



Meet
Jake Jensen

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A Breath of Relief: Jake's Journey with Sleep Apnea and CPAP Therapy

Jake has worked at Magna for six years as a hydraulic engineer at Bowling Green Metalforming in Kentucky, USA. Aware of his family's sleep apnea history, his mother urged him to see a doctor. "Being in my mid-to-late thirties, I was not going to the doctor as often as I should have," Jake admitted.

In the winter of 2022, Jake started to feel tired all the time. He would fall asleep reading bedtime stories to his three kids and lacked the energy to play with them. Jake often woke up feeling restless and relied heavily on energy drinks to get through a workday.

“ Jake did not realize the severity of the situation until a “wake-up call” the following summer when he fell asleep cutting the lawn and collided with a neighbour's mailbox, wrecking his trailer.

“This was the last straw,” Jake said, realizing he must have fallen asleep.

Shortly after the accident, Jake visited the doctor, shared his symptoms, and was referred for an at-home sleep study.

“ The results were alarming; he had experienced 105 breathing interruptions per-hour during sleep, and his blood oxygen levels were below a safe range.

Jake was diagnosed with obstructive sleep apnea and purchased a CPAP machine.

Jake cautioned that adjustment to sleep with a CPAP machine can be challenging. He emphasized advocating for yourself and contacting your primary care provider as often as necessary to ensure your CPAP machine works for you. Jake struggled to find the right mask and developed a sore on his upper lip from it not fitting properly. “It is annoying at the moment (making changes to your machine), but long-term it is worth it for your health and comfort,” Jake advised.

The diagnosis was initially a blow to Jake's pride. “Breathing is a basic life function, and I could not even breathe properly,” he reflected. However, the benefits of a CPAP machine soon outweighed the costs. Within days of using it, Jake felt better.

“ He had the energy to attend exercise classes, spend quality time with his family, and contribute to his community and church.

Since being diagnosed, Jake has not only reduced his cholesterol and blood pressure, but has also lost 40 pounds. His wife has also experienced the benefits! “My wife says I am a much quieter sleeper now,” Jake shared, noting that the CPAP machine makes little noise compared to his previous snoring.

“ “Why did I wait so long?” he wondered...

Restless Nights: Different Types of Sleep Disorders

Struggling with sleep? You are not alone. Sleep disorders like insomnia, sleep apnea, restless leg syndrome, and narcolepsy can make restful nights feel impossible.

Common types include:

- **Insomnia** (difficulty falling or staying asleep)
- **Restless Leg Syndrome** (uncontrollable leg movements while asleep)
- **Obstructive Sleep Apnea** (breathing interruptions during sleep)
- **Narcolepsy** (excessive daytime sleepiness)

These disorders usually occur at night but can also impact your daytime activities. If you are having trouble sleeping, talk to a primary healthcare provider. They can help you identify the cause and offer solutions, from lifestyle changes to treatments, to help you get the rest you need.



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Mastering Your Body's Clock: How the Circadian Rhythm Works

Let us take you on a journey through your body, led by a tiny yet powerful conductor orchestrating a symphony that keeps you alive and thriving.

Meet the circadian rhythm

The circadian rhythm is your body's internal clock, ticking away on a 24-hour cycle. It is why you feel sleepy at night, alert in the morning, and everything in between. Like the conductor of a grand orchestra, this rhythm synchronizes important bodily systems, hormones, digestion, and even body temperature, ensuring they all play in harmony.

While your brain keeps time, it is highly attuned to the world around you, adjusting hormone levels and reading neurological signals to keep you in check.



Let us set the scene:



Morning sunlight slips through your window and hits your eyes.

The light focuses on the retina at the back of the eye, which converts into a signal.

This signal races down your nerve, landing in a part of the brain called the hypothalamus.

As the signal arrives in the brain, it shouts, "Stop producing melatonin (the sleep-inducing hormone) — it is time to wake up!"

At the same time, your brain starts producing cortisol, the hormone that supports wakefulness and boosts alertness.

Even on cloudy days, stepping outside exposes your eyes to light far brighter than indoor bulbs, signalling your body to gear up for activity.

The opposite process will happen when it is time for bed.

As light levels gradually decrease at night, the brain increases melatonin production. This is why bright screens at night (TV, cell phone, etc.) can confuse these signals, making it harder to fall asleep.

This delicate dance of light and hormones is one way your circadian rhythm adapts to the environment around you.

Here is where the process gets fascinating:

Your circadian system does not just force you into a rigid schedule — it is smarter than that. It observes patterns, learns from them, and adjusts.

