2025 by convenience sampling, and the general information questionnaire, the Attitude Scale for the Application of Artificial

Intelligence Technology in Nursing, the Artificial Intelligence Literacy Scale and the Change Fatigue Scale were used to investigate the influencing factors. RESULTS: The total score of clinical nurses' attitudes toward AI was 45.17 ± 2.38 , indicating a moderate level. Multiple linear regression analysis identified age, participation in AI-related training, education level, number of monthly night shifts, change fatigue, and total AI literacy score as significant determinants of AI attitudes (all $P < 0.05$). Collectively, these factors accounted for 60.6% of the total variance in AI attitude scores. CONCLUSION: The attitude of Chinese county-level clinical nurses towards AI is at a moderate level and is influenced by multiple modifiable factors. To enhance AI acceptance and facilitate its integration into primary care, we recommend implementing targeted AI training programs, improving AI literacy, optimizing scheduling to reduce night shift burdens, and proactively managing change fatigue.

[Lien vers l'article](#)

Attention performance in emergency physicians: the effect of shift duration and cardiac arrest cases.

Yasak İ H, Demir HA, Şeyhanlı ES, Giden R, Barut E. *BMC Emerg Med.* 2026 Mar 5;26(1).

OBJECTIVE: Emergency departments (EDs) are high-acuity clinical environments characterized by a high demand for sustained attention and significant cognitive load. This study aimed to evaluate the impact of shift timing and high-stress clinical events, such as cardiac arrest, on the attentional performance of emergency medicine specialists. METHODS: This prospective observational study was conducted in the emergency department of a tertiary care hospital, enrolling 23 emergency medicine specialists. Participants' attentional performance was measured using the mobile Stroop Color-Word Test. Assessments were performed at two-hour intervals during 8-hour shifts and also pre- and post-cardiac arrest events. The collected data were analyzed in relation to variables including shift type, number of cardiac arrests, and resuscitation success. RESULTS: Stroop scores differed significantly by shift type ($p = 0.021$, $\eta^2 \approx 0.07$), with the highest attentional performance observed during the evening shift and the lowest during the night shift. A significant decline in attentional performance was noted following cardiac arrest events (median difference: -3 points, $p < 0.001$; $r = 0.59$), a pattern that was consistent across all shift types. Furthermore, post-resuscitation attentional levels were significantly higher after successful outcomes (Return of Spontaneous Circulation, ROSC) compared to unsuccessful ones ($p = 0.017$; $r \approx 0.30$). Mixed-effects multivariate analysis revealed that working the night shift ($\beta = -3.1$), an increased number of cardiac arrests ($\beta = -0.8$ per event), and an unsuccessful ROSC outcome ($\beta = -2.4$) were all independently associated with lower attentional performance. CONCLUSION: This study demonstrates that night shifts, frequent exposure to cardiac arrests, and unsuccessful resuscitation outcomes adversely affect the attentional performance of emergency physicians. These findings suggest that physicians are more cognitively vulnerable in the ED, particularly during night hours and following high-stress clinical situations. These results underscore the need for a re-evaluation of shift scheduling and the development of structural interventions to support physicians after critical incidents, with the ultimate goal of enhancing clinical safety. SUPPLEMENTARY INFORMATION: The online version contains supplementary material available at 10.1186/s12873-026-01529-4.

[Lien vers l'article](#)

Analysis of the current status and associated factors of career calling among novice nurses: a latent profile analysis.

Xin D, Xin D, Wang Y, Zhu W, Li W, Heng Y. *Front Psychol.* 2026;17:1651190.

OBJECTIVES: This study aimed to investigate the current status of career calling among novice nurses, to identify potential subtypes and their population characteristics, and to further explore the factors associated with the different subtypes. METHODS: A cross-sectional descriptive study was used. From January to February 2024, 845 novice nurses from 11 hospitals in Shanxi Province were selected for an

online questionnaire survey using convenience sampling. The demographic questionnaire, transition shock of newly graduated nurses scale, medical staff resilience scale, and career calling scale were used as study instruments. Latent profile analysis (LPA) was used to explore the subtypes of novice nurses' career calling, and multifactorial logistic regression was used to analyze the related factors of novice nurses' career calling. RESULTS: Three subtypes of career calling of novice nurses in this study were identified, namely, lacking-calling group (10.3%), stable-calling group (50.0%), and sufficient-calling group (39.7%). Education, weekly working hours, weekly frequency of night shifts, reasons for choosing nursing, level of transition shock, and level of resilience were significantly associated with the three latent profiles of career calling of novice nurses in this study. CONCLUSION: Novice nurses' career calling presents 3 latent profiles and is heterogeneous in this study. Nursing administrators could pay attention to the differences in the level of career calling of novice nurses and adopt targeted management strategies based on the type of characteristics of the population in order to improve the level of career calling of novice nurses, help them develop their careers, and stabilize the nursing workforce.

[Lien vers l'article](#)

Factors Associated With Presenteeism Among Clinical Nurses: A Meta-Analysis.

Wang Y, Li M. *Int J Nurs Pract.* 2026 Apr;32(2):e70136.

BACKGROUND: Presenteeism appears to be particularly prevalent among nursing staff, with previous studies suggesting potential associations with heavy nursing workloads and strained nurse-patient relationships, which may adversely affect health-related productivity and increase the risk of nursing errors. OBJECTIVES: A systematic review and meta-analysis was performed to evaluate the factors influencing presenteeism among clinical nurses. METHODS: Systematic searches were undertaken in China Knowledge Resource Integrated Database, the China Biomedical Database, WanFang, Wipro, Web of Science, PubMed, EMBASE, The Cochrane Library, CINAHL and PsycINFO. The quality of the included studies was examined, and meta-analysis was performed in Stata 18 software. RESULTS: A total of 16 cross-sectional studies were included with a sample size of 10 067 clinical nurses. Meta-analysis showed that clinical nurses had a high presenteeism score of 15.94. Subgroup analyses indicated that age, professional title, marital status, childbearing status, mode of employment, night shifts per month, years of work, perceived work stress, self-assessed health status and experience of workplace violence were influential factors contributing to nurse presenteeism. CONCLUSIONS: With clinical nurses at high risk for presenteeism, managers should identify high-risk factors early and take appropriate measures to reduce the incidence of nurse presenteeism. REGISTRATION: PROSPERO number: CRD420251041341.

[Lien vers l'article](#)

Workplace harassment and violence in the public sector: an integrative literature review.

Vito LG, Coimbra MAR, Sanfelice RC. *Rev Bras Med Trab.* 2026 Jan-Dec;24:e20261537.

Workplace violence is associated with workers' mental health impairment. This study aimed to characterize the scientific production on workplace harassment and/or violence in the public sector and to synthesize the main available evidence. An integrative literature review was conducted, with a protocol registered on the Open Science Framework platform (<https://osf.io/phq4z/>). Searches were performed in the VHL, PubMed, and APA PsycInfo®. The search strategy included the descriptors "public sector," "harassment, non-sexual," and "workplace violence." Inclusion criteria were original articles published within the last 10 years, available in full text, written in Portuguese, English, or Spanish, whose study population included public sector workers and addressed workplace harassment and/or violence. After the selection process, 10 articles were included. Verbal violence showed a prevalence ranging from 19.4% to 63.5%, followed by physical violence, with rates between 9.8% and

16%, and sexual harassment, ranging from 9.1% to 12%. The public sector was approximately three times more affected compared with the private sector. Factors associated with increased susceptibility to workplace harassment and violence included being married, female sex, working as a physician or member of the nursing staff, night shift work, and professional practice in hospital emergency departments. Managerial support was identified as a protective factor. Repeated exposure to violent episodes was associated with an increased risk of suicide attempts and death by suicide. Public sector workers are significantly exposed to workplace harassment and violence. Greater attention from managers is recommended, along with strengthening public policies and educational programs aimed at implementing preventive measures and promoting healthier work environments.

[Lien vers l'article](#)

The impact of working time conditions on nurses' private life: a cross-sectional study on spillover effects and structural factors for recovery.

Brants P, Hanefeld S, Jacobs AS, Hüttl J, Hanika S, Lückner K, et al. *BMC Nurs.* 2026 Mar 5;25(1).

BACKGROUND: Working conditions in the nursing profession, characterized by shift work and staff shortages, severely impair nurses' capacity for recovery. This leads to a negative spillover effect, where work-related stress and exhaustion impact private life, threatening staff well-being and retention. While the consequences are known, the specific structural and organizational drivers of these recovery deficits are not fully understood. This study aims to identify key structural factors in working time arrangements that impact nurses' recovery. **METHODS:** A quantitative, cross-sectional online survey was conducted between August and October 2024. The sample included 544 nursing professionals from various stationary care sectors in Germany. A standardized questionnaire, developed from validated scales, assessed working time arrangements (overtime, breaks, rest periods), schedule predictability, and negative spillover effects from work to private life. Data were analyzed using descriptive statistics, Spearman's correlations, and a multiple linear regression model. **RESULTS:** The findings revealed a high prevalence of structural stressors, with a majority of nurses reporting regular overtime (61.5%), frequently missed breaks (61.2%), and non-adherence to statutory rest periods (55.9%). A multiple linear regression analysis, explaining 27.8% of the variance in negative spillover, showed that all five investigated structural factors were significant, independent predictors. The frequent omission of breaks emerged as the strongest unique predictor, followed by the frequency of schedule changes, schedule unpredictability (lead time), overtime, and insufficient rest periods. **CONCLUSION:** This study provides strong evidence that nurses' recovery is critically dependent on structural organizational frameworks. Factors such as overtime, insufficient recovery periods, and schedule instability are key, modifiable drivers of the negative spillover effect, which undermines nurses' work-life balance. Healthcare institutions and policymakers must shift from focusing on individual coping to implementing robust organizational policies. Key strategies include enforcing statutory rest periods, establishing predictable scheduling, and investing in staffing models that prevent systematic overtime. These structural interventions are essential to improve nurse retention and ensure the long-term sustainability of the nursing workforce. **TRIAL REGISTRATION:** Clinical trial number: not applicable.

[Lien vers l'article](#)

Determination of Nurses' Attitudes Towards Evidence-Based Practice and Affecting Factors.

Boduç N, Karadede Ö, Budak B. *Florence Nightingale J Nurs.* 2026 Feb 26;34:1-10.

