THE SLEEP ROBBERS

5 WAYS INSOMNIA STEALS YOUR HEALTH & FITNESS

Protect Your Sleep. Reclaim Your Energy.



JOHANN CALLAGHAN

For more: information and events: https://linktr.ee/johanncallaghan_sleepcoach

THE SLEEP SUCCESS COACH

Table of Contents

Chapter 1 – A Sneaky Thief In Your Bed! 2
Chapter 2 - How Insomnia Slows Weight Loss And Muscle Growth 5
Chapter 3 - At Risk for Diabetes 7
Chapter 4 - Can Chronic Insomnia Lead to Obesity? 8
Chapter 5 - Can Insomnia Put You At Risk For Heart Failure? 12
Chapter 6 - How Insomnia Can Create a Compromised Immune System .. 14
Conclusion 17

Welcome!

I'm so glad you downloaded *5WaysInsomniaStealsyour Health and Fitness*. By downloading this e-book, you have taken the first step to your Sleep Success.



About Johann

Johann Callaghan is an International Bestselling Author, Global Speaker, Sleep Expert, Award Winner, Certified Health Coach and Founder of the S.L.E.E.P. Success System™, a scientifically backed framework.

Most leaders chase performance, yet overlook the source of it: energy. Johann helps leaders and decision-makers go from operating in survival mode, drained, distracted, and underperforming to becoming optimally energised, focused, and high-performing… by turning sleep into their greatest strategic asset, using the S.L.E.E.P. Success System™.

Featured globally on TV, radio, and hundreds of podcasts, and host of the *Empowering Family Health Podcast*. Johann has shared the Los Angeles Tribune stage with Dan Kennedy, Complimentary Medical Association (CMA) stage with Dr Frank Sabatino and Jayney Goddard, other stages with Andy Harrinton, Leslie Fieger, Tracey Repchuk, Eric Zuley, Stacey Hall, and co-hosted on world leading televised global summits with Deb Drummond, founder of Mission Accepted Media.

She has numerous nominations including The Rising Constellation Ezway TV Award, and recently received an award in Excellence sponsored by the TD Bank of Toronto, Canada.

A Proud member of The CMA, Professional Member with Professional Speaking Association Ireland (PSA) and active member of the 262 Women's Project (Mission Accepted), one of the most influential global platforms for authorship and speakership with appearances at the prestigious Emmy's and Oscars gifting suite in Los Angeles, USA.

With over a decade in study, teaching, and coaching, she delivers courses, workshops, and keynotes worldwide.

Johann enjoys forest walks, travel, family time, and a proud grandmother. She believes SLEEP is Your Greatest Asset!

- HealthBandit -
Five Ways InsomniaSteals Your Health and Fitness

Presented by
JohannCallaghan

DISCLAIMER

The following content is for informational purposes only. It is intended to provide information that may help you manage your wellbeing. It is not intended to diagnose, treat, or cure your condition or to be a substitute for advice from your physician or other healthcare professional. If you any concerns about your health, please talk with a healthcare provider.

Chapter 1 – A Sneaky Thief In Your Bed!

Many people are not aware of the health robbing effects of getting too little sleep. We are a population of overworked, over scheduled people, always trying to cram as much into our days as we possibly can.

Some of us even bring our work home with us to finish at night before going to bed, figuring we'll get a head start on tomorrow's work. We tend to stay up late to watch the news or a late-night television show to try and relax before bed. We drink, eat or smoke late at night and that tends to keep us up or cause us to wake during the night, robbing us of a really good night's rest.

In our attempts to cram more doings into the day (for whatever reason—whether to get more work done or to grab a little extra relaxation or pleasure time before hitting the sack), we are putting ourselves at a greater health risk.