For example, as a shift worker, if you typically go to bed at 8 AM, two hours beforehand, your body releases melatonin. This hormone triggers sleep, gently nudging you to bed even though the sun is rising outside.

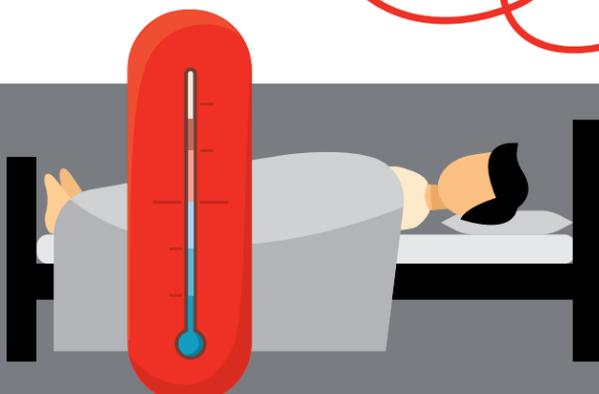
Can you train it to work on your schedule?

To some extent, yes. But everyone's body is unique. While early birds wake up to a natural cortisol surge, night owls may experience their surge half an hour after crawling out of bed. These hormonal quirks make your experience of circadian rhythm entirely your own.

Even though visually impaired individuals cannot perceive light, their circadian rhythms can still be regulated through various mechanisms. These include the body's photo-receptors, natural melatonin production, and social cues, such as regular meal times and temperature change.



Did You Know?



The ideal sleeping temperature is between 16°C and 18°C (60-65°F). A room hotter than 21°C (70°F) increases body temperature and disrupts restorative REM sleep.

A Deeper Connection: Poor Sleep and Your Mental Health

Reflect on a time when you had a restless night or very little sleep. Did you wake up with a headache, muscle pain, or fatigue? Did you feel irritable, stressed, anxious, or moody for the remainder of the day?

Sleep is essential for our physical and mental health. It helps to balance our emotions and keep stress in check. When we miss out on quality rest, it can lead to challenges like mood swings and difficulty concentrating, making everyday tasks feel more overwhelming.

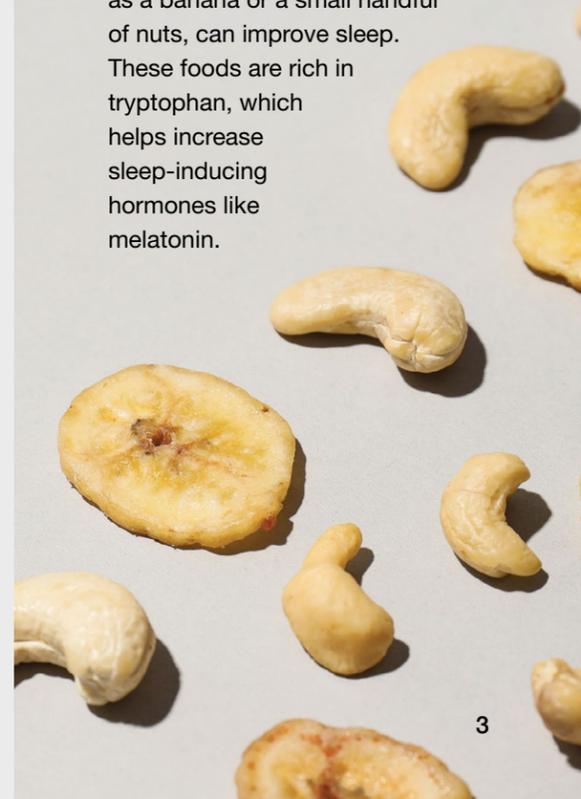
But here is the good news! You can turn this around by prioritizing quality sleep. Quality sleep means uninterrupted rest that does not leave you feeling sleepy or tired. Better sleep habits can make a real difference, and it is all about discovering what works best for you.

Check out 'Power Up: Quick Tips to Boost Your Daytime Energy' on the next page for practical tips on improving sleep quality and daytime energy.

Remember, prioritizing good sleep is essential for nurturing your mental health. If sleeplessness impacts your daily life, do not hesitate to seek support from your primary healthcare provider.

Did You Know?

A light snack before bed, such as a banana or a small handful of nuts, can improve sleep. These foods are rich in tryptophan, which helps increase sleep-inducing hormones like melatonin.



