

EVENING ROUTINE & SLEEP

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Habits - Evening Routine

Creating the perfect environment for high quality sleep and recovery. Optimise hormone production to help support your ability to physically and mentally transform.

The quality and quantity of your sleep directly impacts your body composition, your energy, your happiness and your health. To create the full spectrum program that delivers optimisation in every area you simply cannot ignore sleep.

We walk you through the perfect routine for you to ensure you are primed for positivity and gains.

How we do this?

We have a daily checklist for you to work through for a 7 day period covering several key areas.

Reducing Light exposure

We focus on this to regulate the circadian rhythm and support sleep quality and quantity. This supports metabolism, mood, recovery, hormone function and brain function.

Reducing Brain stimulation

We have little escape from mental stimulation in this day and age. But our emails, smart phones and tech impact our sleep quality and quantity. Learn why and how we can fix it.

Relaxation

Cortisol is a hormone released when we are in a state of stress. It's release impacts us a huge number of ways, including our ability to sleep and the quality of our sleep. We have tools to help support your stress and better improve your sleep.

Clearing mind

Our thoughts are incredibly powerful. They can drive us forwards or hold us back. How we deal with thoughts before bed can impact how we sleep and also how we feel when we wake.

Nutrient timing

Timing food to optimise sleep and help support your progress overall will help make this process more manageable and remove some issues brought on by poor sleep cycles and impacted circadian rhythm.

Supplements

Adding supplements can support your ability to fall asleep, the quality and also the duration of your sleep. Positive habits partnered with a select few supplements make a huge impact.



Reducing Light exposure

Light has dramatic effects on sleep, influencing circadian rhythm, melatonin production, and sleep cycles.

How Does Light Affect Circadian Rhythm?

Circadian rhythm is our 24-hour internal clock that coordinates a wide range of processes in the body, including sleep. It is controlled by a small part of the brain, known as the circadian pacemaker, that is influenced greatly by light exposure.

When light enters the eye, it is sensed by group of cells on the retina, it is then carried to the brain and interpreted as information about the time of day¹. The brain sends signals throughout the body² to control systems and organs in accordance with that time of day.

When we are exposed to only natural light, our circadian rhythm becomes closely synchronized with sunrise and sunset³, we stay awake during the day and sleep when it's dark. However, electricity creates a shift due to light sources that affect the brain's circadian pacemaker.

How it impacts us depends on the timing of light exposure. When light is perceived early in the morning, it pushes our sleep schedule earlier. Light exposure in the evening moves the sleep cycle backward toward a later time.

Too much exposure, or exposure at the wrong times can cause the circadian rhythm to be misaligned with the day-night schedule. This can throw their sleep out-of-whack and induce other concerning health impacts⁵ including worsened metabolism, weight gain, cardiovascular problems, and perhaps even an elevated cancer risk⁶.

Circadian effects vary based on the type of light and the duration of exposure. While prolonged light tends to be impactful, even short periods of artificial light can affect circadian rhythm⁴.

Circadian rhythms impacts mood and mental health. An example is seasonal affective disorder⁷ which is a type of depression that most commonly affects people who live in areas where winter months have very short periods of sunlight.

Melatonin, Light and Sleep.

Melatonin is a hormone made by the body, and its production is tied to light. In response to darkness, the pineal gland in the brain initiates production of melatonin⁸, but light exposure slows or stops that production.

Tiredness increases with rising melatonin levels, which is one way that this hormone helps with sleep. Also, daily cycles of melatonin production regulate circadian rhythm, supporting a stable sleep-wake schedule.

How Does Light Affect Sleep Cycles?

We have different stages of sleep. In a normal sleep period, we go through four to six sleep cycles⁹, each of which lasts from 70 to 120 minutes. The cycles are made up of many stages of sleep, including both rapid eye movement (REM) and non-REM sleep.

Light exposure at night can hinder transitions between sleep cycles, reducing the quality of sleep¹⁰. Too much light can cause repeated awakenings, interrupting the sleep cycle and reducing time spent in deeper, more restorative sleep stages.

Reducing Brain stimulation

How often do you check your phone or emails in the last hour, or over the last 24 hours? The average Brit checks their screen every 12 minutes, according to the latest research.

Our brains contain pathways that transmit a feel-good chemical called dopamine when you're in rewarding situations. Social interaction stimulates the release of dopamine, for many people.

Our phones are now used as tools of social interaction, we therefore have become accustomed to constantly checking them for that hit of dopamine. The same process for social interaction when we connect with others on social media or some other app.

Tech companies are counting on that drive to keep you checking your phone. We all know the social reinforcement tools very well, such as "likes" and "comments," and even emails and notifications. To make things worse we receive them in an unpredictable pattern. We check our phones a lot more often when we can't predict the patterns.

That cycle can lead to point where you don't enjoy using your tech, but you are actually driven to do so.

What does this mean for my sleep?

When dopamine interacts with its receptors, it inhibits the effects of norepinephrine—which means a decrease in the production and release of melatonin.

Interestingly, the researchers found that these dopamine receptors only appear in the pineal gland towards the end of the night, as the dark period closes. Therefore, the researchers conclude, the formation of these heteromers is an effective mechanism to stop melatonin production when the day begins and to 'wake up' the brain.

