The clock changed.
Your body follows the light.



Original AI-generated conceptual art. No participants or scientific data depicted.

At 2 a.m. on November 1, 2026, clocks returned to 1 a.m. in U.S. places that observe daylight saving time. Missouri and Chicago are back on Central Standard Time. We changed the label on the hour; we did not add daylight to the day. [1]

A body does not update as instantly as a phone. Light helps set its daily timing. But how much does changing our light environment actually improve sleep? Research published in 2026 makes that question more interesting, and more specific.

2026: measuring light in ordinary life

A July 10, 2026 study followed 89 adults in Manchester with wrist-worn light sensors, Fitbit sleep trackers and diaries. More stable light patterns across the week, and brighter daytime exposure, were associated with earlier sleep timing. Some light measures were also associated with a greater proportion of wearable-estimated deep sleep early in the night. [2]

This is a useful move beyond laboratory lighting. It is also observational: people who sleep earlier may arrange their days differently. Wrist sensors do not measure exactly what reaches the eyes, and consumer sleep staging is not a laboratory EEG. The study cannot tell us that adding a certain number of minutes outside will produce more deep sleep. Data were collected in 2022-2024; the paper is new, not the measurements.

September 2026: a careful test in older adults

The CleverLights crossover trial compared two three-day laboratory lighting conditions in 12 older adults with self-reported poor sleep. One provided more blue-enriched light by day and greater blue-light reduction before bed; the other used standard lighting. Sleep was measured with polysomnography. [3]

The main outcome, time awake after initially falling asleep, did not significantly improve: 136 versus 117 minutes in the intervention and control conditions, respectively ($p = 0.338$). Exploratory brain-wave changes are interesting, but they do not overturn that result. With only 12 people and short exposure, this trial cannot rule out smaller or longer-term benefits. It does challenge the promise that changing light alone will reliably fix sleep.

2026: insomnia, daytime sleepiness and cortisol

A randomized pilot study published online June 4, 2026, and in the October journal issue enrolled 42 adults with insomnia. Both groups received cognitive behavioural therapy for insomnia, or CBT-I. One also used morning bright light; the other used a much dimmer placebo lamp. Treatment lasted about a month on average. [4]

Adding bright light did not significantly improve the primary outcome, insomnia severity, compared with placebo light. An exploratory follow-up measure favoured light for daytime sleepiness, which deserves further study. It is not the same as a proven improvement in insomnia.

The researchers also measured the cortisol awakening response. They found no significant added effect of light on that response. This is a direct connection to our cortisol and stress guide: a plausible mechanism is something to test, not a reason to promise a “cortisol reset.” The small sample, variable treatment duration and unmeasured background light exposure limit certainty.

2025: the heart-health connection is worth following

A study published October 23, 2025 linked one week of personal light measurements from 88,905 UK Biobank participants to subsequent cardiovascular records. Brighter nights were associated with higher rates of several cardiovascular diseases. For heart failure, the brightest-night group had an adjusted hazard ratio of 1.56 (95% CI 1.34-1.81) compared with the darkest half. [5]

That is an association, not evidence that darkening a bedroom will reduce an individual's risk by 56%. A single week may poorly represent years of exposure; residual confounding and reverse causation remain possible. The cohort was predominantly White and healthier than the general population. Measurements began in 2013-2016 and outcomes were followed through 2022. Long-term prevention trials are still needed.

What belongs in an ordinary day?

The practical starting point remains modest: for people who sleep at night, make room for daylight, keep sleep and wake times reasonably consistent, and let the evening become dimmer. A dark, comfortable, quiet sleeping space is sensible general sleep guidance. These newer studies do not establish a universal light-therapy dose or replace treatment for persistent insomnia or sleep apnea. [6]

Timing matters. If you are waking much earlier than intended, bright light at that very early hour may move your timing earlier still. Shift work and persistent sleep-timing problems call for advice matched to the schedule. Do not look directly at the sun. [7]

The older study belongs in the background

The 2013 camping experiment remains a useful illustration: eight adults shifted their melatonin rhythms earlier after a week outdoors, without a significant improvement in sleep duration or efficiency. It was a fixed-order summer experiment, not a trial of the November clock change. The current reading now leads with 2026 evidence rather than asking that small historical study to carry the story. [8]

Follow the question into the sleep collection

Our earlier articles, Modern life is changing the shape of sleep and Can the light at home help the aging brain?, remain part of this collection. Continue through light and daily rhythms, cortisol, sleep and dementia, and sleep apnea. Those are connected questions, not interchangeable diagnoses. None of the studies reviewed here establishes dementia prevention or lifespan extension.