AIM: The research was conducted to determine nurses' attitudes toward evidence-based practices and the affecting factors. **METHODS:** This research was planned as descriptive and cross-sectional. The sample of the research consisted of 275 nurses actively working in a university hospital. A "Personal Information Form" and "Attitude Toward Evidence-Based Nursing Questionnaire" were used to collect

the data. Frequency, percentage, kurtosis, skewness, t-test, ANOVA, Tukey, LSD tests, (The Least Significant Difference) and multiple regression analysis were used to evaluate the data. RESULTS: It was found that mean scores of the nurses were 67.856 Å} 7.754 for "total attitude toward evidence-based nursing," 32.530 Å} 3.617 for "beliefs and expectations toward evidence-based nursing," 17.383 Å} 2.711 for "evidence-based practice intention," and 17.944 Å} 3.039 for "feelings about evidencebased nursing." The total score of those who worked on shifts was 66.159 Å} 8.003. The total score of those who followed professional publications on the attitude toward evidence-based nursing questionnaire was 69.141 Å} 7.489. CONCLUSION: It was determined that nurses' attitudes toward evidence-based practices were positive, shift work reduced the attitude level, and following professional publications increased the attitude level. Cite this article as: Bodu., N., Karadede, .., & Budak, B. (2026). Determination of nurses' attitudes towards evidence-based practice and affecting factors. *Florence Nightingale Journal of Nursing*. 34, 0250, doi:10.5152/FNJN.2026.24250.

[Lien vers l'article](#)

Alarm fatigue among critical care unit and emergency room nurses: a multicentre cross-sectional study in Iran.

Abbaszadeh SM, Poursaadat N, Sadeghian A, Karimi N, Zarei R, Dehghan Nayeri N. *BMJ Open*. 2026 Apr 3;16(4):e112066.

OBJECTIVES: To assess the level of alarm fatigue among intensive care unit (ICU), cardiac care unit (CCU) and emergency room (ER) nurses, identify associated demographic and occupational factors, determine the most frequent sources of alarms and evaluate nurses' psychological reactions to alarms. DESIGN: A cross-sectional, descriptive-analytical study. SETTING: ICUs, CCUs and ERs of six public teaching hospitals affiliated with Tehran and Kashan Universities of Medical Sciences in Iran. PARTICIPANTS: Using a multistage stratified random sampling method, 285 nurses were approached, of whom 260 completed and returned the questionnaires (response rate: 91%). Participants were registered nurses with at least a bachelor's degree or higher and 3 months of experience in ICUs, CCUs or ERs. PRIMARY AND SECONDARY OUTCOME MEASURES: The primary outcome was the level of alarm fatigue measured using the validated Nurses' Alarm Fatigue Questionnaire. Secondary outcomes included factors associated with alarm fatigue and nurses' reported psychological responses to frequent alarms. RESULTS: The mean score of alarm fatigue was 26.4±7.9, indicating a moderate level. After adjusting for confounders and hospital-level clustering using multivariable mixed-effects regression, higher monthly income was significantly associated with lower alarm fatigue ($\beta=-0.15$, $p=0.03$), and nurses working rotational shifts reported significantly higher fatigue compared with those with fixed shifts ($\beta=0.18$, $p=0.02$). Other demographic and occupational factors were not significant. Reported psychological reactions to alarms included indifference (14%), irritability (18%) and anxiety/stress (15%). CONCLUSIONS: ICU, CCU and ER nurses experience a moderate level of alarm fatigue, with income and shift type as independent associated factors. The association between income and alarm fatigue may reflect the role of financial stress as an additional job demand that compounds the burden of frequent alarms, particularly in contexts where low base salaries lead nurses to rely on overtime and multiple shifts. These findings underscore the need for targeted managerial and educational interventions, including shift schedule optimisation and attention to workload-related stressors, alongside alarm prioritisation strategies. Due to the cross-sectional design, causal inferences cannot be drawn.

[Lien vers l'article](#)

Santé psychique

Burnout levels and associated factors among physicians and dentists in Türkiye.

Yildiz M, Aydin MR, Aydin A. *Medicine (Baltimore)*. 2026 Mar 20;105(12):e48108.

This study aimed to determine the burnout levels and identify associated demographic, occupational, and organizational factors among physicians and dentists in Türkiye. Burnout, characterized by emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA), is an increasingly critical issue affecting both healthcare providers' well-being and the quality of healthcare services. A nationwide, cross-sectional, online self-reported survey was conducted between February and August 2024 among 1312 physicians and dentists working in public and private sectors across Türkiye. Data were collected using a structured questionnaire including sociodemographic and professional characteristics, and the Turkish-adapted Maslach Burnout Inventory. Maslach Burnout Inventory subscales scores for EE, DP, and PA were analyzed. Associations between burnout levels and independent variables were evaluated using nonparametric tests, and Bonferroni-adjusted post hoc comparisons. Additionally, hierarchical multivariable linear regression analyses were performed to identify independent predictors of EE, DP, and PA and to adjust for potential confounding factors. Overall, 46.3% of participants had high EE, 16.2% had high DP, and 8.7% had low PA. Higher EE and DP were significantly associated with younger age, fewer years in practice, being unmarried, childless, working in the public sector, lacking administrative experience, exposure to violence or mobbing, involvement in lawsuits, high patient volume, and night shifts. Poor physical work environment, insufficient nonphysician support, and low perceived income were significantly correlated with all 3 subscales, indicating greater burnout risk. Physicians and dentists reporting the intention to leave the profession or to work abroad also exhibited higher burnout scores. In multivariable hierarchical linear regression analyses, intention to leave the profession, exposure to workplace violence, and career-related intentions remained among the strongest independent predictors of EE and DP, while PA showed comparatively weaker associations with sociodemographic and occupational factors. Burnout is highly prevalent among physicians and dentists in Türkiye and is influenced by multiple personal, occupational, and systemic factors. Addressing modifiable contributors (such as workload, workplace safety, staffing adequacy, and income satisfaction) should be prioritized to protect the well-being of healthcare professionals and ensure sustainable, high-quality healthcare delivery.

[Lien vers l'article](#)

Prevalence and Associated Factors of Depression Among Emergency Physicians in South Korea: Findings from the 2025 Korean Emergency Physician Survey.

Kim MJ, Yeo IH, Lee MJ, Kim JH, Lee HM, Cho KH, et al. *Medicina (Kaunas)*. 2026 Mar 9;62(3).

Background and Objectives: Emergency physicians practice in high-pressure environments and face occupational stressors that may affect their mental health. This study was designed to evaluate the prevalence of depression among emergency physicians in South Korea and examined environmental, sociolegal, and individual factors associated with depressive symptoms in the post-pandemic period. **Materials and Methods:** This nationwide cross-sectional study analyzed data from the 2025 Korean Emergency Physician Survey. Screening positive for depressive symptoms was defined as a Patient Health Questionnaire-9 (PHQ-9) score ≥ 10 , indicating moderate-to-severe depressive symptom severity. Measures included the PHQ-9, the Korean Epworth Sleepiness Scale (KESS), and the Adult APGAR, a brief self-administered instrument assessing overall wellness. Multivariable logistic regression was performed to identify factors associated with depression after adjusting for demographic, clinical, and work-related variables. **Results:** Of the 1050 physicians who responded (response rate: 37.5%), 743 emergency physicians completed the PHQ-9 section (completion rate: 70.8%; mean age, 43.2 ± 7.78 years; 86.5% male), and 111 (14.9%) screened positive for depressive symptoms. Objective workload indicators, including total work hours and number of night shifts, did

not differ between physicians with and without depression. However, emergency physicians screening positive for depression reported higher perceived burdens related to staffing shortages and patient-related stressors. Protective factors included being married (adjusted odds ratio [AOR], 0.22; 95% confidence interval [CI], 0.08-0.58), longer sleep duration (AOR, 0.65; 95% CI, 0.50-0.86), better sleep quality (AOR, 0.45; 95% CI, 0.27-0.74), fixed mealtimes (AOR, 0.60; 95% CI, 0.39-0.93), and higher Adult APGAR scores (AOR, 0.72; 95% CI, 0.60-0.86). Factors associated with increased odds of depression included a history of cancer (AOR, 14.63, 95% CI, 2.53-84.61), current alcohol consumption (AOR, 2.54, 95% CI, 1.14-5.68), daytime sleepiness (AOR, 1.17; 95% CI, 1.04-1.31), and more frequent verbal abuse during the previous 12 months (AOR, 1.25; 95% CI, 1.08-1.44). Conclusions: Depression was prevalent and was associated with perceived work burden, sleep health, lifestyle regularity, and psychosocial factors. Interventions should address sleep quality, workplace safety, and social support.

[Lien vers l'article](#)

Burnout Across Healthcare, Educational, and Professional Populations: A Comprehensive Scoping Review.

Chalghaf N, Chokri I, Dhahbi W, Ceylan H, Bragazzi NL, Muntean RI, et al. *J Multidiscip Healthc.* 2026;19:564113.

BACKGROUND: Burnout, defined by emotional exhaustion, depersonalization, and reduced personal accomplishment, is increasingly recognized as a significant threat to staff wellbeing, organizational performance, and patient safety in healthcare and related sectors. Although research on burnout has grown rapidly, the evidence base remains fragmented, limiting understanding of cross-population patterns, measurement approaches, and the effectiveness of interventions. **OBJECTIVE:** This scoping review systematically maps and synthesizes the existing literature on burnout among healthcare workers, students, teachers, night shift workers, and other professional populations, with particular emphasis on its implications for staff well-being and quality of care. **METHODS:** Following Arksey and O'Malley's framework and PRISMA-ScR guidelines, systematic searches were conducted in MEDLINE, Embase, PsycINFO, CINAHL, Scopus, Web of Science, and Cochrane from inception to December 2024. Eligible studies used validated instruments to assess burnout. Data synthesis employed narrative thematic analysis and systematic literature mapping. **RESULTS:** Sixty-five studies were included (healthcare workers n=29; students n=18; teachers n=9; night shift workers n=6; other populations n=3). Six key themes emerged: prevalence variations (25-72%), with healthcare workers demonstrating the highest rates (35-68%) and strongest associations with compromised patient safety; diversity of measurement tools; intervention effectiveness patterns, wherein combined individual-organizational approaches demonstrated superiority over single-component strategies (effect size d=0.67, 95% CI: 0.42-0.91 at 12-month follow-up); organizational versus individual risk factors; temporal trends including COVID-19 impacts; and implementation challenges. Methodological heterogeneity limited cross-population comparability and the standardization of interventions. **CONCLUSION:** Burnout represents a critical occupational health and patient safety concern. This scoping review highlights significant gaps in cross-population research, the need for standardized measurement approaches, and the importance of multilevel, evidence-based interventions. The findings provide essential insights for researchers, healthcare administrators, and policymakers aiming to design sustainable strategies to protect staff wellbeing and ensure safe, high-quality care.