This article will outline the five ways (that you may not be aware of) that insomnia or poor sleep patterns can affect your overall health and fitness. We'll cover five key factors:



1. How Insomnia Slows Weight Loss And Muscle Growth

We'll get into how loss of adequate sleep increases hunger. A lack of adequate sleep is stressful on the body; fat cells then respond to stress hormones that are released, such as cortisol, which in turn stimulate hunger, creating a viscous cycle.
We'll talk about growth hormone, how a lack of deep sleep levels reduces growth hormone, and what the consequences of that are, and what happens when the body hoards extra calories—which you probably already know—those extra calories get stored as fat!

2. How might you be at risk for diabetes?

If you are consistently not getting enough hours of sleep at night, you could be putting yourself in danger of setting into motion a whole cascade of body responses that can lead to pre-diabetes. Too few hours of sleep can wreak havoc with carbohydrate metabolism. If carbohydrates are not metabolizing as they should, blood sugar levels will rise, and that can mimic what is known as *insulin resistance.* And that can create the condition of diabetes. We'll discuss more about this as you read further.

3. Can lack of adequate sleep lead to obesity and a higher body mass index?
We'll discuss research that indicates a link between insufficient sleep, hormone imbalance, increased food craving and increased weight gain, leading to a greater likelihood of obesity.

4. Is there a risk of heart failure?

We'll define heart failure and discuss how even partial sleep deprivation can increase your risk of developing chronic inflammation, which can damage the heart, as well as other organs.

5. A compromised immune system

Lastly, could too little sleep compromise your immune system, leaving you more vulnerable to colds and other respiratory infections?

Sleep plays an important role in supporting your immune defences. Research also suggests that insufficient sleep can affect how your body responds to vaccination, potentially reducing the immune response generated. So, even if you choose to get vaccinated, **adequate sleep remains an important part of supporting your body's ability to defend itself against infection.**

If you've noticed a drop in your energy levels, insufficient sleep could be a contributing factor. Less sleep often means less energy, greater fatigue, and difficulty concentrating, making it harder to accomplish everything you want to do. When you sleep well, you're better positioned to feel energised, think clearly, and perform at your best.

With that brief introduction, let's explore five important health risks you may face when you're not getting enough sleep.

Chapter 2 - How Insomnia Slows Weight Loss And Muscle Growth

Medical studies recently are indicating that loss of the body's normal sleep requirement (about 7.5 to 8.5 hours a night) can cause an increase in hunger and thus affect body metabolism that can make losing weight more difficult. Here's how it works:

Þ Fat cells respond to the type of food we eat and are affected by hormones and how they function in the body. Cortisol is a hormone that the body secretes during levels of physical or emotional stress. Lack of adequate sleep puts a stress on the body and causes the release of increased levels of cortisol.



The increased levels of cortisol, in turn, stimulate sensations of hunger, even when the stomach is full. Therefore, continued sleep loss leads to feeling hungry much of the time, even when you are not really hungry.

Þ When we don't get adequate amounts of sleep, we tend to sleep less deeply. It's the deep sleep that restores our energy levels. A protein known as growth hormone helps regulate adult proportions of fat and muscle in the body. When we lose deep sleep, we reduce our levels of growth hormone. Fat to muscle proportions get unbalanced, and the ability to lose fat and increase muscle is reduced.

- A lack of adequate sleep can prevent carbohydrates from breaking down correctly. If carbohydrates are not breaking down into their simple sugars and metabolizing correctly, this can lead to elevated blood sugar levels which creates an increase in *fat storage.* The increase in fat storage makes losing weight more difficult.
- With fewer hours of sleep each night, calories are not metabolized by the body as efficiently as they normally would be. The body begins to pack away those extra calories in the form of fat also, and the build-up of more fat deposits slow down the body's ability to shed those calories--thus it becomes harder to lose the weight.

Chapter 3 - At Risk for Diabetes

Ifyou are getting only four or five hours of sleep at night, you are in partial sleep deprivation. Research shows that this can increase your risk of developing chronic inflammation and/or diabetes.