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Alive. Awake. Aware. · John Griffin, MD

Sources and review scope

[1] NIST: daylight saving time rules for 2026. Calendar event: November 1, 2026.

[2] Akgun et al. Light exposure and sleep architecture in real-world settings. July 10, 2026. DOI 10.1038/s44323-026-00087-z. Main text, methods and disclosures reviewed; separate supplement not reviewed. Funding includes Wellcome and investigator-initiated Signify/Philips Lighting support; related author interests were disclosed.

[3] Pun et al. The CleverLights Study. September 2, 2026. DOI 10.1111/jsr.70447. PubMed abstract and accessible publisher methods/conclusion extracts reviewed; complete tables, supplements, harms and disclosures not independently reviewed. Registered trial identifier reported by authors: ACTRN12619000138189.

[4] Schmid et al. Lights On or Off? Light therapy as an add-on to CBT-I. Online June 4, 2026; October 2026 issue. DOI 10.1111/jsr.70357. Main text, results table and disclosures reviewed. EUCOR funded the study; SNSF supported one author. Disclosed outside interests include speaking fees and sleep/light-related commercial honoraria. Recruitment: October 2022-December 2024.

[5] Windred et al. Light Exposure at Night and Cardiovascular Disease Incidence. October 23, 2025. DOI 10.1001/jamanetworkopen.2025.39031. Main text reviewed; supplements not independently reviewed. NIH support is indexed. Disclosed outside interests include Lilly consultancy, GSK stock and academic consulting.

[6] NHLBI: healthy sleep habits. [7] NIOSH: light and circadian rhythms, archived educational guidance. Both checked November 1, 2026.

[8] Wright et al. Entrainment of the human circadian clock to the natural light-dark cycle. August 19, 2013. DOI 10.1016/j.cub.2013.06.039. Historical context; main text and methods reviewed earlier in this edition.

Updated November 1, 2026: added three 2026 primary studies and one 2025 cohort; moved the 2013 experiment to background. Article revision 2 / Sleep booklet v1.3. Targeted evidence update, not a systematic review or a fresh audit of all earlier articles. Earlier versions and published social receipts are retained.

Sleep, in context

Light. Stress. Memory. Breathing. A connected reading companion.



Two complete articles and nine connected topic guides. Follow the study behind the October 24 Substack Note, then explore the wider questions with their evidence and limits.

25 October 2026 | Version 1.1

Educational reading, not an individual treatment plan. Illustration is interpretive. This reading booklet is separate from The Arising book manuscript.

Modern life is changing the shape of sleep

A long study in Argentina reveals a shift that screens alone cannot explain

Study publication: October 15, 2026. Reading edition: October 25, 2026.

Over 12 years, researchers watched sleep change in Toba/Qom communities in northern Argentina. Bedtimes and sleep timing moved later, while rural participants slept less. The finding invites a broader question than whether a phone should stay outside the bedroom: what kind of day makes room for rest?

The peer-reviewed study in Current Biology followed communities between 2012 and 2024. Researchers analyzed more than 12,000 sleep events, recorded with actigraphy, from 156 participants measured at different times. Rural groups gained electricity during the study period; semi-urban groups had access earlier.

Actigraphy estimates sleep from movement. It can follow patterns in daily life, but it is not the same as recording every stage of sleep in a laboratory. The study's strength was its long observation of changing communities rather than a comparison made at one moment.

What changed

Both groups showed delays of close to one hour in sleep timing. Rural participants lost about 35 minutes of sleep over a decade. The published figure is smaller than the one-hour duration change reported in the earlier preprint.