BEHIND CLOSED EYES:

What Really Happens in Our Brains When We Sleep

Your eyelids grow heavy as you settle into bed, and the outside world fades into darkness. This may feel like your brain is winding down, but it is just the beginning. Beneath the surface, your brain is gearing up for restoration and repair.

During sleep, the brain goes through a series of stages known as a sleep cycle. When we first fall asleep, we enter the non-rapid eye movement (non-REM) sleep stage, which consists of...

Three Distinct Phases:

STAGE 1 Falling Asleep

Although we are asleep, our body acts as if it is still awake, with our breathing and bodily movements remaining steady. This stage typically lasts 1 to 5 minutes and accounts for about **5% of our sleep**.

STAGE 2 Light Sleep

In this stage, we are lightly asleep but deeper than in stage 1. Our brain activity slows down, allowing us to organize our memories and information gathered from the previous day. We spend approximately **45% of our total sleep** in this stage.

Common sleeping conditions associated with stages 1 and 2 include sleep twitches and teeth grinding.

STAGE 3 Deep Sleep

This is the deepest stage of non-REM sleep. Our body repairs and regenerates cells during this stage, strengthening the immune system. We spend about **25% of our sleep time** in this stage.

Common sleeping conditions associated with stage 3 include night terrors, sleepwalking, and sleep-related eating disorders.

REM Sleep

As we finish the non-REM cycle, we transition into rapid eye movement (REM) sleep, the deepest and most important stage of sleep.

During this stage, our eyes move rapidly beneath closed eyelids, our heart rate increases, and our breathing becomes irregular. REM sleep accounts for about **25% of our total sleep**. It is crucial for dreaming, dealing with emotions, and supporting brain development. Sleep conditions like nightmares and hallucinations can happen during REM sleep.

The entire cycle takes about **90 minutes** to complete and repeats itself 4 to 5 times throughout the night. With each cycle, we tend to spend less time in non-REM stage 3 and REM sleep.

So, the next time you drift off to sleep, remember all the remarkable things your body does while you rest!

POWER UP:

Quick Tips to Boost Your Daytime Energy

What little rituals do you have to shake off fatigue?

Do you find yourself reaching for a steaming cup of coffee or jumping into a refreshing shower? Or perhaps you treat yourself to a leisurely breakfast like a yogurt parfait or even give breakfast a pass altogether?

If you often feel like the day drags on without that spark, do not worry—you are not alone! Let us explore some uplifting and simple tips to elevate your energy levels so you can dive into all the activities you cherish.

Start by choosing three of these tips to boost your energy:



Daily Movement

20 minutes of daily exercise can uplift your energy levels.



Short Naps

Keep naps to 15-20 minutes to stay refreshed without grogginess.



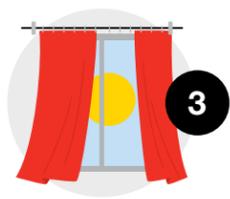
Consistent Wake-Up Time

Sticking to a regular wake-up time helps your body produce alertness-enhancing hormones.



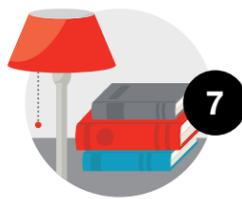
Mind Your Caffeine

Limit caffeine 8-12 hours before bedtime to avoid energy crashes.



Morning Light Exposure

Spend 5-10 minutes in natural sunlight or artificial bright light to signal your brain to wake up. A simulation light therapy device may be a helpful solution for shift workers.



Get Up if You Cannot Sleep

If you cannot fall asleep after 20 minutes, try getting out of bed to read, stretch, or meditate and avoid using your phone. Return to bed when drowsy.



Balanced Meals

Eat meals rich in vegetables, proteins, and healthy fats to maintain energy.



Stress Management

Use techniques like deep breathing or stretching to channel positive energy.

Sleep-Boosting

Banana & Oat Smoothie

Ingredients

1 ripe banana

1½ cups cup rolled oats

1 tbsp almond butter (use sunflower butter as a nut-free alternative)

½ tsp turmeric powder

¼ tsp cinnamon

½ cup unsweetened almond milk (or any milk of your choice)

1 tsp honey or maple syrup

Ice cubes (optional for a chilled smoothie)

Instructions

1. Blend the ingredients: Combine the banana, oats, almond butter, turmeric powder, cinnamon, and almond milk in a blender. If desired, use frozen banana slices for a creamier texture.
2. Pour the smoothie into a glass and enjoy!

Nutritional Facts

318 kcal calories

9 g protein

13 g fat

1 g saturated fat

55 g carbohydrates

8 g fibre

14 g sugars

2 mg sodium

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