Results demonstrate a mechanism in which dopamine, normally increased at times of stimulation, can directly inhibit production and release of a molecule, melatonin, that induces drowsiness and prepares the body for sleep

Relaxation & Reducing Cortisol

Cortisol is a hormone. It's produced by a network known as the hypothalamic pituitary adrenal (HPA) axis.

Cortisol is best known for its role in the stress response. Under stressful circumstances, the HPA axis spurs the release of cortisol.

Cells all over your body are studded with cortisol receptors, so this hormone can trigger lots of nearly instant threat responses. These include:

rapid breathing

sharpened senses

rapid heart rate

spike in blood sugar

Cortisol tiggers your sympathetic nervous system for fight or flight. This is where we are prepped to fight, to freeze, or run for your life.



What does cortisol have to do with sleep?

Sleep and the stress response share the same pathway: the HPA axis. When something disrupts the HPA axis functions, it can disrupt your sleep cycles as well.

Circadian rhythm and cortisol

The production of cortisol in your body follows a similar pattern to the circadian rhythm.

Cortisol production generally drops to its lowest point around midnight. It peaks about an hour after you wake up.

In addition to these around 15 to 18 smaller pulses of cortisol are released throughout the day and night. Some of those smaller bursts of cortisol correspond to shifts in your sleep cycles.

Cortisol and sleep cycles

Your body goes through various stages of sleep each night, it isn't just one stage.

Non-REM (non-rapid eye movement) sleep has 3 stages.

Stage 1. This stage lasts a few minutes as you drift from being awake to being asleep.

Stage 2. Your body's systems relax further, your core temperature drops, and your brain waves are slower. You spend about 50 percent of your sleep cycle in this phase.

Stage 3. This phase is also known as "slow wave sleep." It's when your heart rate, breathing, and brainwaves are slowest.

REM (rapid eye movement) sleep is the part of your sleep cycle when you have vivid dreams.

A sleep cycle lasts about 90 minutes, and during that time you move through these four stages of sleep.

Most of your deeper slow wave sleep happens in the first half of the night, while REM sleep happens more during the second half of the night.

Researchers have found that when the HPA axis is overly active, it can disrupt your sleep cycles, causing:

fragmented sleep

insomnia

shortened overall sleep time

Those sleep disturbances can wreak further havoc on your HPA axis, distorting your body's production of cortisol

Insomnia and other forms of sleep deprivation cause your body to secrete more cortisol during the day, perhaps in an effort to stimulate alertness.

Clearing mind & removing negative thoughts.

Write down anything you need to remember. When you write down your to-dos or reminders, you give your brain permission to stop thinking about them since now they're somewhere and won't be forgotten.

Practicing gratitude helps you feel more optimistic and reduces stress and anxiety. Taking a few minutes to write down what you're grateful for before going to bed focuses your brain on positive thoughts and makes it harder for it to get stuck on the negatives.

Nutrient timing

Meal timing is a hotly debated subject and for good reason. Some studies show eating late can result in higher calorie consumption overall and others discuss less fat loss even on the same calories

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4794259/>

Whilst we all know our total calorie intake vs expenditure is the main point when it comes to fat loss there may be more to eating late than meets the eye.

We encourage clients not to eat for 2 hours before bed for a number of reasons.

For lower blood glucose levels during sleep, for better quality of sleep due to the impact eating has on the circadian rhythm and due to effects on falling asleep.

When we are digesting a meal our body temperature increases. When we are relaxing to fall asleep we need our temperature to reduce. You can see why eating too close to sleep time can cause issues.

Supplements

Using supplements we can support sleep with improving the ability to drift off and also increasing the quality of sleep. Here is a sample of three we use, there are more but this acts a fantastic base.

Glycine

This amino acid can have a big impact on your sleep. It may raise the amount of serotonin, a brain chemical that affects slumber. It also helps your blood flow and drops your body temperature, both of which encourage you to nod off. Glycine supplements are viewed as safe. Try taking 3 grams about an hour before bedtime.

Magnesium

Low levels of this mineral may make it harder for you to fall or stay asleep. Studies show that magnesium supplements may improve slumber in older people and those with restless legs syndrome. Get enough with foods like nuts and leafy greens. Women need 310-320 milligrams per day, while men need 400-420 milligrams. Ask your doctor if you should take a supplement: Too much magnesium can lead to cramps and nausea.

5-HTP

It's short for 5-hydroxytryptophan, a compound that your body makes from foods. Your body uses 5-HTP to make melatonin, an important hormone for sleep. Some studies suggest, but don't prove, that 5-HTP supplements made from plant seeds may help you log more sleep. Experts recommend 100-300 milligrams of 5-HTP before bedtime. Side effects include nausea and headaches.



What we track.

How we measure this

Score 1-5 each section (sleep in hours)

Weekly total = score

Amount of sleep in hours

Quality of sleep



Mood



Energy



Screen time



Dark room



Journal



Gratitude



Supplements



Breathing drill + Viparita Karani



Caffeine



Alcohol



Meal timing



SCORE TOTAL