Electricity, internet access and smartphones arrived across the observation period. It would be easy to assign the whole change to artificial light or devices. The researchers' analyses did not support that simple explanation: those factors alone could not fully account for the shift over time.

The authors suggest the results may also be consistent with wider processes of modernization and acculturation. That is an interpretation of the pattern, not proof that a particular social change caused it. The study cannot separate every influence on the way a community organizes its days.

The environment around a habit

Sleep is often discussed as though it were entirely an individual decision. This research broadens the frame. Technology enters a life already shaped by work, social expectations and daily routines. The paper does not establish which of those influences mattered most here, but it cautions against reducing a long change to one device.

These were specific communities, not a representative sample of all populations. Observational data cannot randomly assign the many changes occurring around people. The study also did not test a sleep intervention, measure lifespan extension or prove that a given bedtime produces better health.

What is worth carrying forward

The useful insight is that sleep patterns can shift noticeably within a decade. Understanding the surrounding environment may help future research ask better questions about protecting rest.

That is also an invitation for reflection: not simply whether sleep is valued, but whether the day has been arranged to allow it. The difference between intention and opportunity may be one of the most practical questions in healthspan.

Primary source: PubMed 42880258

Can the light at home help the aging brain?

A small randomized trial offers a signal, with important limits

Study publication: July 29, 2026. Reading edition: October 25, 2026.

Light is part of the environment the body responds to every day. In people with mild cognitive impairment, a small randomized trial suggests that tailoring light at home may influence memory and sleep measures. The finding is promising enough to examine carefully, and too preliminary to turn into a dementia-prevention claim.

The study, published in the Journal of Applied Gerontology, enrolled 61 people with mild cognitive impairment. Participants received active or placebo light for 24 weeks. Researchers assessed cognition, sleep, depression and quality of life at baseline and at weeks 13, 25 and 37, including a follow-up after the intervention had ended.

Mild cognitive impairment describes changes in memory or thinking that exceed what is expected with ordinary aging but do not amount to dementia. It is a varied clinical state, and a change on one test does not establish that the underlying course of disease has changed.

The signal in the trial

People assigned to active light improved more on the memory component of the ADAS-Cog assessment than those assigned to placebo; the reported p-value was 0.035. The active group also had greater morning light exposure on the study's circadian measure by week 25.

Several sleep comparisons favored active light. But the values reported in the abstract need careful reading: they appear to describe changes rather than absolute sleep levels. Favoring the intervention can mean less worsening than in the comparison group, rather than clear improvement from the person's own starting point.

For example, the reported change in time awake after initially falling asleep was 2.19 minutes with active light versus 8.23 minutes with placebo. That is not evidence that participants gained eight minutes of sleep, and it is not a measure of dementia prevention.

A useful study is not a finished answer

The sample was small. The abstract does not provide enough detail to establish how clinically meaningful the memory difference was, whether findings persisted after the intervention, or what happened to all the mood and quality-of-life outcomes. Statistical significance alone cannot answer those questions.

This is also not a specification for buying a lamp. A tailored intervention involves timing and exposure, and its results should not be transferred automatically to any product sold as light therapy.

What deserves attention next

The important possibility is that the surroundings in which a person lives may be part of supportive care. Larger trials should test durability, meaningful daily function and the details needed to reproduce the intervention. For now, this is a human research signal about light, sleep and cognition - not proof of disease modification.

Primary source: PubMed 42527889

Light, timing, and the body clock

Light can affect the timing of sleep. How much, when, and under what conditions matter.

What the evidence says

In a randomized crossover experiment, 12 healthy adults read on a bright tablet or in print for prolonged evenings. Tablet reading delayed circadian timing and sleep onset under those conditions.

Keep the limits in view

Small inpatient experiment; maximum-brightness tablet, dim surroundings and roughly four hours of reading over five evenings per condition. Not a fixed penalty for all screens, night modes, or brief use.

A useful question

Is my difficulty chiefly a question of sleep timing, available opportunity, or something disrupting sleep?

