Improve your sleep quality with these positive lifestyle changes

A GUIDE ON HOW YOU CAN IMPROVE YOUR SLEEP

SLEEP HYGIENE

AND HOW SLEEP CAN IMPROVE YOUR MENTAL AND PHYSICAL HEALTH

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Introduction

SLEEP

Ever since I can remember I have always had trouble sleeping. I remember being really young and my mum having to drive me around the block in her little black mini just to get me off to sleep to then try and sneak me back up to bed.

Well, it didn't stop there. Over the years my relationship with sleep only got worse and like most people I started taking Nytols or anything that would help knock me out. Even then, I would still only fall asleep in the wee hours of the morning on the couch with my bulldog.

And then smartphones and Netflix happened. By this stage
I had fallen into the bad side of being a rough sleeper.
I was stuck in a tediously mundane routine of binge watching a series or scrolling through other people's lives on my phone, trying to avoid the same restless evening routine I had inadvertently created for myself.

I realised I was missing out on half my days because I was having to sleep in, I wasn't able to function at my full capacity and tried to trick my body with substances to either wake up or fall asleep. I was caught in a limbo of drowsiness. It was then when I thought, enough was enough. There was no straw that broke the camel's back as such, I just started reading up on sleep and the effects it has on the human body. That was two years ago, and since then my passion for improving my relationship with sleep and improving my general wellbeing has evolved.

I have gone from being a very light sleeper, with bad sleep hygiene to someone who wakes up refreshed after getting 7-8 hours of deep sleep (and no this isn't an add for a magic pill). This is a guide I have created from years of research and my own personal experiences and I wish to share my tips and tricks on how you can biohack your way to a better quality of life, starting with a good kip!

In this guide you will find an explanation as to why you might always feel tired and restless, and then I will teach you the habits and practices that are conducive to sleeping well on a regular basis.

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WHY IS IT SO IMPORTANT?

There is plenty of evidence that sleep is important. We can all recognize it's value in our personal lives. Sleep is an anabolic state during which the body replenishes its energy storages, regenerates tissues and produces proteins. Without enough sleep, the human body cannot function properly.

So let's get sleep into perspective here, a sufficient and good sleep at night contributes to better performance, awareness, mood, ability to handle stress, skin quality, sports performance, the capacity to learn new things, and the ability to maintain general wellbeing. I aim to improve your sleep quality with these positive lifestyle changes. I cannot stress enough how important sleep is for recovery and results. We spend about a $\frac{1}{3}$ of our lives sleeping so having a good sleep pattern is a significant contributor to having a better quality of living.

If you know of somebody who will find this guide helpful then please feel free to share.



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CIRCADIAN RHYTHM

First things first, your circadian rhythm is basically a 24 hour internal clock that is running in the background of your brain and cycles between sleepiness and alertness at regular intervals. It's a biological process linked to the cycles of the day.

Many bodily functions vary according to these rhythms, including the following:

- Body temperature
- Pulse rate and blood pressure
- Reaction time and performance
- The production of melatonin, serotonin and cortisol
- Intestinal activity



Travellers who make frequent long-distance flights often have direct experience in the importance of getting acclimated to a new time zone. One's inability to adjust can lead to sleeping problems and disturbances in cognitive functions. People who do shift work, or work under bright lights, can face similar issues. Problems arise whenever the daily rhythm is disturbed.

Light directly affects the production of melatonin, the so-called "hormone of darkness", which is secreted mostly by the pineal gland during the hours of darkness. Melatonin plays a crucial role in the regulation of the sleep—wake cycle.

In order to optimize sleep, it is important to understand how other hormones influence circadian rhythms. High levels of dopamine and serotonin have been linked to the feeling of alertness, and adversely low levels to sleepiness. Cortisol, known as "the stress hormone," contributes to sudden wakefulness in the middle of the night. Its production is especially active for the first 30 minutes or so after waking up.

