



THE PREVELITY LIBRARY

VOL. 07 · SLEEP

Sleep, the Overlooked Pillar.

Sleep touches your heart, metabolism, brain, and mood every night. Why it matters, how it works, and how to fix it — including when the problem isn't habits at all.

FREE PREVIEW EDITION

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PRE-VELITY

INNOVATIVE PREVENTION, PERSONALIZED FOR LONGEVITY.

FOREWORD

The most underrated performance and longevity tool is free.

Many of the people I care for are exceptional at nearly everything — except sleep. They treat it as the flexible line item, the thing to cut when the calendar gets full.

The cost of that trade is higher than most people realize. Short or disrupted sleep raises blood pressure, worsens insulin resistance, increases appetite, weakens immune function, dulls judgment, and — over years — is associated with higher risk of heart disease, diabetes, and cognitive decline. Meanwhile, some of the most common sleep problems, like sleep apnea, go undiagnosed for years.

This guide explains why sleep matters, how it works, the habits that fix most problems, and the conditions habits can't fix — so you know when to get help.

WHAT THIS IS — AND ISN'T**Education, not a diagnosis.**

If you snore loudly, stop breathing or gasp during sleep, fall asleep while driving, or have persistent insomnia, see your physician. Drowsy driving is dangerous: if you're struggling to stay awake at the wheel, pull over.

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SECTION 01

01.

Why Sleep Matters.

Sleep isn't downtime. It's when the body repairs, the brain consolidates and clears, and metabolism resets. Shortchange it and nearly every system notices.

INSIDE THIS SECTION

What sleep does · What short sleep costs · How much is enough

WHAT SLEEP DOES

Active recovery, every night.

During deep sleep, heart rate and blood pressure fall, growth hormone is released, and tissue repair ramps up. The brain consolidates memories and clears metabolic waste through a cleaning system that is most active during sleep. REM sleep supports emotional processing and learning. None of this can be done later, and none of it can be replaced by caffeine.

FIGURE 01 • WHAT SHORT SLEEP COSTS

NEARLY EVERY SYSTEM NOTICES.

HEART**Higher blood pressure**

Consistently short sleep is associated with more hypertension, heart disease, and stroke.

METABOLISM**Insulin resistance**

Even a few nights of restricted sleep measurably reduce insulin sensitivity (Vol. 03).

APPETITE**More hunger, more cravings**

Sleep loss shifts appetite hormones toward hunger — and toward sugary, high-calorie food.

BRAIN**Attention and memory**

Judgment, reaction time, and learning decline — often before you notice.

MOOD**Anxiety and irritability**

Sleep and mood problems feed each other (Vol. 08).

IMMUNITY**Weaker defenses**

Short sleepers respond less well to vaccines and are more susceptible to infections.

Long-term, both consistently short sleep and very long sleep are associated with higher mortality — the latter often reflecting underlying illness.

HOW MUCH

Seven to nine hours, for most adults.

1 in 3

U.S. ADULTS

About a third of American adults regularly sleep less than the recommended seven hours. Very few people genuinely thrive on less than six — most who think they do are simply used to being impaired.

U.S. Centers for Disease Control and Prevention; American Academy of Sleep Medicine.

Quantity isn't the whole story. **Regularity** — going to bed and waking at consistent times — and **quality** — sleep that isn't fragmented by breathing problems, alcohol, or noise — matter too. Seven hours of broken sleep isn't seven hours of sleep.

You can't buy back tonight's sleep this weekend.
Your body keeps a running tab.

ON SLEEP DEBT

SECTION 02

02.

How Sleep Works.

Two forces decide when you fall asleep and wake up. Understanding them explains most sleep problems — and most of the fixes.

INSIDE THIS SECTION

Sleep pressure and the body clock · Stages and cycles · Sleep and age · Chronotypes

TWO FORCES

Sleep pressure and the body clock.

The first force is **sleep pressure**: a chemical called adenosine builds up the longer you're awake, making you progressively sleepier. Sleep clears it. Caffeine works by blocking adenosine's signal — hiding the pressure, not removing it.

The second is your **circadian rhythm**, a roughly 24-hour internal clock set mainly by light. It drives alertness during the day and releases melatonin in the evening to signal night. You sleep best when high sleep pressure lines up with your clock's night.

SLEEP PRESSURE

Builds with time awake

Long naps late in the day, or lying in bed for hours, reduce it — making it harder to sleep at night.

THE BODY CLOCK

Set by light

Morning light anchors it; bright evening light — including screens — pushes it later.

STAGES AND CYCLES

A night is a series of roughly 90-minute cycles.

FIGURE 02 • THE ARCHITECTURE OF A NIGHT

DEEP SLEEP EARLY, REM LATER.

LIGHT SLEEP

Stages 1–2

The transition in and between cycles; about half the night.



DEEP SLEEP

Stage 3

Physical repair and recovery. Concentrated in the first half of the night.



REM SLEEP

Dreaming

Memory, learning, emotion. Concentrated toward morning.

Cutting the end of the night short costs mostly REM; drinking alcohol in the evening suppresses REM and fragments the second half.

WITH AGE

Sleep changes as we get older.

Deep sleep decreases with age, sleep becomes lighter and more easily interrupted, and the body clock tends to shift earlier. Waking briefly during the night becomes more common. None of this means poor sleep is inevitable — but it makes the foundations in Section 03 more important, and it means new or worsening sleep problems deserve evaluation rather than acceptance.

CHRONOTYPES

Larks, owls, and everyone between.

People genuinely differ in their natural timing — partly genetic, partly age-related. You can shift your clock somewhat with light and routine, but fighting a strong chronotype every day has a cost. Where possible, protect your natural window and keep it consistent.

END OF THE FREE PREVIEW

The rest of this guide.

You know why sleep matters and how it works. The complete edition covers what to do about it: an hour-by-hour sleep-hygiene plan, how to tell a timing problem from trouble falling or staying asleep, every tracking option from diaries to lab studies, the conditions habits can't fix, medications matched to your problem type with the risks of each class, and a two-week reset.

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