Primary sources

Chang et al. · Evening use of light-emitting eReaders negatively affects sleep, circadian timing, and next-morning alertness

Randomized crossover laboratory experiment | 2015

12 healthy adults; five evenings per condition

Read the living topic guide and detailed source limitations

Cortisol, stress, and rhythms

Cortisol is part of normal physiology. A single number should not become a diagnosis - or a villain in the story.

What the evidence says

A 2024 synthesis of 24 acute sleep-loss studies reported inconsistent findings across designs, assays and sampling schedules. We retain the qualitative uncertainty rather than promote one pooled percentage.

Keep the limits in view

Healthy-adult laboratory evidence, mostly small and male-heavy samples. A methods-rendering check remains open, so this collection withholds pooled numerical claims. This does not establish that sleep has no physiological effect.

A useful question

What clinical question would a hormone test actually answer in my situation?

Primary sources

Chen et al. · The effect of acute sleep deprivation on cortisol level: a systematic review and meta-analysis

Systematic review and meta-analysis | 2024

24 studies: 21 crossover studies and three RCTs; search through June 7, 2023

Read the living topic guide and detailed source limitations

Sleep and dementia

Shorter midlife sleep was associated with later dementia in a long-running cohort. That is not proof that adding sleep prevents dementia.

What the evidence says

Whitehall II followed 7,959 participants, with 521 dementia diagnoses. Reported sleep of six hours or less at ages 50 and 60 was associated with higher later dementia incidence than seven hours.

Keep the limits in view

Observational, largely self-reported sleep; confounding, reverse causation and missing data matter. The often-quoted "30%" is one trajectory analysis, not a universal individual effect.

A useful question

Which factors affecting my sleep, cognition, mood or daily function deserve assessment together?

Primary sources

Sabia et al. · Association of sleep duration in middle and old age with incidence of dementia

Longitudinal observational cohort | 2021

7,959 participants; 521 diagnoses; mean follow-up 24.6 years in the age-50 analysis

Read the living topic guide and detailed source limitations

Brain clearance: an open frontier

Research on fluid movement and clearance is fascinating - and more contested than "sleep detoxes your brain" suggests.

What the evidence says

Mouse experiments link sleep-related vascular and chemical rhythms to fluid movement. Another mouse study reported a different clearance pattern using different methods; its interpretation has been formally challenged.

Keep the limits in view

These are preclinical experiments, not evidence that a sleep intervention prevents human dementia, reverses aging or changes someone's lifespan. Do not change medication because of an animal finding.

A useful question

Is the headline describing an animal mechanism, a human biomarker, or an outcome that mattered to people?

Primary sources

Hauglund et al. · Norepinephrine-mediated slow vasomotion drives glymphatic clearance during sleep

Mechanistic mouse experiments | 2025

Experiment-specific samples; SPECT/CT correlation n=15 over five hours; one optogenetic influx experiment n=8

Miao et al. · Brain clearance is reduced during sleep and anesthesia

Mouse tracer experiments; contested interpretation | 2024

Adult male mice, 3-7 months; sample sizes vary across experiments

Author Correction: Fig. 3b source-data column

Formal critique: A curious concept of CNS clearance

Author reply to the critique

Read the living topic guide and detailed source limitations

Insomnia, treatment, and mood

Having time to sleep and being able to sleep are different problems. Treatment research should keep that distinction.

What the evidence says

In a trial of 291 adults aged 60 or older with insomnia, structured CBT-I reduced new or recurrent major depression compared with sleep education during follow-up.

Keep the limits in view

One center and a selected older sample, with appreciable attrition. This is not evidence that every depression can be prevented, or that CBT-I prevents dementia or extends lifespan.

A useful question

Could this be insomnia or another treatable sleep problem, and which assessment and treatment options fit me?

Primary sources

Irwin et al. · Prevention of Incident and Recurrent Major Depression in Older Adults With Insomnia

Assessor-blinded, single-site randomized clinical trial | 2022

291 adults aged >=60; CBT-I 156 versus sleep education 135

Read the living topic guide and detailed source limitations

Breathing, sleepiness, and sleep apnea

Improving wakefulness and proving dementia prevention are different achievements. A useful treatment need not prove every hoped-for benefit.