A part of your hypothalamus (a portion of your brain) controls your circadian rhythm. However, a multitude of outside factors will impact it. Your circadian rhythm will coincide with the cycle of daytime to nighttime, the impact of light on our eyes sends a signal to your body to release melatonin which will make you more relaxed and tired. With the modern, stressful and digital lifestyle we live there are so many factors that can disrupt the natural rhythm designed for our bodies.

So what can we do to help get our bodies back to their natural rhythm?

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CREATING THE PERFECT SLEEP ENVIRONMENT

Environment

Your bedroom should be your safe haven. We should only try to associate sleep (and sex) with the bedroom and avoid anything that will cause stress or disrupt our sleep. Setting up your own functional sleep environment is vital, you are looking for an uncluttered, temperature controlled bedroom with good air quality and not too much blue spectrum light (tv, phones). It might sound a little obvious but dirty sheets and a cluttered room will create unnecessary stress. Control your temperature, make sure it's not too warm but nice and cool. Block out any unwanted light or sounds from your new safe haven, and if you can I recommend investing in a memory foam mattress and pillow which has a multitude of health benefits.

Temperature

The temperature of the body naturally drops during sleep however the optimal temperature for most people is around 10-20 degrees. Sleeping in a room that is too hot or too cold makes it difficult to maintain optimal thermoregulation. Instead try:

- · Adjusting radiators or setting your thermostat.
- Keeping windows open and ventilating the space properly.
- Shower before bed, which will make your body have to regulate giving a drop in temperature that should make it easy to relax.

Bluelight

Sunlight, moonlight and LEDs on electronics can disturb sleep. Increasing red spectrum light and decreasing blue spectrum light kick starts the production of melatonin (the sleep hormone). You can use blackout curtains (especially if you are a shift worker), you can darken the LED lights you use and apply a filter to avoid stimulation from blue light.

If you must use a computer or smartphone in the evening you can filter out blue spectrum light by adjusting your lighting settings or you can apply a filter (a layer of film on top of your screen) if you do not have that option. Personally, I have found that by wearing special amber blue light blocking glasses has been the easiest and most efficient way to avoid blue light. Try to avoid your phone or television for an hour before you go to bed no matter what.

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Sleep accessories

To fully optimise your new sleep environment I would suggest introducing these following sleep accessories which all have an important individual role in assuring you get a good quality sleep each and every night.

ACCESSORY		FUNCTION
Blue light blocking glasses	00	Avoid blue light emitted from the computer, mobile phone or television by wearing amber blue light blocking glasses from the moment it gets dark in the evening. Increasing red spectrum light and decreasing blue spectrum light kickstarts the production of melatonin.
Black out blinds	■	Blackout blinds are designed to cut out any light that may enter the room from outside, it must be an opaque fabric which will allow you to have an undisturbed sleep.
White noise machine	◄1)	White noise is a special type of sound signal which is used to mask background sounds. When used to promote healthy sleep, white noise helps to drown out external sounds.
Himalayan pink salt lamp		Dim salt lamps will allow you to have light that does not emit blue spectrum light. In addition, they have countless benefits from the negative salt ions released that can boost blood flow, improve sleep and increase serotonin in the brain.
Ear plugs		Silicone ear plugs are ideal as they are easily moulded to fit comfortably in the ear and used to block out any external sounds (like your partner snoring).
Eye mask	z ^{zz} z	You can use any eye mask as long as it fits comfortably and is able to block out any external light that can enter the room.
Nose opener		A very important tool used to open our airways allowing correct oxygen flow to the brain, especially important for people who may snore or suffer with sleep apnea.
Mouth tape		Using mouth tape forces you to breathe out of your nose (instead of your mouth) increasing nitric oxide which has a multitude of benefits on your health and sleep quality.
Air filtration plant		The use of house plants can increase humidity, turn carbon dioxide into oxygen, and release negative ions into the air. For example, golden cane palm, snake plant and devil's ivy.