[Lien vers l'article](#)

Troubles cognitifs et de la vigilance**Supporting paramedic sleep and fatigue: a qualitative exploration of education considerations from the early-career paramedic perspective.**

Wanstall SE, Naweed A, Brown BWJ, Crowther ME, Adams RJ, Reynolds AC. *BMC Health Serv Res.* 2026 Mar 5;26(1).

BACKGROUND: Poor sleep and fatigue are common among paramedics, with negative implications for the safety and well-being of paramedics and the community. Targeted education can support sleep and fatigue outcomes, however knowledge relating to the optimal content, delivery methods, and timing of education delivery, is limited. This study explores the experiences of sleep, fatigue, and shift work among early-career paramedics to inform sleep and fatigue education specifically for the paramedic workforce, with considerations for implementation across the paramedic career span. **METHODS:** We used a qualitative approach underpinned by a critical realist paradigm. Semi-structured interviews with early-career paramedics ($n = 30$) were conducted, and data analysed inductively using conventional content analysis. **RESULTS:** Three categories were constructed: (1) Learning to sleep well as a paramedic, (2) Sleep knowledge and experiences of paramedics, and (3) Sleep and fatigue education preferences for paramedics. As shift workers, paramedics learned to sleep well experientially and through informal knowledge sharing, rather than meaningful education or preparation. Feeling unprepared for shift work was common, as was a desire for evidence-based education and systematic support throughout the career. Co-designed, contextually relevant, adaptive and embedded educational approaches were preferred. Results also reflected a critical gap in knowledge and awareness surrounding sleep disorders, suggesting a need for meaningful education and support pathways. **CONCLUSIONS:** Findings underscored a need for evidence-based education about sleep, fatigue, and sleep disorders within paramedic tertiary education and organisational systems. Co-designed approaches combining expert knowledge and lived experience with clearer help-seeking pathways are essential for improving paramedic and community well-being, safety, and workforce sustainability. **SUPPLEMENTARY INFORMATION:** The online version contains supplementary material available at 10.1186/s12913-026-14278-8.

[Lien vers l'article](#)

Sleep hygiene practices and excessive fatigue among nurses working at comprehensive specialized hospitals in Northwest, Ethiopia.

Segon T, Kibralew G, Aderaw M, Nakie G, Yenealem B, Seid E, et al. *Sleep Med X.* 2026 Dec;11:100182.

BACKGROUND: Sleep problems pose global public health concerns, particularly among nurses, with approximately two-thirds experiencing sleep disturbances and fatigue. Although poor sleep hygiene and fatigue can impair nurses' performance and alertness, increasing work-related accidents, chronic diseases, absenteeism, burnout, and medical errors, ultimately threatening both nurses' well-being and patient safety, no studies have been conducted in Ethiopia. This study assesses sleep hygiene practices and perceived fatigue, examines their associations and associated factors among nurses. **METHODS:** A cross-sectional study was conducted among 424 nurses via simple random sampling. Data collected using self-administered Sleep Hygiene Index, Chalder Fatigue Scale, and Pittsburgh Sleep Quality Index questionnaires analyzed with SPSS Version 26.0. Bivariate, multivariate, and Pearson correlation analyses were done. **RESULTS:** The study revealed that 52.3% and 89.3% of nurses had poor sleep hygiene practices, and perceived fatigue respectively. A significant positive correlation was found between poor sleep hygiene and fatigue ($r = 0.67$, $P < 0.001$). Burnout syndrome (AOR = 4.51, 95% CI: 2.60, 8.05), depression (AOR = 2.52, 95% CI: 1.53, 4.09), current alcohol drinkers (AOR = 1.95, 95% CI: 1.25, 3.08), shift work sleep disorders (AOR = 2.03, 95% CI: 1.17, 3.82), poor sleep quality (AOR = 5.04, 95% CI: 2.33, 9.52), and job-related stress (AOR = 3.54, 95% CI: 1.76-6.98) were associated factors. **CONCLUSIONS:** Over half of nurses had poor sleep hygiene, and highly experienced perceived

fatigue. A significant positive correlation was found between poor sleep hygiene practices and fatigue. Thus, promoting good sleep habits to manage and prevent fatigue among nurses are crucial.

[Lien vers l'article](#)

Health Related Quality of Life and Sleep Regularity Among Middle-Aged to Older Adults From the Community.

Sansom K, Mittinty MMN, Scott H, Lechat B, Windred D, Phillips AJK, et al. *J Sleep Res.* 2026 Apr;35(2):e70194.

Irregular sleep is increasingly related to poorer health, with stronger links to cardiovascular disease and mortality than sleep duration. Its impact on health-related quality of life, however, remains unclear, particularly in community-based populations. This study examined whether objectively measured sleep regularity is associated with physical and mental health-related quality of life. Sleep regularity was calculated using the Sleep Regularity Index from actigraphy data in 768 middle-aged to older adults from the Raine Study (median age [range] = 57 [53-61]; 58% female). Physical and mental health-related quality of life were assessed using the 12-item Short Form Health Survey. Quantile regression was used to examine associations at the 25th, 50th, and 75th percentiles, adjusting for age, sex, comorbidity count, sleep duration, and shift work. Median sleep regularity scores declined with self-rated health, from 77.17 (excellent) to 61.49 (poor). A 10-unit increase in sleep regularity was associated with higher mental health scores at the 25th (1.80; 95% CI: 0.90-2.60), 50th (1.20; 95% CI: 0.50-1.90), and 75th (0.50; 95% CI: 0.20-0.90) percentiles. For physical health, a 10-unit increase in sleep regularity was associated with a 1.20 (95% CI: 0.30-2.20) higher score at the 25th percentile, with no evidence of association at higher percentiles. These findings suggest that poorer sleep regularity is related to lower physical and mental health-related quality of life. Future research should explore whether improving sleep regularity can enhance quality of life in middle-aged to older adults.

[Lien vers l'article](#)

Sleep Quality, Insomnia, Daytime Sleepiness, and OSA Risk Across Occupational Groups: A Comparative Analysis of Professional Drivers and IT Workers.

Neacșu GRL, Rașcu A, Nedelcu AB. *J Clin Med.* 2026 Feb 28;15(5).

Background: Sleep disturbances are common in occupational settings and may impair health, safety, and work performance. Professional drivers represent a safety-critical occupational group, whereas information technology (IT) workers are frequently exposed to prolonged screen use and high cognitive workload. Methods: A cross-sectional study was conducted during 2023-2025 among 488 workers, including professional drivers and IT workers. Participants completed the Pittsburgh Sleep Quality Index, STOP-Bang questionnaire, Epworth Sleepiness Scale, and Athens Insomnia Scale. Age, sex, body mass index, and total work experience were recorded. Group comparisons and multivariable logistic regression analyses adjusted for demographic and occupational factors were performed. A predefined subgroup analysis was conducted among night-shift workers (n = 113). Results: IT workers were younger and reported poorer subjective sleep quality and more frequent insomnia symptoms compared with professional drivers. In contrast, moderate-to-high OSA risk was more prevalent among drivers. Excessive daytime sleepiness did not differ significantly between groups. In multivariable models, occupational group independently predicted poor sleep quality and insomnia, whereas age and body mass index were the strongest predictors of OSA risk. Conclusions: Sleep-related outcomes differ across occupational groups. Professional drivers appear more vulnerable to OSA-related risk, while IT workers experience a higher burden of insomnia and poor subjective sleep quality. Occupational context should be considered when designing sleep screening and prevention strategies.

[Lien vers l'article](#)

The relationship between sleep quality and occupational identity among psychiatric night shift nurses.

Qin Q, Zhu H, Yu M, Bao J, Ma Z, Zhu X, et al. *Front Psychiatry*. 2026;17:1711613.

PURPOSE: This study aimed to investigate the relationship between sleep quality and occupational identity among psychiatric night shift nurses. **METHODS:** This cross-sectional survey was conducted from August to December 2024 among psychiatric night shift nurses at Nantong Fourth People's Hospital. Data were collected using a self-administered questionnaire covering three domains: (1) sociodemographics and work characteristics, (2) lifestyle factors (physical exercise and dietary regularity), and (3) night shift related sleep patterns. The survey used the Pittsburgh Sleep Quality Index and the Occupational Identity Scale. Analysis of variance and logistic regression were used to identify factors influencing sleep quality. Pearson's correlation analysis was used to examine the relationship between sleep quality and occupational identity. **RESULTS:** Logistic regression analysis indicated that the following factors were significantly associated with sleep quality: night shift frequency, sleep quality before and after shifts, daily diet, daily exercise, and the total score of occupational identity. Subjective sleep quality, sleep latency, sleep duration, sleep disturbance, and daytime dysfunction scores were significantly negatively correlated with total occupational identity score and scores of its dimensions. **CONCLUSION:** Psychiatric night-shift nurses generally exhibited poor sleep quality, and the total PSQI score showed a significant negative correlation with the total OIS score. Key factors influencing sleep quality include night shift frequency, sleep quality before and after shifts, as well as lifestyle factors such as daily diet and regular exercise, and occupational identity. Therefore, nursing managers should prioritize sleep health management by optimizing schedules, promoting healthy lifestyle habits, and enhancing occupational identity to improve job stability.

[Lien vers l'article](#)

The Role of Sleep Banking in Reducing Cognitive and Motor Impairments from Subsequent Sleep Restriction: A Narrative Review.

Juginović A, Rodman L. *Clocks Sleep*. 2026 Feb 23;8(1).

Sleep banking, i.e., preemptively obtaining extra sleep prior to anticipated sleep loss, has been proposed as a strategy to reduce the cognitive and physiological consequences of sleep deprivation. However, our understanding remains incomplete regarding the effectiveness of preemptive sleep extension in enhancing resilience to sleep loss. A comprehensive literature search was conducted using PubMed, MEDLINE, and Embase for studies published between 2004 and 2025. Following a comprehensive literature search, we identified 12 studies meeting the inclusion criteria-seven primary experimental trials comprising approximately 140 participants, predominantly healthy young adults aged 18-39 years. We evaluated the effects of sleep banking on cognitive performance, mood, physiological parameters, and real-world outcomes. Included studies encompassed experimental laboratory trials, observational research, and field studies in occupational and athletic settings. Although the number of studies on sleep banking remains limited, experimental evidence demonstrates that preemptive sleep extension improves objective alertness and vigilance during subsequent sleep restriction or total sleep deprivation. Individuals who obtained additional sleep exhibited fewer attentional lapses, faster reaction times, and improved mood, although subjective sleepiness often remained high. Preliminary field evidence suggests that preemptive sleep extension enhances workplace safety, reduces errors, and improves sustained attention in shift workers. In athletic contexts, sleep banking has been associated with improved physical endurance and reaction speed. Importantly, this review primarily addresses the homeostatic dimension of sleep regulation (Process S); circadian factors (Process C), including chronotype, social jetlag, and circadian timing of sleep extension and testing, were not systematically addressed in the included studies and represent important limitations of the current evidence base. Overall, sleep banking appears to be a viable

strategy for enhancing resilience to acute sleep loss. It confers measurable benefits in performance, cognitive function, and physiological markers, supporting its application in high-demand occupations and competitive environments. Although it does not fully eliminate subjective fatigue, sleep banking may serve as a valuable complement to other fatigue mitigation strategies for anticipated short-term sleep loss.