What the evidence says

In APPLES, active CPAP improved subjective and objective wakefulness compared with sham CPAP. The principal cognitive tests did not show sustained between-group benefits at six months.

Keep the limits in view

Adherence, dropout and trial duration affect interpretation. An inconclusive cognitive result is not proof of no possible cognitive benefit, and it is not a reason to stop prescribed treatment.

A useful question

Do my breathing symptoms or daytime difficulties call for sleep-apnea assessment?

Primary sources

Kushida et al. · The Apnea Positive Pressure Long-term Efficacy Study (APPLES)

Six-month randomized, double-blind, sham-controlled multicenter trial | 2012

1,105 randomized; 1,098 contributed to primary-outcome analysis

2016 erratum: dropout-analysis wording

Read the living topic guide and detailed source limitations

Sleep and muscle recovery

A small experiment found altered muscle protein synthesis after a night without sleep. It does not make one difficult night a catastrophe.

What the evidence says

Thirteen healthy young adults completed normal-sleep and total-sleep-deprivation conditions in a randomized crossover experiment. Post-meal muscle protein synthesis was lower after the sleepless condition.

Keep the limits in view

One extreme acute exposure, small sample and short measurement period. Not proof that ordinary variable nights cause measurable muscle loss; not a recovery prescription.

A useful question

What is limiting recovery in my actual schedule, training, health or treatment?

Primary sources

Lamon et al. · The effect of acute sleep deprivation on skeletal muscle protein synthesis and the hormonal environment

Randomized crossover experiment | 2021

13 healthy adults aged 18-35; seven men and six women

Read the living topic guide and detailed source limitations

Midlife, symptoms, and changing sleep

Sleep complaints changed across the menopausal transition in a diverse cohort. Different complaints followed different patterns.

What the evidence says

SWAN followed 3,045 women with baseline and seven annual assessments. Trouble falling or staying asleep was associated with transition stage, vasomotor symptoms and hormonal changes.

Keep the limits in view

Observational, self-reported sleep, no randomized treatment assignment. Associations among hormone users do not establish a treatment effect or justify a universal hormone regimen.

A useful question

Which symptoms, medicines and circumstances could be contributing, and what options fit my priorities?

Primary sources

Kravitz et al. · Sleep disturbance during the menopausal transition in a multi-ethnic community sample of women

Longitudinal observational SWAN analysis | 2008

3,045 women aged 42-52 at baseline; five racial/ethnic groups

Read the living topic guide and detailed source limitations

Sleep opportunity and energy balance

Making more room for sleep affected energy intake in one short adult trial. That is not a calorie target for readers.

What the evidence says

Eighty adults aged 21-40 with overweight and habitual short sleep were randomized to sleep-extension counseling or usual sleep. Over the two-week intervention, the counseling group slept longer and had lower objectively assessed energy intake.

Keep the limits in view

Brief, single-center study in selected adults. Not evidence of durable weight loss, a lifespan effect or a universal sleep-to-calorie conversion; not guidance for children or calorie restriction.

A useful question

Is my schedule allowing enough opportunity, and what barriers could we realistically address?

Primary sources

Tasali et al. · Effect of Sleep Extension on Objectively Assessed Energy Intake Among Adults With Overweight in Real-life Settings

Single-center randomized clinical trial | 2022

80 adults aged 21-40; habitual sleep <6.5 hours; two-week intervention after baseline

Read the living topic guide and detailed source limitations

Keep following the question.

The web collection can change as evidence and explanations improve. This PDF is a dated edition; a downloaded copy does not update itself. Use the links below for current reading.

Explore the living sleep collection

The sleep booklet and October 24 conversation

The GLP-1 and sleep reading companion

The original October 24 Substack sleep Note

The Arising on Substack

Source and update note

The two sleep-article primary abstracts were checked on October 25. The nine topic guides preserve the October 24 research review, correction links and unresolved limitations; they have not received a new full-text audit.

Clinical outcomes, associations, mechanisms and lifespan extension are distinct claims. Bring questions about symptoms or medication to your own clinician.