

Powerful Sleep

Secrets of the Inner Sleep Clock

**How to *Sleep Less*,
and Have More Energy
Than You Ever Had Before**



by Kacper M. Postawski
The Insomnia Terminator of WonderfulSleep.com

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Introduction

Is it possible to sleep for 4-5 hours and feel more rested, more alert, and more energized than you did when you slept for 8 or 9 hours (or more)?

Yes it is! While this e-book may be short, the information in it is extremely powerful, do not underestimate it. This is state of the art optimum life performance information, which may shatter some of your old beliefs about sleep, and give you many learnings and understandings that you will be able to use to revolutionize your life. If you follow the information in this short e-book you will be able to:

- 1) Reduce your sleeping time.
- 2) Increase the Quality of your Sleep
- 3) Gain more energy than you ever had before.
- 4) Eliminate all feelings of drowsiness / inability to concentrate during the day.
- 5) Reduce your Daily Stress Levels

Just imagine what radical changes you could create, and what things you could accomplish in your life if you were able to sleep just *half* as much as you do now? *Time is the most precious commodity we have in our lives!* Or what you could do if you slept the same amount of time you do right now, but the sleep you got was more energizing and fulfilling than ever before?

The Popular Myth about Sleeping

Contrary to popular belief, you do not need 8 hours of sleep to function properly during the day. There's a crazy media hype out recently telling people that America is sleep deprived, and that we should all get 8 hours of sleep, *blah blah blah*. This is absolute non-sense, and any sleep expert would agree.

There are many people in the world today that perform extraordinary physically and mentally demanding tasks and sleep for only 4 to 6 hours per night. *Are these people living zombies? Or did they somehow, consciously, or un-consciously tap into a hidden fountain of energy, a **system** that lets them perform this way?*

A good example of a person like this is someone in a trans-atlantic yacht racing crew. The crew takes shifts being at the helm and on deck, and has to fight vigorous weather, poor eating conditions, continuous motion, and drastic temperature changes, for up to 3 months! At this time each crew member sleeps about 4-5 hours per shift, and has no trouble performing the highly mentally and physically demanding tasks of sailing a yacht, fighting 30 foot waves, adjusting sails, and concentrating on keeping the boat on course.

There are also many other individuals in the world who don't sail yachts or perform outrageously physically demanding tasks, yet they also sleep very little. Regardless of their "sleep deprivation", they're always up beat, energetic, and full of life. Were these people just born with this ability, or is it something they're doing on a conscious / subconscious level?

Recent “Eye Opening” Discoveries

The longest recorded times that human beings have gone without sleep have been:

- Randy Gardner in 1965, Randy went without sleep for 11 days (That’s 264 hours!).
- In 1980, Robert McDonald of California stayed awake for a record 18 days 21 hours and 40 minutes. (453 hours)

In both experiments, the subjects only experienced drowsiness and trouble with concentrating. This dispelled the popular myth that sleep deprivation will make you go crazy.

In another experiment, a 6 year study done by the University of California, completed in 2002, revealed that people who slept less than 8 hours actually lived longer! Up until this experiment (which involved 1.1 million participants), there were many conflicting beliefs about whether sleeping less was more health beneficial. Many would argue that sleeping more was actually more beneficial. Both sides of the argument had experimental data to prove their theories. However, none of the previous experiments were carried out with such a large group of people over this long of a period of time. *Many people die due to other circumstances, which have nothing to do with how long they sleep.*

How Much Sleep Do You Really Need?

This is the first belief about sleep you will consciously dispel in this e-book. The Questions you should be asking yourself instead are really:

“What Actions can I take to raise the QUALITY of My Sleep?”

“How long does Quality Sleep Take for Me?”

“If I increase the Quality of my Sleep - Will it be possible to gain more energy, enough to reduce my sleeping time and do all the extra things I want to do in life?”

There are people who get an average of 8 to 10 hours of sleep, and always feel tired, drowsy, low on energy, and complain about “poor sleep”, or “sleep deprivation”, and try to compensate by sleeping even longer! In reality, they are sleeping TOO MUCH, and decreasing the “quality” of their sleep as well as their energy levels. This happens because there is an underlying energy and sleep mechanism in their body that they’re not even aware of.

You see, it is not a question of Quantity, but rather Quality :) This is the most important aspect about sleep you should grasp, and throughout this powerful e-book, we’ll be exploring the secrets of this little known understanding in detail.

The Mystery of Quality Sleep

You hear people saying this so often these days - but you probably haven't thought of it up until now. You've probably heard someone say this to you, or perhaps you've

even used these lines yourself in your life:

“I just need to get a good night's rest...”

“A Good night's rest keeps the sickness away...”

“Get some quality sleep, you'll feel better...”

But what on Earth is *quality* sleep?

Is it some mysterious force that just comes and attacks us in the middle of the night that we have no control over? Most people have very limited knowledge and beliefs about what sleep is. Often sleep just means “sleep”, and nothing more, and we don't pay much attention as to how it affects our health.

Until the 20th century, it was believed that our minds completely turned off during sleep. Recent scientific discovery has un-covered something completely different. What you'll discover in this e-book is that once you sleep, your mind enters a state so fascinating and rich with structure that it makes being awake look boring! When we're sleeping, our minds are more active than they are when we're awake - which you're about to learn. Knowing this may lead you to asking yourself the question:

“If our minds are so active during our sleep, perhaps my sleep has a greater effect on my body, and my health, than I previously thought?”