Ifyour blood sugar levels are out of whack, you probably also are not sleeping well. Evidence is mounting to suggest that not sleeping well can lead to conditions of pre-diabetes, which increases your risk of getting the full-blown condition of Type II diabetes.

Here's how that can happen:

Excess blood sugar (glucose) circulating in the bloodstream creates a reaction similar to *insulin resistance*, which can lead to Type II diabetes.

What exactly is insulin resistance?

The role of insulin is to absorb the excess blood sugar, storing it temporarily in the liver, muscles, and other tissues, so that this excess is not circulating in the bloodstream. When there is insulin resistance, the insulin is not being utilized efficiently or properly, meaning it is not doing its job of removing the excess sugar (glucose) in the blood, so blood sugar levels build up.

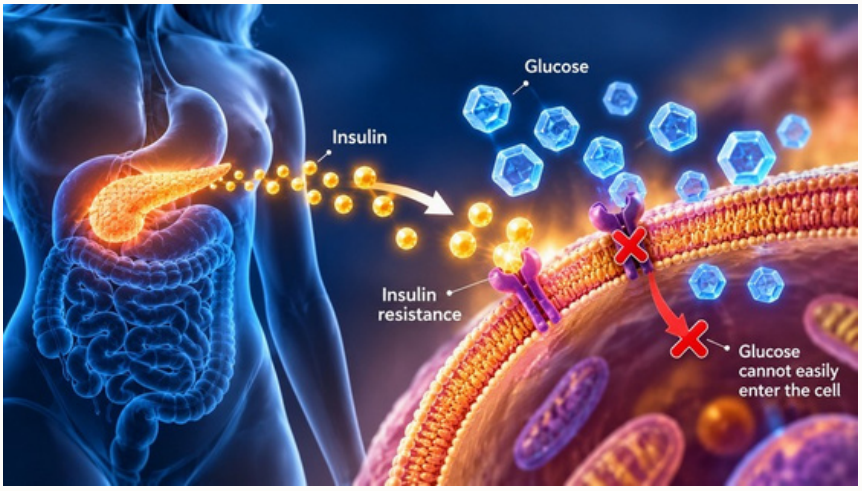


When your blood sugar gets too high, the kidneys go into action trying to bring the levels down, so you urinate a lot.

That means you are probably getting up frequently during the night to go to the bathroom—and that means you are not getting a good night's rest. That makes you chronically tired.

Ifyou are tired, you want to get energy from somewhere, so you tend to eat more--especially foods high in sugar or other foods which give a temporary energy boost. These high sugar-containing foods cause blood sugar levels to spike. The body wants to maintain a constant level of circulating blood sugar—not too high and not too low.

Fewer hours of restful sleep means compromising the body's ability to metabolize carbohydrates efficiently, leading to increased fat storage. Again, this leads to excess sugar circulating in the bloodstream, insulin resistance, and the condition of diabetes.



Chapter 4 - Can Chronic Insomnia Lead to Obesity?

Evidence is also growing to suggest that insufficient sleep may be a factor in weight gain. Research conducted over a 16-year span at *Case Western Reserve University* in Cleveland, Ohio, showed that women getting habitually five hours or less of sleep at night had a slightly increased rate of weight gain as compared to those getting at least seven hours per night.

In addition, a *Columbia University* study indicates that individuals between 32-49 years of age sleeping less than seven hours a night have an increased average body mass index (BMI), with greater likelihood of obesity than those getting at least seven hours of sleep nightly.

There is also a correlation between higher BMI and getting to bed later and waking up late.

The Role of Hormones in Sleep Deprivation

Inadequate sleep is closely linked with the tendency toward obesity, and this link has been known for decades. However, in 2004, a researcher, *Eve van Cauter*, working in endocrinology at the University of Chicago, discovered that the evidence was more than statistical. There was a genuine physiological connection.

