

A Patient Guide to Restorative Sleep

The biology of good sleep — and the habits that protect it

Sleep is not downtime. It is one of the most active, restorative processes your body and brain perform — clearing metabolic waste, consolidating memory, regulating mood, and repairing tissue. When sleep suffers, mental health almost always suffers with it. This guide explains what happens while you sleep, and the evidence-based habits that help you get more of the sleep that heals.

Your Night Moves in Cycles

You don't sleep at one constant depth. You move through repeating cycles of about **90 to 110 minutes**, four to five times a night. Each cycle passes through distinct stages. Deep sleep dominates the first half of the night; REM (dream) sleep dominates the second half — which is why cutting sleep short robs you disproportionately of REM.

Stage	Share of Night	What It Does
Awake / drifting	brief	Normal brief awakenings between cycles — most are never remembered.
N1 — Light (transition)	~5%	The doorway into sleep. Easily woken; muscles relax, breathing slows.
N2 — Light (stable)	~45–55%	The bulk of your night. 'Sleep spindles' here help consolidate memory and learning.
N3 — Deep (slow-wave)	~15–25%	The most physically restorative stage. Growth hormone release, tissue repair, immune support, and brain waste clearance.
REM — Dream sleep	~20–25%	Memory consolidation and emotional processing. The brain is highly active; the body is temporarily paralyzed.

Note: deep sleep naturally declines with age — roughly 2% per decade between ages 20 and 60 — which is one reason sleep can feel lighter as we get older.

Why Deep Sleep Cleans Your Brain

During deep sleep, your brain runs a kind of overnight rinse cycle called the **glymphatic system**. Cerebrospinal fluid washes through brain tissue and flushes out metabolic waste that builds up while you're awake — including the proteins associated with cognitive decline. Recent research (2024–2025) shows this clearance is driven by slow, rhythmic changes in blood flow during non-REM sleep. In plain terms: deep sleep is when your brain takes out the trash. Skimp on it night after night, and the debris accumulates.

What Controls When You Feel Sleepy

Two systems work together to govern sleep:

- **Sleep pressure (Process S).** From the moment you wake, a molecule called **adenosine** slowly builds in the brain, increasing the drive to sleep. Caffeine works by blocking adenosine — which is why a late-afternoon coffee can quietly sabotage your night.
- **Your internal clock (Process C).** A master clock in the brain (the suprachiasmatic nucleus) runs on roughly a 24-hour rhythm, set largely by **light**. Morning light advances and anchors it; evening light delays it and suppresses melatonin, the hormone that signals 'night.'

Good sleep happens when these two systems are aligned. Most sleep problems are, at root, a misalignment of one or both.

Sleep Hygiene: The Evidence-Based Habits

These are the highest-yield, research-supported practices. Start with the first three.

- **Fix your wake time** — the same time every day, including weekends. A consistent wake time is the single strongest anchor for your internal clock.
- **Get morning light** — 15–30 minutes of outdoor light within an hour of waking. This sets your clock and strengthens nighttime melatonin.
- **Dim the evening** — lower lights and stop screens (or use night mode) 30–60 minutes before bed. Bright evening light tells your brain it's still daytime.
- **Cut caffeine after early afternoon** — it lingers for 6+ hours and blocks the very signal that helps you fall asleep.
- **Be careful with alcohol** — it may help you fall asleep, but it fragments sleep and suppresses deep and REM stages, so you wake unrefreshed.
- **Keep the room cool, dark, and quiet** — a slightly cool room (around 65–68°F) supports the natural temperature drop that accompanies sleep.
- **Reserve the bed for sleep** — not work, scrolling, or worrying. If you can't sleep after ~20 minutes, get up, do something calm and dim, and return when sleepy.
- **Move your body daily** — regular exercise deepens sleep; just avoid vigorous workouts in the last 1–2 hours before bed.
- **Build a wind-down ritual** — a consistent, calming pre-sleep routine (reading, prayer, gentle stretching, a warm shower) cues your body that sleep is coming.

When to Talk to a Provider

If you practice these habits consistently and still sleep poorly for more than a few weeks — or if you snore loudly, gasp awake, or feel exhausted despite enough hours in bed — that's worth a conversation. Persistent insomnia, sleep apnea, and circadian disorders are treatable, and untreated sleep problems both worsen and mimic psychiatric conditions. Sleep is often where mental health treatment should begin, not end.

Respectfully,

Beth Makar, RN, Dual-MSN, PMHNP-BC

Integrative Mind Body Psychiatry · Telehealth across Utah and Idaho
integrativemindbodypsychiatry.com

Sources: Sleep architecture and stage percentages — StatPearls (NCBI Bookshelf), Physiology of Sleep Stages. Glymphatic clearance during sleep — Cell (2024), "Norepinephrine-mediated slow vasomotion drives glymphatic clearance during sleep." Two-process model of sleep regulation — npj Biological Timing and Sleep (2025). This guide is for educational purposes only and is not a substitute for personalized medical advice. If you are experiencing a mental health crisis, call or text 988.