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BEDTIME ROUTINE

Create a relaxing bedtime routine, spend more time relaxing before bed and try to avoid stressful conversations about work, or watching 'stressful' things on your phone or tv (especially social media). Rather, you can use this time to read, have a bath, meditate and stretch which can help reduce cortisol (the stress hormone) and raise melatonin (the sleep hormone).

Try to maintain a consistent sleep pattern 7 days a week, go to bed and get up at the same time every day. You must try to get between 7 to 9 hours of sleep every night.

Sleeping problems have increased in conjunction with sitting and the increased usage of electronic devices. According to a 2011 study by National Sleep Foundation, 63 % of Americans say they do not sleep enough during the week. About 15 % of adults between 19 and 64 say they sleep less than six hours on weeknights. 95 % use some type of electronics like a television, computer, video game or cell phone at least a few nights a week within the hour before bed.

After a long work day or with a large workload ahead, it is especially easy to get stuck with incessant thoughts which stimulate brain activity and prevent falling asleep. Try:

- · Using meditation to empty your mind
- · Stop working an hour before going to bed
- Write down a to-do list for work tomorrow, so that unfinished business does not get stuck in your head
- Write in a gratitude journal before going to bed (e.g. three things that happened during the day that you feel grateful for)
- Write down positive affirmations (to program your mind for the next day)

Ok so you're finally in bed, now what?

Try sleeping without clothes so that the rubber bands on the waist cannot block your lymphatic system. Use a memory foam pillow that supports the neck and try having a pillow between your legs (when sleeping on your side).

Sleeping on your back or right side as other positions put stress on your internal organs. Sleeping on your stomach is not recommended to anybody except to those suffering from spinal disc herniation.

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PREPARATION DURING THE DAY

A good night's sleep really starts from the moment you wake up. Make sure you are doing these following three things during the day to set yourself up for success later on.

- 1. Daylight Make sure you are getting enough daylight in during the day, I understand this might be difficult for people living in 'darker' countries however you can use a lumie light or light therapy box to level your circadian rhythm.
- 2. **Avoid stimulants** Try to avoid excess caffeine, your last coffee or tea should be had 6 hours before your bedtime- anything after that should be substituted with a decaf and sugar free option, this includes all soft drinks and alcohol. (Alcohol might feel like it helps get you off to sleep but it actually prevents you from going into deep R.E.M).
- 3. Exercise Lastly but not least, exercise! It is vital to keep active, get your steps in daily and exercise regularly. Try to avoid intense exercise 1 hour before bed if you can, exercise stimulates the body to secrete the stress hormone cortisol, which will send the brain into alertness.

 Good sleep hygiene will promote better recovery and results with your training and long term goals.
- **4. Reduce stress -** Refer to my stress document if you have received one of my online coaching plans.



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NUTRITION

Feeding your body with the right nutrients daily will not only help your quality of life but also the quality of your sleep. There are countless studies shown that a healthy whole-food diet will improve the way that your body functions and recovers. Try to avoid overly processed, high in sugar or omega 6 rich foods before bed (and throughout the day) as it keeps our brain awake while we sleep. Your gut health and microbiome will thank you for feeding it nutrient dense food which will create a more stable balance of your gut-brain axis.

The gut-brain axis refers to the neurological and biochemical connection between the enteric nervous system of the intestine and the central nervous system. The intestinal microbiome (bacterial strain) is known to affect the function of the immune system, the nervous system, behavior, stress tolerance, mood and issues such as anxiety and depression. In the past two decades in particular there has been a growing understanding of the significance of the intestine for the well-being of the brain.

Blood Sugar

Take care of your blood sugar levels. If blood sugar levels drop during the night, it releases glucose-regulating hormones such as adrenaline, glucagon, cortisol and growth hormone. This process can wake you up. Try to eat no later than two hours before going to bed and consume slowly digestible foods (such as meat) no later than four hours before bedtime. This allows the food to be digested in your system.