[Lien vers l'article](#)

Association of work-time control with sleep quality and sleep duration in South Korea.

Lee HE, Min J, Kang MY, Cho SS. *J Occup Health*. 2026 Jan 6;68(1).

OBJECTIVES: Work-time control (WTC) may influence sleep health by allowing workers to align schedules with their personal needs, but findings have been inconsistent. In South Korea, where long working hours and low autonomy are prevalent, further investigation is required. This study aimed to examine the association between WTC, sleep quality, and sleep duration in South Korean workers. **METHODS:** Cross-sectional data from the fifth wave of the Korean Work, Sleep, and Health Study, a nationwide panel survey of South Korean workers aged 19-70, were used. The analytical sample included 5183 paid employees. WTC was categorized as low or high, and sleep quality was measured by the Pittsburgh Sleep Quality Index, with poor sleep quality defined as a score ≥ 11 . Short sleep duration was defined as < 7 hours per night. Poisson regression was used to estimate the prevalence ratios (PRs) after adjusting for age, sex, education, income, occupation, working hours, and shift work. **RESULTS:** Low WTC was associated with a higher prevalence of poor sleep quality (PR: 1.39; 95% CI: 1.09-1.77), adjusting for age, sex, education, income, occupation, working hours, and shift work. No significant association was found between WTC and short sleep duration. In the stratified analysis of weekly working hours among employees working 40-52 hours per week, there was a significant association between low WTC and poor sleep quality. **CONCLUSIONS:** Lower WTC was associated with poorer sleep quality. Improving work-time autonomy may enhance sleep, particularly among workers with moderate weekly working hours (40-52 hours).

[Lien vers l'article](#)

Chronobiologie

Animal

Ovarian Rev-erb α : a central regulator of fertility following chronodisruption.

Gupta S, Kumawat S, Kaushal V, Arora R, Kumar S, Sharma R, et al. *Front Endocrinol (Lausanne)*. 2026;17:1742988.

INTRODUCTION: Circadian rhythm disruption caused by shift work, nutritional imbalance, and the stresses of modern life can alter hormone secretion, lead to menstrual irregularities, impair follicle development, and contribute to ovarian hypoplasia. The mechanistic role of circadian rhythm disruption in reproductive disorders has been thoroughly investigated. Nuclear receptors are known to play an important role in female reproduction and in maintaining pregnancy. Rev-erb α , a circadian nuclear receptor, is a key component of the circadian clock and helps sustain circadian rhythm. **MATERIALS AND METHODS:** We evaluated the potential prophylactic and therapeutic functions of Rev-erb α in supporting female fertility by orchestrating a series of events that culminate in successful pregnancy. We generated a circadian rhythm-disrupted female mouse model to study fertility. **RESULTS:** The Rev-erb α ligand SR9011 improved the fertility index in these circadian rhythm-disrupted female mice. Moreover, SR9011 treatment restored impaired ovarian follicular cell proliferation and division, regulated steroidogenesis and steroid hormone production, enhanced progesterone and melatonin secretion, and mitigated the adverse effects of circadian disruption on folliculogenesis. SR9011 also reduced follicular atresia and promoted follicle development in CR-disrupted mice. Rev-erb α is a key regulator influencing oocyte retrieval, as demonstrated in mice treated with the Rev-erb α antagonist SR8278. **DISCUSSION/CONCLUSION:** These findings suggest that targeting Rev-erb α signaling and elucidating its mechanistic role in female reproduction could inform the development of more effective strategies for treating female infertility. As a sought-after druggable target, Rev-erb α has a broad range of potential therapeutic applications and has recently attracted considerable attention in the context of female infertility treatment.

[Lien vers l'article](#)

Chronic Night Shift Is More Detrimental Than Chronic Light at Night on Circadian Rhythmicity and Metabolic Health in a Female Diurnal Rodent.

Grosjean E, Dumont-Kientzy S, Bouleté IM, Ciocca D, Jaramillo-Ortiz S, Bertile F, et al. *Faseb j*. 2026 Mar 31;40(6):e71633.

Humans are increasingly affected by circadian disruption due to light pollution, which likely increases the risk of metabolic disorders. It is still difficult, however, to dissociate the effects induced by indoor light at night (LAN) from those induced by circadian desynchronization, especially in women who are underrepresented in studies. For that purpose, we compared metabolic and circadian consequences of a 10-week exposure to either chronic LAN (light at night 4 days/week, mimicking nightwork) or chronic night shift (CNS, weekly 10-h shift of the light-dark cycle mimicking shiftwork) to the regular light-dark cycle (control group) in a female diurnal rodent, *Arvicanthis ansorgei*, an animal model for human pathophysiology. Both CNS- and LAN-exposed *Arvicanthis* gained more body mass than controls and lost daily rhythmicity of various forms of albumin and metabolic gene expression in the liver. Plasma levels of glycated albumin, a glycemic control marker, were specifically increased in the LAN-exposed group. However, only individuals exposed to CNS displayed increased fasting glucose, impaired glucose tolerance, increased plasma LDL-cholesterol, and marked alterations in daily rhythms of rest-activity and feeding. Clock gene expression in the suprachiasmatic nuclei of the hypothalamus and liver was more markedly altered after CNS than LAN. Overall, these data indicate that exposure to CNS is more harmful than chronic LAN on various circadian and metabolic parameters in a female diurnal rodent, CNS triggering risk factors for atherosclerosis and diabetes. Further studies are needed

to find chronotherapeutic countermeasures to prevent impaired liver metabolic rhythms after both LAN and CNS and CNS-induced circadian misalignment.

[Lien vers l'article](#)

Homme

Association of circadian rhythms, MTNR1B, BMAL1, BMAL2, and CRY2 gene polymorphisms and their interactions with type 2 diabetes in coal miners.

Li Q, Cao H, Zhang X, Yuan J, Zhang C. *Front Endocrinol (Lausanne)*. 2026;17:1567465.

OBJECTIVE: To investigate the interaction between circadian rhythm disorders and related gene polymorphisms (SNPs) in the risk of developing type 2 diabetes (T2DM). **METHODS:** Cross-sectional study included 4,070 coal miners who underwent occupational health examinations between 2017 and 2018. We constructed comprehensive indicators of circadian rhythm disorder (CICRD) using factor analysis. In case-control analysis, 424 cases and 464 controls were randomly selected from 3,878 male coal miners. Logistic regression models were used to examine the relationship between CICRD, selected SNPs, and T2DM. Gene-gene and gene-environment interactions were evaluated using log-linear models and the generalized multifactor dimensionality reduction (GMDR) method. **RESULTS:** The CICRD captures 79.771% of seven circadian rhythm disorder assessment indicators. Higher CICRD and variants at rs10830963 (MTNR1B), rs7958822 (BMAL2), and rs11605924 (CRY2) were associated with an increased risk of T2DM ($P < 0.05$). A CICRD score ≥ 0.2782 with each high-risk SNP (rs10830963, rs1387153, rs7958822, rs11605924) significantly increased T2DM risk ($P < 0.05$). The five-factor interaction model (rs10830963-rs7950226-rs7958822-rs11605924-CICRD) based on the GMDR method significantly increased T2DM risk in the full dataset ($P < 0.05$). **CONCLUSION:** The interaction between circadian rhythm disruption and high-risk SNP genotypes further amplifies the risk of T2DM among coal miners. Notably, the five-factor interaction model (rs10830963-rs7950226-rs7958822-rs11605924-CICRD) provides a standardized basis for assessing circadian rhythm disruption, screening high-risk populations, and identifying that high-risk genetic combinations are unsuitable for shift work, offering scientific evidence for the precision prevention of T2DM in coal miners.

[Lien vers l'article](#)

Association Between Shift Work and Metabolic Alterations: Possible Contributing Factors.

Leso V, Dolce P, Greco M, Durante A, Di Lauro L, Pedata P, et al. *Saf Health Work*. 2026 Mar;17(1):134-41.

BACKGROUND: Shift work (SW) can contribute to metabolic disorders affecting biological rhythms, inducing sleep deprivation, decreasing the resting metabolic rate, and changing dietary habits and eating behaviors. This study aims to assess the relationship of SW on physical and metabolic parameters, including the metabolic syndrome (MetS), and the contributing role of sleep quality, chronotype, chrononutrition, and the Mediterranean diet. **METHODS:** Shift and nonshift workers underwent medical examinations and lab tests. MetS was diagnosed using the National Cholesterol Education Program's Adult Treatment Panel III criteria. The Pittsburgh Sleep Quality Index, Chrononutrition Profile, Morning-Eveningness, and Prevention through Mediterranean Diet questionnaires were used to explore factors potentially affecting the development of metabolic disorders. **RESULTS:** Shift ($n = 172$) and nonshift workers ($n = 177$), primarily employed in healthcare and social activities and in the education and administrative sectors, were enrolled. Mean systolic blood pressure levels were significantly higher in shift workers compared to the daytime counterpart (121.0 ± 12.9 vs. 117.5 ± 13.2 mmHg, $p = 0.013$). MetS was significantly more frequent in the former group (25.6% vs. 13.7%, $p = 0.006$). Higher percentages of shift workers compared to daytime workers,

had poor quality of sleep (37.8% vs. 27.1%, $p = 0.033$), an evening chronotype (14% vs. 6.8%, $p = 0.010$), and high adherence to the Mediterranean diet (65.7% vs. 43.5%, $p < 0.001$), while no differences emerged for the chrononutrition profile. SW represents a risk factor for MetS, although its development results from the interaction of personal lifestyle, dietary habits, chronotype, chrononutrition, sleep quality, and occupational factors. **CONCLUSION:** In the perspective of the Total Worker Health® approach to workplace safety, health, and well-being, such an interplay should be addressed.

[Lien vers l'article](#)

Circadian rhythms and microbiota: molecular crosstalk and its implications for health and disease.

Wu G, Zhang J, Yan S, Liu N, Chen W, Wu F, et al. *Biol Direct*. 2026 Mar 7;21(1).