Two hormones associated with appetite, called leptin and ghrelin, are disrupted with inadequate sleep. Ghrelin is believed to be involved with long term weight regulation in the body. When the stomach is empty, ghrelin is secreted by cells in the gastrointestinal tract. Ghrelin alerts the brain that it's time to eat.

Fat cells send leptin into the bloodstream when there are sufficient levels of fat storage, so it acts to suppress or shut down appetite and the desire for food. Researchers found that when we don't get enough sleep, the hormones start malfunctioning and deliver wrong messages to the brain. Lack of adequate sleep raises the levels of ghrelin and causes levels of leptin to drop.

The test subjects in the University of Chicago study were healthy, young male college students. With sleep deprivation, the test subjects craved much more high-calorie, high-density foods. Within a week, subjects' blood tests showed increased cortisol production (that hormone that is linked with higher levels of belly fat). Even more significant—the tests also indicated subjects' inability to utilize insulin (insulin resistance) that mimicked patients with diabetes. The subjects returned to normal health after catching up with their lost sleep.



The study done was small and more follow-up research with larger studies needs to be carried out, but the conclusion was that inadequate sleep increases high-calorie food craving which leads to eating more, which causes weight gain.

A survey held during the two-year period from 2004 to 2006 by The *National Center for Health Statistics*, involving over 87,000 adults, also showed the link between sleep loss and obesity. In the population of those getting less than six hours of sleep a night, one third were obese. Of those getting seven to eight hours' sleep each night, the rate of obesity was only 22%.

The same statistical links between obesity and lack of sleep show up in children and teens. Teens who do not get adequate sleep, especially REM sleep (the rapid eye movement associated with dreaming) tend to be overweight.

A *2004 study* showed that people who slept less than six hours per night were almost 30% more likely to become obese than those who slept more.

Clearly, getting enough sleep should be included as part of an overall health regimen of exercise and dietary considerations. Getting the proper exercise and watching your diet, besides enabling you to lose weight, may help you sleep better.

If you are already overweight, this could be one of the factors causing your inability to get adequate rest. They go hand in hand.

Chapter 5 - Can Insomnia Put You At Risk For Heart Failure?

Heart failure is identified by failure of the heart to pump enough blood throughout the body while maintaining the correct blood pressure. This condition usually occurs because the heart muscle has become too hardened or too weak to function effectively.

If you are getting only 4 or 5 hours of sleep at night, you are in partial sleep deprivation. Research shows that this can increase your risk of developing chronic inflammation and/or diabetes. When your risk of diabetes is increased, this, in turn, increases your risk of developing heart disease.

Over time, an increased inflammatory response damages not only the heart, but arteries in the brain and kidneys.



Insomnia and the Risk of Heart Failure

Research has identified an association between insomnia symptoms and an increased risk of developing heart failure. A large Norwegian study published in the

European Heart Journal investigated this relationship in more than 54,000 adults who did not have heart failure when they entered the study.

Participants were followed for an average of 11.3 years. Researchers found that those who regularly experienced all three of the following insomnia symptoms—difficulty falling asleep, difficulty staying asleep, and non-restorative sleep—had more than four times the risk of developing heart failure compared with those reporting none of these symptoms. This association remained after researchers adjusted for several other factors that could influence the results.

Although these findings are significant, the study demonstrates an association rather than proving that insomnia directly causes heart failure.

The exact mechanisms linking insomnia and heart health are not yet fully understood. One possible explanation involves the body's stress response.

Persistent sleep difficulties may contribute to increased sympathetic nervous system activity and changes in stress hormones, potentially placing additional strain on the cardiovascular system over time. Chronic inflammation and metabolic changes may also play a role, although further research is needed to clarify these pathways.