7 Nutritional Rules To Live By:

- 1. Eat well for tomorrow, not just for today
- 2. Improve your health even when you are healthy
- **3.** Quality over quantity
- **4.** Increase the nutritional density of your food
- **5.** Reduce toxins
- **6.** Maintain a healthy balance of various ingredients
- 7. Don't eat terms. "Low fat" or "sugar-free" does not necessarily mean a healthier option

"Tell me what you eat, and I will tell you what you are."

- French gastronome Jean Anthelme Brillat-Savarin (1755–1826)

Additional supplementation

SUPPLEMENTS

These are natural supplements that have been proven to aid in getting a more restful sleep. They are not a quick fix and please always consult with a GP or neuropath beforehand. Everybody is different and your body will react differently to supplements and doses so it is important for you to get the correct quidance before taking any of these suggested supplements.

Magnesium

You can take Magnesium as a supplement which helps promote muscle recovery, calms nerves, increases energy, regulates nutrients and improves bone health. Magnesium citrate capsules act as a mild sedative that helps the body to fall asleep. It also increases the amount of deep sleep and decreases nocturnal cortisol levels. An appropriate dosage is 400 mg.

You can also have a magnesium epsom bath salt around 3 - 4 times a week, low magnesium is linked to anxiety and stress - your skin is the biggest absorber around. Sit and stay submerged for no less than 30 mins.

L-Tryptophan

Tryptophan acts as a precursor to serotonin and melatonin. 500–1000 mg L-tryptophan is recommended, 1–2 times daily, preferably at night time. It is best absorbed when ingested together with carbohydrates.

Theanine

Theanine increases alpha waves and can be helpful for falling asleep.L-theanine promotes relaxation and facilitates sleep by contributing to a number of changes in the brain: Boosts levels of GABA and other calming brain chemicals. 100 mg to 400 mg is recommended for sleep and stress.

Zinc

Research has shown that magnesium helps play a key role sleep regulation and the more sleep you are able to get the more testosterone the body can produce. So because our bodies make more testosterone when they are asleep, it can pay to take a zinc and magnesium supplement like ZMA before bed. Recommended daily dosage is typically 15–30 mg.

Taurine

Taurine decreases stress and anxiety, and increases the amount of the anxiety-inhibiting neurotransmitter GABA in the body. An appropriate dosage is: -500-1500 mg of taurine every night, 1 hour before bedtime

Vitamin D

Take vitamin D in the morning or during the day. Do not take it in the evening, since vitamin D interacts with melatonin production. I believe that everybody in the UK should be taking this supplement, we do not get nearly enough natural vitamin D that our body requires. It is proven to boost mood as well as helping the body absorb calcium (8,000 IU a day) is recommended.

Ashwaganda

Lemon balm & Lavender oils

Lemon balm and lavender oils can be lightly sprinkled over your pillow which can have calming and soothing aromatherapy properties that can help reduce stress and improve quality of sleep.

Step by step

CHECKLIST

So now we are at the end of your introduction to sleep hygiene and its benefits let's make sure you can consistently keep up your new healthy habits with a daily checklist:

Get enough daylight and exercise during the day time.
Avoid stimulants like caffeine, alcohol, processed sugars, blue light before bed.
Eat nutrient dense food and take your supplements consistently.
Read, stretch, meditate or have a bath or shower before bed and spend time to relax.
Wear any accessories that will help you get a better quality sleep
Create a good environment, clean and controlled temperature.
Block out external light and sound in the bedroom, eye-mask and earplugs.
Get to bed and wake up around the same time each day, and try to get 7 - 9 hours of sleep.

I encourage you to create your own daily checklist, adapt it to your own schedule and needs but don't neglect any of the important steps we have gone through!

I hope you have found this guide helpful. Don't forget to share and tag me @ryanevanspt on instagram or if you know someone else who will find this guide helpful please feel free to pass this guide along.

All the best and happy dreaming,

Ryan.