Circadian rhythms, evolutionarily conserved 24-hour oscillations, exert precise regulatory control over microbial communities across host niches including the gastrointestinal tract, oral cavity, urinary bladder, and skin. This bidirectional interplay is critical to host physiology: host circadian clocks shape the composition and functional rhythms of resident microbiota, while microbiota-derived signals reciprocally modulate circadian entrainment and tissue-specific rhythmicity. Circadian disruption from shift work, irregular feeding, light pollution, or sleep deprivation trigger microbial dysbiosis and circadian misalignment, contributing to metabolic diseases, gastrointestinal disorders, neuropsychiatric conditions, cardiovascular diseases, and dermatological or reproductive disorders. Mechanistically, this crosstalk is mediated by rhythmic hormonal secretion, microbial metabolites, epigenetic regulation, and immune signaling. Therapeutic strategies such as time-restricted feeding, probiotics, melatonin, and polyphenol-rich diets show promise in restoring temporal homeostasis. This review synthesizes current evidence on circadian-microbiota interplay, elucidates its roles in physiology and disease, and highlights translational opportunities for chrono-microbiome-based interventions to optimize host health. **SUPPLEMENTARY INFORMATION:** The online version contains supplementary material available at 10.1186/s13062-026-00748-w.

[Lien vers l'article](#)

Cumulative trauma, neural circuits, and burnout: an integrative model of healthcare worker post-traumatic stress syndromes.

Taren AA, Paulus MP. *Eur J Psychotraumatol*. 2026 Dec;17(1):2636453.

Background: Frontline healthcare workers (HCWs) experience unique patterns of repeated, chronic, and unpredictable traumatic event exposure, coupled with physiologic stress in the setting of shift-work circadian rhythm disruption, contributing to high rates of post-traumatic stress syndromes (PTSS) and substantial workforce and economic burden. The neurobiology underlying HCW-specific risk remains incompletely understood. **Objective:** To synthesise epidemiological, neuroimaging, physiological, and interventional evidence into a mechanistic model of HCW PTSS and to identify priorities for biomarker-guided prevention and care. **Method:** Literature for this narrative review was identified through a comprehensive search of peer-reviewed articles in PubMed, PsycINFO, and Google Scholar up to May 2025. Studies were included if they addressed (1) the epidemiology of PTSD in healthcare settings, (2) risk and protective factors specific to occupational trauma exposure, (3) neural, physiological, or molecular mechanisms associated with stress-related disorders in trauma-exposed personnel, or (4) interventions targeting PTSD/PTSS in HCWs and first responder populations. **Results:** Across studies, PTSS prevalence among HCWs is variable ($\approx 15\text{--}74\%$). Repeated, chronic, and unpredictable occupational trauma, exacerbated by circadian disruption, appears to destabilise frontal-limbic circuits and systemic stress pathways, culminating in allostatic overload. Converging data suggest that multimodal biomarkers, including resting-state and task-evoked fMRI metrics, MR spectroscopy, heart rate variability, sleep architecture, cortisol and inflammatory indices can identify

prodromal dysregulation and define risk stratification. Conclusions: Longitudinal, multimodal cohort designs are critically needed to track trajectories and evaluate neuroscientifically-informed treatment modalities for PTSS in this population. Framing HCW PTSS as an occupational neurobiological injury highlights the need to identify and prevent functional decline. A biomarker-guided strategy that links brain-circuit measures with autonomic, sleep, and molecular indices may offer a path to earlier identification, precision interventions, and improved outcomes for a critically at-need population that is essential to our workforce.

[Lien vers l'article](#)

Low-Dose Melatonin, Climacteric Symptoms and Sleep in Female Shift Workers: A Randomized Controlled Trial.

Saraiva SP, D'Aurea CVR, Luz CSS, Amaral FG, Cipolla-Neto J, Marqueze EC, et al. *J Pineal Res.* 2026 Mar;78(2):e70140.

Sleep disturbances and mood changes are common during the climacteric, often linked to hormonal fluctuations caused by reduced ovarian function. Evidence suggests that long-term melatonin administration may improve the quality of life in climacteric women. This study aimed to evaluate the effects of exogenous melatonin on climacteric symptoms, sleep quality, and reproductive hormones in women working fixed shifts. A randomized clinical trial was conducted with 46 nurses working fixed shifts at a hospital in São Paulo: morning (7:00-13:00, n = 16; intervention = 7, placebo = 9), afternoon (13:00-19:00, n = 15; intervention = 8, placebo = 7), and night (19:00-7:00, n = 15; intervention = 7, placebo = 8). Participants were randomly assigned to receive either 0.3 mg of melatonin or placebo. For night shift workers, melatonin was administered only on nights off, when they were sleeping at home; the same procedure was applied to morning and afternoon workers. Data collection included sociodemographic information, self-reported sleep quality, and menopausal symptoms. Blood samples were collected at home to measure luteinizing hormone (LH), follicle-stimulating hormone (FSH), estradiol, and progesterone before and after the intervention. A significant main effect of melatonin was observed, with a 15.8% reduction in climacteric symptoms compared with placebo ($p = 0.01$), independent of age or sleep duration, while no significant interaction with work shift was detected. Sleep quality improved by 35.33% on days off in the intervention group ($p < 0.001$), with morning shift workers showing a 32.46% improvement ($p < 0.05$). No significant changes were observed in reproductive hormone levels or total sleep duration. Exogenous melatonin effectively alleviates climacteric symptoms and improves sleep quality on days off, particularly among day-shift workers, without affecting reproductive hormone concentrations or total sleep duration. Trial Registration: RBR-10whktxm (UTN: U1111-1305-6221). Registered on 13 August 2025, retrospectively registered.

[Lien vers l'article](#)

Initial Condition Decision to Ensure Reliable Circadian Phase Estimation With Shorter-Term Wearable Data.

Lim D, Kim J, Kim JH, Kim JK. *J Biol Rhythms.* 2026 Apr 2:7487304261430123.

Various studies in the medical field highlight the importance of circadian medicine, which optimizes treatment timing based on patients' circadian phases. While the circadian phase has been measured using dim light melatonin onset (DLMO), the gold standard marker, its high cost and time-intensive nature have led to the development of alternative estimation methods. Among these, the most promising method is using ordinary differential equation (ODE) models, which simulate the circadian rhythm by using a light exposure profile estimated from sleep data. These ODE models require an initial condition (IC) representing the initial state of the circadian rhythm, which is unknown in real-world settings. However, it is unclear how the uncertainty of IC affects the accuracy of circadian phase estimation. In this study, by using sleep data collected from 28 shift workers using ActiWatch (mean

duration = 56 days, range = 34-75 days), we found that ≥ 18 days of sleep data are required for the circadian phase to become independent of the subjective IC choice. The result showed that without an accurate IC, circadian phase estimation is dependent on subjective IC choice, meaning that circadian phase estimates in the first 17 days are not reliable. Indeed, these days were reduced to 11-14 days on average when previous studies' IC estimation methods were used. To further shorten this length, we developed new IC estimation methods-period-based and work history-based sleep methods-that incorporate daily variations in sleep history. Notably, the new methods reduced the number of days required for reliable circadian phase estimation to about 5 days. Hence, our approach allows a larger portion of circadian phase estimates from given sleep data to be used as reliable information. The superiority of our methods paves the way for improved circadian phase estimation, ultimately enhancing the practicality of chronotherapy applications.

[Lien vers l'article](#)

Adverse childhood experiences and personality traits associate with excessive fatigue in Norwegian nurses.

Hiestand S, Pallesen S, Forthun I, Waage S, Østbye T, Vedaø Ø, et al. *Front Psychol.* 2026;17:1771618.

INTRODUCTION: Nurse fatigue may cause medical errors, absence and turnover. Prior research has largely emphasized modifiable factors like work schedules. This focus may overlook non-modifiable individual factors that also meaningfully contribute to fatigue risk. This study therefore aimed to investigate the relationship between potentially non-modifiable factors and excessive fatigue in nurses. **METHODS:** This longitudinal cohort study investigated adverse childhood experiences and personality traits in relation to excessive fatigue in nurses. Adverse childhood experiences were assessed with four questions previously used in the Norwegian context. Personality traits included the Big Five traits (Mini-IPIP), morningness-eveningness (Horne and Östberg Morningness-Eveningness Questionnaire reduced scale), circadian type (flexibility and languidity, Circadian Type Inventory), and workaholism (Bergen Work Addiction Scale). Questionnaire data was collected at various time points from an ongoing cohort study known as the Survey of Shift work, Sleep, and Health (REK VEST, no. 088.88). Fatigue was assessed using the Chalder Fatigue Questionnaire and excessive fatigue was considered as scores of ≥ 4 . The study sample included 741 non-pregnant Norwegian nurses. Logistic regression analyses were used to investigate associations between adverse childhood experiences, personality traits, and excessive fatigue. **RESULTS:** Nurses who lacked a trusted adult in childhood (adjusted odds ratios (aOR) = 4.68, 95% CI = 1.97-11.11), reported bad memories (aOR = 4.94, CI = 2.70-9.03), or perceived their childhood as difficult (aOR = 4.53, CI = 2.40-8.57) had $>4x$ the odds of excessive fatigue. High neuroticism (aOR = 2.37, CI = 1.56-3.59), low conscientiousness (aOR = 2.02, CI = 1.30-3.12), and high languidity (aOR = 5.01 CI = 2.98-8.39) increased odds of excessive fatigue. Morning types had lower (aOR = 0.65 CI = 0.45-0.93), while evening types had higher odds (aOR = 1.55 CI = 1.02-2.34) of excessive fatigue compared to intermediate types. Lastly, workaholism increased odds of excessive fatigue (aOR = 2.70 CI = 1.21-6.04). **DISCUSSION:** In past literature, nurse fatigue has been studied in the context of pain, (shift)work, mental-health and other modifiable factors. This study indicates factors that are less modifiable and potentially difficult to address within the working environment, including adverse childhood experiences and personality traits, may nonetheless play important roles in excessive fatigue in nurses.

[Lien vers l'article](#)

GLP-1 Receptor Agonists at the Crossroads of Circadian Biology, Sleep, and Metabolic Disease.

Gandhi A, Phyu EM, Koom-Dadzie K, Dickson KB, Halm J. *Int J Mol Sci.* 2026 Mar 21;27(6).