These findings reinforce the importance of recognising persistent sleep difficulties and taking steps to improve sleep quality as part of a broader approach to cardiovascular health



Chapter 6 - How Insomnia Can Create a Compromised Immune System

Lack of adequate sleep interferes with proper functioning of your immune system, making you more likely to pick up the flu and colds. You are even more susceptible to the H1N1 virus. Your immune system works to keep you protected from colds, flu and other illnesses. If it is compromised, it can't do the job it was intended to do.

Our immune systems are complex. Several different types of cells and proteins are involved in fighting the bad guys.

T-cells, which are part of the immune system, gain maturity in the thymus gland (the



"T" stands for "thymus"). T-cells go down in number when we are in a sleep deficit. And cytokines, involved with causing inflammation, go up. Not so good! This puts you more at risk for picking up a cold or the flu. Not getting enough sleep brings down your immune system's ability to fight off the little buggers.

And once you do get sick, lack of adequate sleep affects your body's ability to fight the invaders. The fever response helps to battle the infection, and during sleep, there is a better fever response (which is why a fever tends to go up during the night). So if you are not sleeping, your fever response is lessened, and this could prolong the time it takes you to get better.

Sleep and Your Immune Response

Research suggests that insufficient sleep can influence how effectively your immune system responds to infection and vaccination. Sleep plays an important role in immune function, helping your body coordinate its defences against harmful pathogens.

Studies have found that people who regularly sleep too little may be more susceptible to respiratory infections. Insufficient sleep may also affect the antibody response your body develops following vaccination. If you choose to receive a flu vaccination, getting adequate sleep is another way to support your overall immune health. However, poor sleep does not mean a vaccine will be ineffective or that you will necessarily become ill.

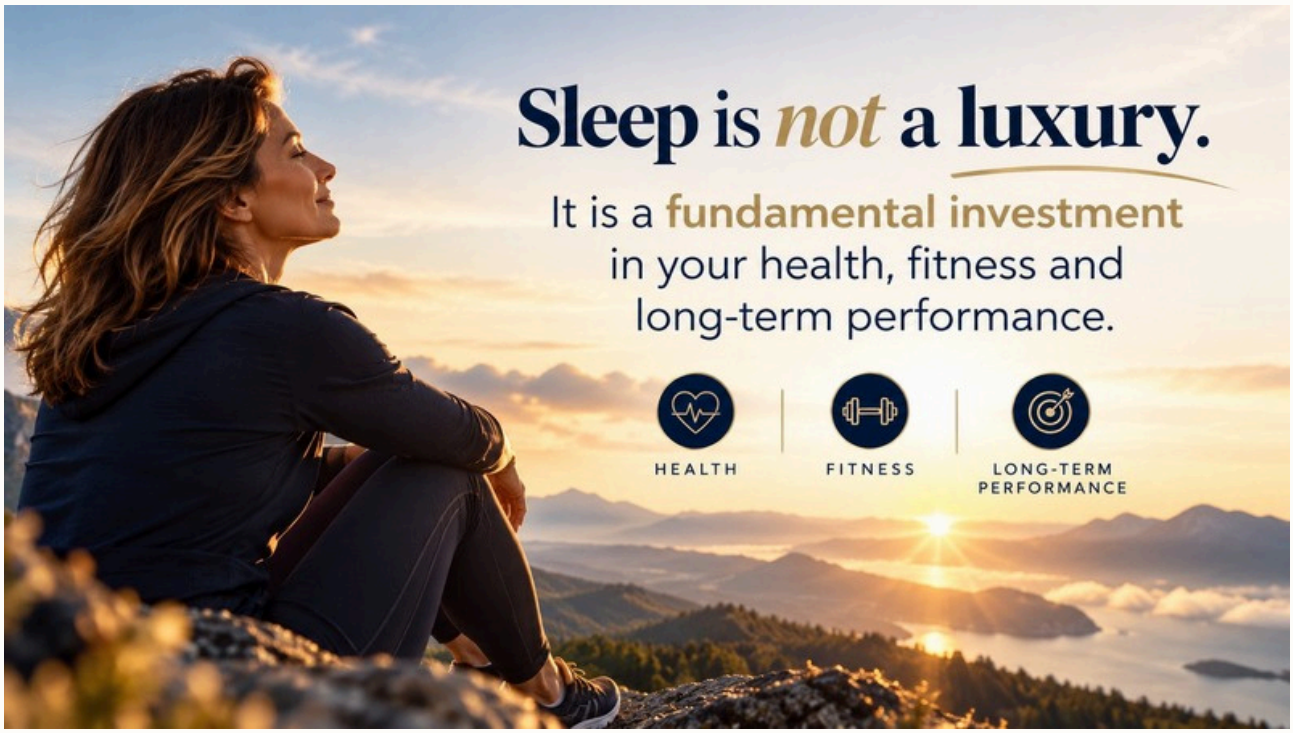
Sleep scientist Matthew Walker has highlighted research demonstrating the relationship between sleep duration and susceptibility to the common cold. In a study published in *Archives of Internal Medicine*, researchers found that adults sleeping fewer than seven hours per night were almost three times more likely to develop a cold following controlled exposure to the rhinovirus than those sleeping eight hours or more.