Glucagon-like peptide-1 receptor agonists (GLP-1RAs) have transformed the management of type 2 diabetes and obesity, yet their actions extend beyond glycemic control and weight loss. This narrative

review synthesizes current preclinical and clinical evidence examining the bidirectional relationship between glucagon-like peptide-1 (GLP-1) receptor agonists and circadian biology. A structured literature search was conducted in PubMed using combinations of the terms 'GLP-1,' 'circadian,' 'chronobiology,' 'sleep,' 'obesity,' and 'type 2 diabetes' through January 2026. Accumulating evidence indicates that GLP-1 physiology is closely coupled to circadian timing systems and sleep-wake regulation. In this narrative review, we synthesize emerging data that reframe GLP-1RAs as chronometabolic modulators, acting at the intersection of metabolism, circadian biology, and sleep. We review circadian control of GLP-1 secretion by intestinal L-cells, emphasizing the role of core clock genes and the vulnerability of incretin rhythms to circadian misalignment from shift work, nocturnal light exposure, and sleep loss. We then examine GLP-1 receptor signaling within central and peripheral clock networks, including feedback effects on hypothalamic and hepatic circadian regulation. Emerging data suggest that GLP-1 signaling is under circadian regulation and may, in turn, influence central and peripheral clock systems. Comparative discussion of semaglutide, liraglutide, and tirzepatide highlights agent-specific pharmacokinetics and emerging clinical data linking GLP-1RA therapy to sleep outcomes, particularly obstructive sleep apnea. Finally, we outline translational opportunities for chronotherapy and precision medicine, positioning GLP-1RAs as integrative tools for metabolic and sleep-related disease rather than purely weight-centric therapies. We propose that GLP-1 receptor agonists may function as chronometabolic modulators, with potential implications for personalized chronopharmacological strategies in metabolic disease.

[Lien vers l'article](#)

Burnout and Biological Biomarkers in Emergency and Acute-Care Healthcare Workers: A Systematic Scoping Review with Evidence Mapping.

Butoi MA, Belghiru VI, Puticiu MI, Tat R, Golea A, Rotaru LT. *Medicina (Kaunas)*. 2026 Mar 12;62(3).

Background and Objectives: Burnout is highly prevalent among emergency and acute care healthcare workers (HCWs), yet biological correlates remain debated because candidate biomarkers are strongly shaped by circadian timing, shift work, sleep loss, and overlapping affective symptoms. We mapped post-2018 evidence of biological biomarkers assessed alongside validated burnout measures in emergency department (ED), emergency medical services (EMS), and related acute care settings. Specifically, we asked whether reproducible biological correlates of burnout can be identified in emergency and acute-care healthcare workers when biomarker endpoint class and sampling context are systematically considered. **Materials and Methods:** We conducted a systematic scoping review with evidence mapping (PRISMA-ScR). PubMed/MEDLINE and the MDPI platform were searched for English-language studies published from 2018 onward (through January 2026). Eligible quantitative studies enrolled ED/EMS or acute care HCWs, assessed burnout using validated instruments, and reported at least one biological biomarker. Evidence was charted by biomarker domain and endpoint class (basal measures, stress reactivity paradigms, and chronic indices such as hair-based markers). **Results:** Overall, 19 studies were included in mapping/synthesis. Biomarker selection clustered around the hypothalamic-pituitary-adrenal axis (cortisol; $n = 10/19$), with fewer studies focused on autonomic function (heart rate variability; $n = 2/19$) and immune-inflammatory markers ($n = 2/19$), and single-study coverage for oxidative stress ($n = 1/19$), cardiometabolic candidates ($n = 1/19$), cellular aging ($n = 1/19$), neuroglial/multi-system candidates ($n = 1/19$), and feasibility-oriented multi-marker designs ($n = 1/19$). Reported associations with burnout were heterogeneous in direction and magnitude, but were more interpretable when endpoint class, timing anchors, and shift/sleep-related covariates were explicitly reported. Rates of confounder adjustment were low across studies (e.g., only 3/19 reported multivariable adjustment, and none systematically measured sleep or circadian factors), substantially limiting interpretability. **Conclusions:** The 2018+ literature does not support a single reproducible biomarker for burnout in emergency and acute care workforces. Evidence instead suggests multi-system dysregulation that is highly sensitive to endpoint class, sampling timing, and contextual confounding. Future studies should prioritize timing-anchored repeated-measures protocols across

shift and recovery windows, jointly model sleep/circadian factors and depressive symptoms, and evaluate multi-marker panels and intervention responsiveness.

[Lien vers l'article](#)

Making sleep behaviors interpretable: adapting the two-process model of sleep regulation to longitudinal Fitbit sleep and activity behaviors for health insights.

Coleman PL, Annis J, Master H, Gustavson DE, Han L, Brittain E, et al. *medRxiv*. 2026 Mar 3.

BACKGROUND: As sleep data from wearable devices are increasingly available in health research, there are new opportunities to understand sleep regulation behaviors as modifiable risk factors for disease. At such a large scale (tens of thousands of people over millions of day-level observations), prioritizing and interpreting sleep behaviors is challenging while maintaining biological relevance and modifiability. In this work, we aim to address this challenge by proposing a framework to interpret Fitbit data through a well-known neurobiological framing of sleep regulation, the two-process model. **METHODS:** We use data from the All of Us Research Program, a national biobank with passively collected Fitbit data for 32,292 people across 15,754,893 total days. We map Fitbit behaviors ((b)) to either circadian (C) or homeostatic (S) processes. Using iterative exploratory factor analysis to obtain weights, the Fitbit C(b) and S(b) are then weighted at the level of each day to create C(b) and S(b) scores. **FINDINGS:** C(b) and S(b) scores were found to align with expected real-world relationships with age, seasonality, shift work, and napping. C(b) and S(b) scores were interpreted with relation to depression, where it was found that S(b) scores are highly associated with likelihood of diagnosis (OR = 1.5, $p < 2e-16$) while C(b) and S(b) scores are equally associated with severity (S(b) score $\beta = 0.2$, C(b) score $\beta = 0.21$, $p < 2e-16$). **INTERPRETATION:** C(b) and S(b) scores support longitudinal interpretation (e.g., changes in S(b) around treatment), aggregation (e.g., differences in C(b) between two groups), and actionable modification (e.g., reduce naps to improve poor S(b)). Overall, our behavior scores allow for interpretation of wearables sleep data and can be utilized across many disease contexts to better understand how sleep influences health.

[Lien vers l'article](#)

Inflammatory marker dynamics in shift work sleep disorder: a data-driven approach among rotating shift workers.

Bao Y, Liang B, Zhan T, Shen G, Sun D, Lin J, et al. *Front Neurosci*. 2026;20:1764454.

BACKGROUND: Shift work sleep disorder (SWSD) negatively affects overall health and quality of life. This cross-sectional study aimed to elucidate the association of SWSD with blood cell counts (BCCs) and related inflammatory indices over a period of 3 years. **METHOD:** This retrospective cross-sectional study involved rotating shift workers. Linear mixed-effects models were applied to examine the associations between group stratification (based on sex and sleep status) and longitudinal trajectories of inflammation indices. **RESULTS:** Participants with SWSD (regardless of sex) showed significantly steeper increases in neutrophil levels during the second year (female: $\beta = 0.079$, $p = 0.030$; male: $\beta = 0.076$, $p = 0.032$). By the third year, marked changes were observed in monocyte levels, although these were not statistically significant in mixed models. Composite inflammatory indices, including the neutrophil-to-lymphocyte ratio, monocyte-to-lymphocyte ratio, systemic immune-inflammation index, systemic inflammation response index, systemic inflammatory composite index, and neutrophil-to-monocyte ratio, exhibited consistent and significant upward trends in the SWSD group (all $p < 0.05$, adjusted for false discovery rate). Notably, the platelet-to-lymphocyte ratio showed a sex-specific increase only in males with SWSD ($\beta = 7.310$, $p = 0.006$). **CONCLUSION:** Long-term rotating shift workers with sleep disorders exhibited fluctuating trends in BCCs and related inflammatory indices over time, with neutrophil and monocyte counts showing increases. These patterns suggest that dynamic alterations in BCCs and related inflammatory indices are associated with circadian disruption

among rotating shift workers and may have potential relevance for future risk stratification and monitoring.

[Lien vers l'article](#)

Conduites addictives

Aucun article dans ce bulletin.

Reproduction

Pregnancy and parenthood among Italian residents in anesthesia and intensive care - a national survey.

Boscolo A, Battaglini D, Bove T, Cinella G, Discenza A, Piazza O, et al. *J Anesth Analg Crit Care*. 2026 Mar 3;6(1).

BACKGROUND: Parenthood during medical residency is challenging, especially in Anesthesia and Intensive Care Medicine, given the irregular schedules, long working hours, and high levels of stress. Prior studies among surgeons and intensivists reported increased miscarriage and pregnancy complications, while cultural stigma and limited support further increase difficulties. This national survey among Italian Anesthesia and Intensive Care Medicine residents aimed to elucidate the experience of (i) parenthood and pregnancy outcomes, (ii) maternity leave and work arrangements, (iii) breastfeeding support, and (iv) workplace well-being. **METHODS:** A national anonymous online survey (ethical approval no. 0017063), endorsed by the National Board of Anesthesia and Intensive Care Professors (Collegio dei Professori di Anestesia e Rianimazione-CPAR), was systematically distributed via institutional emails to members of the Italian Society of Anaesthesia, Analgesia and Intensive Care Medicine (SAARTI). The questionnaire, designed with the BRUSO model and pretested, targeted Italian residents in Anesthesia and Intensive Care Medicine. **RESULTS:** A total of 1387 residents completed the survey (national response rate: 33%, 62% female). Most responses (61%, 748/1387) and pregnancies (52%, 151/289) were from Northern Italy. Parenthood was reported by 24% (208/862) female residents and 18% (92/525) males ($p = 0.004$). Complications during full-term pregnancies were more frequent among female residents than among partners of male colleagues (47% vs 22%, $p < 0.001$). When healthy residents were pregnant, 34% were reassigned to alternative tasks, 11% lost their tasks with no new assignments, and 44% were declared at high risk regardless of being healthy and remained at home. Breastfeeding was reported in 61% (144/235), and only 33% (48/144) requested leave. Workplace support was inadequate, particularly during work arrangements, breastfeeding, and fertility attempts. Finally, residents from Northern Italy declared to work more than 38 h/week ($p < 0.001$). Pregnancy-related complications were similar between regions. **CONCLUSIONS:** This first Italian national survey, among anesthesia residents, highlights organizational and cultural barriers to parenthood, as well as significant regional disparities, stressing the need for institutional strategies ensuring equity, safety, and workplace well-being.

[Lien vers l'article](#)

Sleep Disruption and Shift Work Associate with Increased Risk of Reproductive Endocrine Disorders: Evidence from UK Biobank and Mendelian Randomization.

Zhang H, Luo R, Fang Y, Wang H, Li Y. *Int J Womens Health*. 2026;18:571454.