Other research has investigated the relationship between sleep duration and pneumonia. One *large study* found that women sleeping five hours or less per night had a higher risk of developing pneumonia than those sleeping eight hours, even after accounting for several other influencing factors.

These findings highlight the importance of consistent, good-quality sleep in supporting your immune defences. While sleep alone cannot prevent every infection, it is an essential component of maintaining your health and resilience.

When you consider the potential effects of insufficient sleep on your immune system, cardiovascular health, energy levels and overall wellbeing, the importance of prioritising sleep becomes clear.

Sleep is not a luxury. It is a fundamental investment in your health, fitness and long-term performance.



Conclusion

In the fast-paced, modern world, the importance of sufficient sleep often takes a back seat to our hectic schedules. However, as we've explored in this book, insufficient sleep is like a sneaky thief in our beds, silently robbing us of vital health and fitness. The consequences of inadequate sleep extend beyond mere tiredness; they delve into the intricate connections between our sleep patterns and various aspects of physical well-being.

From hindering weight loss and muscle growth to increasing the risk of diabetes, obesity, heart failure, and compromising our immune systems, the toll on our health is significant. The chapters shed light on the physiological mechanisms at play – from the disruption of hormones like cortisol and ghrelin to the impact on insulin resistance and inflammatory responses.

This book serves as a compelling reminder that a good night's sleep is not just a luxury but a crucial element in maintaining a healthy lifestyle. It is not merely about feeling well-rested; it is about safeguarding ourselves against a cascade of health risks. As we navigate the demands of our daily lives, let's prioritise the time we spend in bed, recognising that adequate and quality sleep is an indispensable ally in our quest for overall well-being.

JOHANN CALLAGHAN
THE SLEEP SUCCESS COACH

WHAT'S NEXT?



You now have 20 Techniquesto increase yourROIthrough the Sleep Advantage. The question is, will you implement them at the level your role demands?

Leadership Starts with Energy
At your level, performance is not about working harder. It's about operating with precision, clarity, and sustained energy. That does not happen by chance. It is built, deliberately.

Design Your Sleep Strategy
If you are serious about elevating your performance, you need more than information. You need a strategy aligned to your demands, your schedule, your biology, and your level of responsibility.

BOOK A PRIVATE 15-MINUTE SLEEP STRATEGY CALL.

We will identify where your energy is being lost, and how to convert it into a measurable advantage.

STOP OPERATING BELOW YOUR STANDARD

Fatigue doesn't just impact how you feel. It impacts how you think, decide, and lead. When your energy drops, your standards follow.

OPERATE AT YOUR HIGHEST LEVEL

This is about more than sleep.

It's about how you show up ineveryroom,everydecision, every conversation. Energy is your edge. Treat it accordingly.

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