BACKGROUND: Disrupted sleep and shift work are linked to multiple adverse health outcomes, but their association with reproductive endocrine disorders (REDs) and underlying mechanisms remain unclear. Understanding this relationship is crucial for public health, given the growing prevalence of sleep disturbances and shift work in modern societies. **PURPOSE:** To investigate the impact of sleep traits and shift work on RED risk in women, explore inflammatory mediation, and assess potential causality using Mendelian randomisation (MR). **METHODS:** We analysed 244,561 women in the UK Biobank. Sleep duration, quality, and shift work were self-reported. Cox models estimated hazard ratios (HRs) adjusting for demographic, lifestyle, and comorbidities. Interaction models tested joint effects of sleep and shift work. Mediation analyses examined inflammatory biomarkers. Two-sample MR analyses were conducted using large-scale genome-wide association study (GWAS) summary statistics to evaluate causal effects of sleep length or sleep quality traits on REDs. **RESULTS:** A U-shaped association was observed between sleep duration and RED risk, lowest at 7 h/day. Short (≤ 5 h/day; HR = 1.15, 95% CI: 1.02-1.31) and long (≥ 9 h/day; HR = 1.16, 95% CI: 1.04-1.29) sleep duration, poor sleep

quality, and night shift work (HR = 1.40, 95% CI: 1.11-1.75) independently increased RED risk. The combination of night shift work and ≤ 5 h/day sleep duration showed the highest risk (HR = 1.72, $p = 0.0219$). Neutrophils, CRP, and leukocytes mediated 5-13% of these associations. MR analyses supported significant causal effects of short sleep duration, insomnia, and daytime napping on REDs. CONCLUSION: Abnormal sleep duration, insomnia, and night shift work are independent risk factors for REDs in women, with inflammation partially mediating these associations. The highest risk was observed in women with short sleep combined with night shift work. MR analyses provide genetic evidence for the causal role of short sleep, insomnia, and daytime napping in REDs. These findings highlight the importance of screening for sleep disturbances and shift work in RED risk assessment, suggesting that interventions targeting sleep duration and shift work schedules may help reduce RED incidence and improve reproductive health. This study is the first to integrate both prospective and genetic evidence to identify causal pathways.

[Lien vers l'article](#)

Low-Dose Melatonin, Climacteric Symptoms and Sleep in Female Shift Workers: A Randomized Controlled Trial.

Saraiva SP, D'Aurea CVR, Luz CSS, Amaral FG, Cipolla-Neto J, Marqueze EC, et al. *J Pineal Res.* 2026 Mar;78(2):e70140.

Sleep disturbances and mood changes are common during the climacteric, often linked to hormonal fluctuations caused by reduced ovarian function. Evidence suggests that long-term melatonin administration may improve the quality of life in climacteric women. This study aimed to evaluate the effects of exogenous melatonin on climacteric symptoms, sleep quality, and reproductive hormones in women working fixed shifts. A randomized clinical trial was conducted with 46 nurses working fixed shifts at a hospital in São Paulo: morning (7:00-13:00, $n = 16$; intervention = 7, placebo = 9), afternoon (13:00-19:00, $n = 15$; intervention = 8, placebo = 7), and night (19:00-7:00, $n = 15$; intervention = 7, placebo = 8). Participants were randomly assigned to receive either 0.3 mg of melatonin or placebo. For night shift workers, melatonin was administered only on nights off, when they were sleeping at home; the same procedure was applied to morning and afternoon workers. Data collection included sociodemographic information, self-reported sleep quality, and menopausal symptoms. Blood samples were collected at home to measure luteinizing hormone (LH), follicle-stimulating hormone (FSH), estradiol, and progesterone before and after the intervention. A significant main effect of melatonin was observed, with a 15.8% reduction in climacteric symptoms compared with placebo ($p = 0.01$), independent of age or sleep duration, while no significant interaction with work shift was detected. Sleep quality improved by 35.33% on days off in the intervention group ($p < 0.001$), with morning shift workers showing a 32.46% improvement ($p < 0.05$). No significant changes were observed in reproductive hormone levels or total sleep duration. Exogenous melatonin effectively alleviates climacteric symptoms and improves sleep quality on days off, particularly among day-shift workers, without affecting reproductive hormone concentrations or total sleep duration. Trial Registration: RBR-10whktxm (UTN: U1111-1305-6221). Registered on 13 August 2025, retrospectively registered.

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Ovarian Rev-erb α : a central regulator of fertility following chronodisruption.

Gupta S, Kumawat S, Kaushal V, Arora R, Kumar S, Sharma R, et al. *Front Endocrinol (Lausanne).* 2026;17:1742988.

INTRODUCTION: Circadian rhythm disruption caused by shift work, nutritional imbalance, and the stresses of modern life can alter hormone secretion, lead to menstrual irregularities, impair follicle development, and contribute to ovarian hypoplasia. The mechanistic role of circadian rhythm disruption in reproductive disorders has been thoroughly investigated. Nuclear receptors are known

to play an important role in female reproduction and in maintaining pregnancy. Rev-erb α , a circadian nuclear receptor, is a key component of the circadian clock and helps sustain circadian rhythm. **MATERIALS AND METHODS:** We evaluated the potential prophylactic and therapeutic functions of Rev-erb α in supporting female fertility by orchestrating a series of events that culminate in successful pregnancy. We generated a circadian rhythm-disrupted female mouse model to study fertility. **RESULTS:** The Rev-erb α ligand SR9011 improved the fertility index in these circadian rhythm-disrupted female mice. Moreover, SR9011 treatment restored impaired ovarian follicular cell proliferation and division, regulated steroidogenesis and steroid hormone production, enhanced progesterone and melatonin secretion, and mitigated the adverse effects of circadian disruption on folliculogenesis. SR9011 also reduced follicular atresia and promoted follicle development in CR-disrupted mice. Rev-erb α is a key regulator influencing oocyte retrieval, as demonstrated in mice treated with the Rev-erb α antagonist SR8278. **DISCUSSION/CONCLUSION:** These findings suggest that targeting Rev-erb α signaling and elucidating its mechanistic role in female reproduction could inform the development of more effective strategies for treating female infertility. As a sought-after druggable target, Rev-erb α has a broad range of potential therapeutic applications and has recently attracted considerable attention in the context of female infertility treatment.

[Lien vers l'article](#)

Survey-based exploration of menopause transition experiences of female staff employed in UK ambulance services (CESSATION Phase 2).

Prothero L, Brown S, Noakes T, Clark A, Foster T. *Br Paramed J*. 2025 Mar 1;9(4):7-16.

INTRODUCTION: Often women will experience the menopause and its associated symptoms during their working lives, and there is now an increased focus on improving menopause support offerings in the workplace. The main aim of this study was to explore the menopause transition experiences of ambulance staff and identify workplace interventions that may offer improved support to menopausal staff within the ambulance sector. **METHODS:** A purpose-designed, online survey was disseminated to UK ambulance services for voluntary completion between December 2021 and February 2022. Topics that were covered included participant age and role, menopause transition phase, symptoms experienced and their severity, expectation and effect of symptoms, work pattern, need for work leave and policy awareness. An opportunity for additional menopause-related comments was included. Quantitative data analysis was performed using descriptive and exploratory statistics; qualitative data were analysed using content analysis. **RESULTS:** A convenience sample of 1896 survey responses was obtained; the majority of participants self-reported to be in the menopause transition. Pre- and perimenopausal participants were more likely to undertake shift-based work; menopausal and postmenopausal participants were more prevalent in office-based roles. Shift-working participants reported more severe tiredness or low energy levels, hot flushes, night sweats and gastric problems; office-working staff reported more severe issues with vaginal health, weight, skin changes and oral health. There were significant associations between role type, severity of symptom impact and need for leave from work. Recommended areas for organisational improvement to support menopausal women in the ambulance workplace are alternative work opportunities, menopause education and training, appropriate menopause policies and guidance, expert resources and support and access to improved physical work environments. **CONCLUSION:** Women can experience menopausal symptoms that impact their working lives; their work role and setting can influence their menopause experiences. Workplace interventions for improved menopause awareness, support and staff well-being are warranted.

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Polyexposition

Photoperiod perturbations impact perfluorohexane sulfonate (PFHxS) induced developmental toxicity.

Ferdous SR, Rojas A, Frank C, Berry Y, Sabatini HM, Luo X, et al. *J Hazard Mater.* 2026 Apr 1;507:141607.

Perfluorohexane sulfonate (PFHxS) is a persistent perfluoroalkyl substance with increasing scrutiny due to its widespread occurrence and potential for developmental neurotoxicity. In this study, we investigated how photoperiod - a critical regulator of circadian physiology- modulates PFHxS toxicity in zebrafish embryos. Photoperiods are highly relevant in today's context, where artificial lighting, shift work, and time-zone travel increasingly disrupt natural light-dark cycles. To evaluate this variable, embryos were raised under either a standard 14-hour light:10-hour dark (14 L:10D) cycle, constant darkness (24D) or constant light (24 L) and simultaneously exposed to PFHxS across a concentration range (0.0025-25 μ M) from 2 to 120 h post-fertilization. Since 24 L did not elicit any significant phenotypic differences, this photoperiod was excluded from further studies. LC-MS analysis revealed comparable PFHxS uptake across 24D and 14 L:10D photoperiods, ruling out bioaccumulation-induced differences. However, photomotor behavioral assays showed photoperiod-specific phenotypes, with hyperactivity during light epochs under 24D. PFHxS elevated melatonin levels under 14 L:10D but reduced them under 24D, indicating circadian endocrine disruption. Transcriptomic analysis revealed greater PFHxS-induced dysregulation under 24D, including suppressed DNA replication and cell cycle pathways and increased oxidative stress. These effects were concordant with elevated ROS, increased DNA damage, and reduced proliferation. Eye-specific studies revealed reduced retinal proliferating cells and increase in cone Arrestin3a under 24D, but not 14 L:10D, suggesting that aberrations in eye development may be a driver of photomotor phenotype. Collectively, our findings highlight the critical role of environmental lighting in shaping toxicological outcomes and emphasize the need to incorporate photoperiod context into risk assessments.

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Pathologies cardiovasculaires

Overweight or obesity and their association with cardiometabolic risk factors among oilfield workers in Chinese population: a cross-sectional study.

Yu X, Zhang S, Liu H, Li Q, He Y, Jia L, et al. *Front Public Health*. 2026;14:1658235.

OBJECTIVES: Overweight and obesity are major factors associated with cardiometabolic disorders, yet evidence from occupational populations remains limited. This study aimed to assess the association between body mass index (BMI) and six cardiometabolic risk factors (CRFs)-hypertension, diabetes, high total cholesterol (TC), high triglycerides (TG), high low-density lipoprotein cholesterol (LDL-C), and low high-density lipoprotein cholesterol (HDL-C)-among Chinese oilfield workers. **METHODS:** A cross-sectional analysis was conducted among 3,048 participants undergoing routine health examinations in 2022. BMI was categorized using Chinese-specific criteria. Logistic regression models and restricted cubic spline (RCS) analyses were used to evaluate associations between BMI and six CRFs. Subgroup analyses were conducted for each of the six CRFs across pre-specified effect modifiers (age, sex, chemical exposure, night-shift work, and smoking status), and sensitivity analyses were also performed. **RESULTS:** Overweight and obesity were associated with higher odds of all CRFs, with obesity showing the strongest associations. In fully adjusted models, obesity was significantly associated with higher odds of hypertension (OR = 7.08), diabetes (OR = 3.25), high TC (OR = 1.81), high TG (OR = 4.80), high LDL-C (OR = 3.07), and low HDL-C (OR = 3.36) compared to normal participants. RCS analyses revealed dose-response pattern, with nonlinearity for high TG and low HDL-C (both $p < 0.001$). Subgroup analyses showed generally consistent associations, with stronger associations observed for hypertension among current smokers, for diabetes in older participants, and for low HDL-C in male. Sensitivity analyses supported the robustness of these findings. **CONCLUSION:** BMI was independently associated with higher odds of hypertension, diabetes, and dyslipidemia, with obesity exhibiting the strongest associations across CRFs. These findings underscore the relevance of excess adiposity in relation to early metabolic abnormalities and may help inform occupational health monitoring strategies.

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Home health aides' perspectives towards achieving cardiovascular health and life's essential 8: a qualitative study.

Sterling M, Avgar A, Phillips E, Kuo EF, Hernandez MY, Ringel J, et al. *BMC Public Health*. 2026 Mar 26;26(1).

BACKGROUND: Despite frequently providing care to adults with cardiovascular (CV) disease in the home, home health aides and attendants (HHAs) have poor CV health (CVH) themselves, which is problematic for their own health and potentially their patients. We elicited the perspectives of HHAs towards achieving optimal CVH, including the American Heart Association's (AHA's) Life's Essential 8 (LE8). **METHOD:** We conducted focus groups and interviews with HHAs from January 2023 to January 2024 in partnership with the 1199SEIU Training and Employment Fund, a benefit fund of the largest healthcare union in the US. We included English-and Spanish-speaking HHAs at risk for poor CVH, defined as having: 1) hypertension, 2) obesity/overweight, and 3) ≥ 1 other CV disease risk factors (hyperlipidemia, diabetes, smoking, and physical inactivity). **RESULTS:** Twenty-two HHAs employed by 12 home care agencies participated. They had a median age of 60 years (IQR 50, 64), 21 (95%) were female, 9 (41%) were Black, and 12 (55%) were Latinx. Consistent with the Social-Ecological Model, 5 themes emerged. At the individual level, many HHAs were motivated to carry out aspects of the LE8 (diet, physical activity), but faced challenges doing so, including varied perceptions of the severity of their CVH and constraints of their job (e.g. limited time). At the interpersonal level, HHAs perceived

that their relationship with their patients influenced their own CVH, as well as that of their patients'. At the organizational level, shift-work and long commutes were barriers to certain LE8 (i.e. sleep). Notably, HHAs sought community among peers to learn about CVH. Policies and structural inequities (health insurance, citizenship) were barriers to achieving CVH. CONCLUSION: HHAs' ability to achieve CVH is likely influenced by personal, interpersonal, organizational, and policy-level factors. Findings can inform future interventions better tailored to this workforce and the context in which they provide care. Such interventions can aim to improve not only HHAs' CVH, but potentially that of their patients. SUPPLEMENTARY INFORMATION: The online version contains supplementary material available at 10.1186/s12889-026-26998-x.

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Cardiovascular risk factors in 101 night shift and day workers in industry. A cross-sectional study.

Skogstad M, Alsaedi S, Sirnes PA, Mamen A, Skare Ø, Goffeng E, et al. *J Occup Environ Med*. 2026 Mar 10.

OBJECTIVE: This cross-sectional study assesses cardiovascular disease (CVD) risk factors in industrial rotating night shift and day workers. METHODS: We examined 27 day workers; 40 night shift workers with high and 34 with low night loads. We assessed sleep, blood pressure (BP), pulse wave velocity (PWV), carotid intima-media thickness (cIMT), maximal oxygen uptake ($\dot{V}O_{2max}$), glycosylated haemoglobin (HbA1c), lipids, focusing on inflammatory markers, and adipokines. RESULTS: High load night shift workers had higher inflammation and lower adiponectin level compared to other shift workers and day workers. Night shifts of 8 and 12 hours shortened sleep. Number of night shifts was positively associated with inflammatory markers and negatively associated with adiponectin. CONCLUSIONS: Night shift work is associated with CVD risk factors. Shift schedules with fewer night shifts and longer recovery periods could mitigate it.

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Metabolic Syndrome, Cardiovascular Risk, and Health-Related Quality of Life Among Police Officers in Madeira: A Cross-Sectional Occupational Health Study.

Pina J, Santos V, Massuça LM. *Healthcare (Basel)*. 2026 Mar 17;14(6).

Background/Objectives: Police work has been associated with increased cardiometabolic risk due to occupational stress, shift work, and lifestyle factors. This study aimed to determine the prevalence of MetS and 10-year cardiovascular risk, and to analyse differences by sex and occupational function among police officers (POs) in Madeira. Methods: A cross-sectional study was conducted among 109 POs from the Autonomous Region of Madeira. MetS was defined according to the National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III) criteria, and 10-year cardiovascular risk was estimated using the Framingham Risk Score. Health-related quality of life (HRQoL) was evaluated using the SF-36 questionnaire (SF-36v2). Comparisons were performed by sex and professional role (indoor versus outdoor). Results: (i) The prevalence of MetS was 28.4%; (ii) Male POs had significantly higher Framingham Risk Scores than female POs, although no sex differences in MetS prevalence were observed; (iii) Approximately 20% of POs were classified as high cardiovascular risk; and (iv) Among male POs, those performing indoor duties showed higher cardiovascular risk scores. Conclusions: POs in Madeira present a considerable burden of cardiometabolic risk factors. These findings highlight the need for targeted occupational health strategies and regular cardiovascular screening within police organisations.

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Do the Long-Term Cardiometabolic Effects of Night Shift Work Differ Between Men and Women? A 17-Year Cohort Study of the U.S. Workforce.

Romero-Parra M, Caballero Ó, García-Hermoso A, López-Gil JF, Páez-Herrera J, Yáñez-Sepúlveda R, et al. *Saf Health Work*. 2026 Mar;17(1):70-5.

BACKGROUND: Shift work, particularly in night shifts, has been linked to adverse health outcomes, including disruptions in circadian rhythms that may contribute to metabolic disorders. However, sex-related differences in the impact of night shift work on cardiometabolic health remain understudied. This study sought to examine the relationship between night shift work and cardiometabolic health in young adults, identifying potential sex-related differences. **METHODS:** In this prospective cohort study, a total of 3201 participants (mean age: 22.08 years, 59.9% women) were analyzed over a 17-year period. Relative risks (RRs) with 95% confidence intervals (CIs) were calculated to evaluate the impact of night shift work on cardiometabolic health outcomes, including obesity, hyperlipidemia, hypertension, type 2 diabetes, and metabolic syndrome (MetS). **RESULTS:** At Wave V, 74.7% of participants were diagnosed with overweight/obesity, 51.8% with abdominal obesity, 15.5% with hyperlipidemia, 29.1% with hypertension, 8.3% with type 2 diabetes, and 20.9% with MetS. Night shift work was associated with an increased risk of obesity and abdominal obesity in women (RR = 1.99, 95% CI: 1.08 to 3.65 and RR = 1.60, 95% CI: 1.07 to 2.56, respectively) but not in men. Women also showed an elevated risk of diabetes (RR = 2.69, 95% CI: 1.49 to 4.86), whereas no significant relationship was identified in men. Night shift work was not significantly associated with hypertension and MetS in either men or women. **CONCLUSION:** Women working night shifts may benefit from targeted interventions for cardiometabolic health, particularly in managing weight and preventing diabetes, while men did not exhibit similar associations.

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Healthy Work, Healthy Heart? The Role of Job Characteristics in Promoting Heart Health.

Peters SE, Neidlinger SM, Alahmad B, Wagner GR. *Cardiol Clin*. 2026 May;44(2):179-91.

Cardiovascular disease remains a leading cause of death among workers, yet the role of work conferring increased risk as well as opportunities for prevention are often overlooked. This chapter explores job characteristics and worker demographic factors that shape cardiovascular health. Key risk factors include long work hours, shift work, high psychological demands with low autonomy, workplace incivility and bullying, poor work-life balance, and environmental hazards, including chemical agents, noise, and air pollution. Chronic exposure to adverse working conditions triggers sustained stress responses while fostering unhealthy coping behaviors. Yet thoughtful work design can also promote heart health.

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Long working hours and the risk of ischemic cardiac death: A systematic review and a meta-analysis.

Boussaid M, Chaouch MA, Limem H, Mlouki I, Mesrati MA, Mhamdi S, et al. *Tunis Med*. 2025 Sep 9;103(9):1210-7.

INTRODUCTION: The relationship between occupational stress, particularly long working hours, and health outcomes such as ischemic cardiac death has garnered increasing attention. Myocardial infarction, a primary cause of sudden cardiac death, is significantly influenced by workplace stress. This systematic review and meta-analysis aim to explore the association between long working hours and the risk of ischemic cardiac death, building upon the foundation of previous studies indicating a potential link between prolonged occupational stress and cardiovascular health issues. **METHODS:** We systematically searched several databases up to 30 November 2022 without language restrictions,

using a comprehensive set of keywords related to occupational stress and ischemic heart disease. The selection criteria focused on clinical trials assessing the risk of occupational stress and cardiovascular disease in individuals of working age from diverse industrial settings. Quality assessment was performed using the STROBE scale, and statistical analysis was conducted using RevMan web software, considering hazard ratios and odds ratios as relative risk estimates. RESULTS: Our search yielded 20 trials, with 18 meeting the inclusion criteria. These studies encompassed a wide range of years (1992-2019) and involved a total of 288,278 individuals. Our meta-analysis revealed no significant risk increase for ischemic heart disease mortality for those working 41 to 49 hours per week compared to 35 to 40 hours. However, working more than 55 hours per week was associated with a 17% increased risk of ischemic heart disease mortality (RR=1.17, 95% CI [1.05 to 1.31]). CONCLUSIONS: Extended working hours are associated with an increased risk of ischemic heart disease mortality, emphasizing the importance of addressing occupational health and safety standards. This study contributes to the growing body of evidence on the health implications of long working hours and underscores the necessity for preventive strategies to protect worker health in the modern work environment.

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