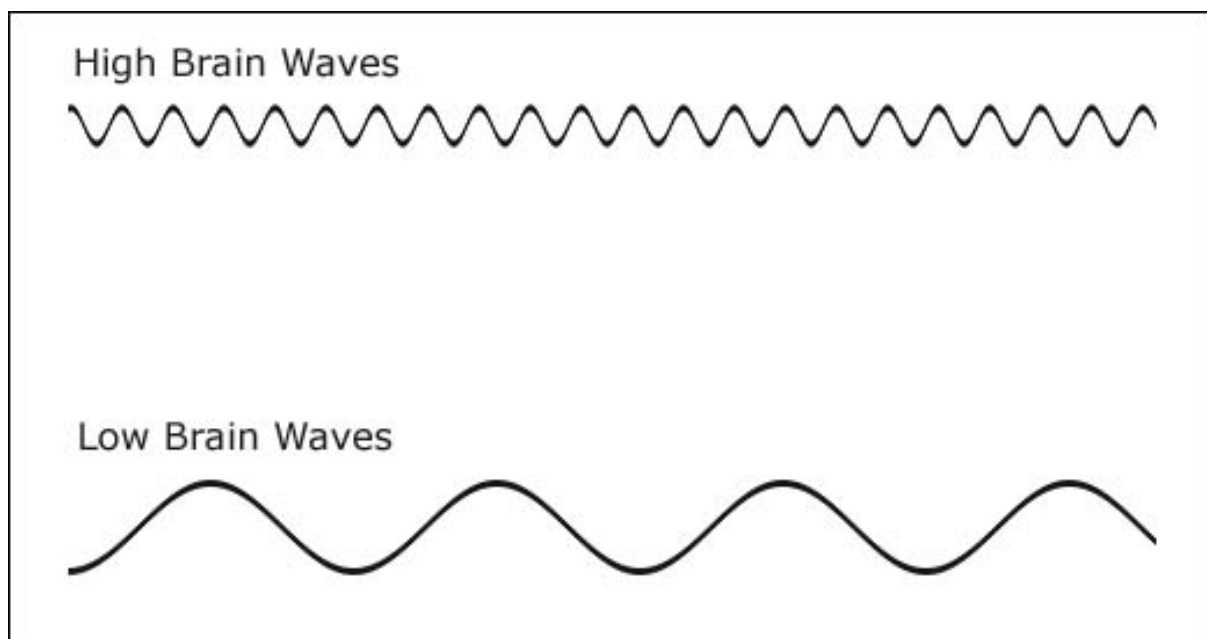
Sleep Mechanics

What is Sleep, and Why Do We Sleep?

Your Crash Course on Brain Waves

Ah, before we take a step further into the meat of this juicy information, I'd like to give you a new understanding, which will make this easier to grasp. You may have already learned that our minds exhibit a certain *brain wave* when we're alive. It's not important for you to understand how these brain waves work or what they are, it's simply a measure of brain activity.

The general understanding you may want to have is that brain waves can either get "high" and more intense. Or they can get "lower" and become slower, less intense, and for lack of a better word, *lazy*.



The figure above is a general example of high and low brain waves, and how they might appear on an EEG (electroencephalogram) reading. *An EEG is a reading that measures brain wave activity by hooking up electrodes to points on your scalp.*

The 5 Stages of Sleep

There are 5 stages of sleep. Meaning, you're not always having the same experience when you're sleeping, albeit you're not aware that you're having them. As you read about these, and you allow this new understanding to come into view - you may begin to realize just how this mechanism may have played a key role in some of the sleepy experiences of your life.

When You're Fully Awake

Before you sleep, you're awake. *Duh!* But what really happens in your mind when we're fully awake? It's at this point that our **wakefulness system** is at its peak point

during the day, and our minds exhibit really high brain waves, called **beta brain waves**.

When we're awake, and in beta brain waves, we are mostly in-tune with our super active conscious mind, which races from thought to thought, and keeps us on track with our daily lives. *We'll get into the fun part of understanding the conscious / subconscious mind later on in the "Getting the Most out of Your Dreams" e-book you received in the downloadable package with this book.*

Stage 1 Sleep

Whether you know it or not, you have consciously experienced Stage 1 Sleep all your life.

Can you remember a time when you were drowsing off, day dreaming, or "zoning out" during a boring class or lecture?

It's usually during times like these (*and you'll learn why*) that we enter Stage 1 Sleep. During this stage we exhibit slightly lower brain waves called **alpha brain waves**, and some **theta brain waves**. Alpha brain waves are also sometimes called "awake waves" - because we're still very awake when we're exhibiting them.

In this stage our body relaxes, respiration and heart rate slightly drops, and our minds tend to drift into an altered state of creativity and relaxation, where thoughts drip like honey and it feels goooooood to just be there.

You can think of Stage 1 Sleep as a "doorway" to your sleep.

Stage 2 Sleep

During stage 2 sleep, we experience patterns of brain waves called **sleep spindles**, and **K-Complexes**. These are sudden bursts of brain activity. Some scientists think this symbolizes the gradual attempt by the brain to "turn itself off", in a manner of speaking.

During this stage we are still very wakable. In fact, during sleep studies, most people woken up out of Stage 2 sleep say "I was still awake."

Stage 3 & 4 (Deep Sleep)

During stage 3 and 4 our brain waves reach their lowest frequency, we exhibit very low brain waves called **delta brain waves**, and our mind goes back and forth between delta and theta brain waves.

It's during these 2 stages that we are truly officially "asleep", this stage is also called **deep sleep**. As we enter deep sleep, our blood pressure, respiration, and heart rate, reach their lowest point of the day. Our blood vessels dilate and most of the blood which is usually stored in our organs during the day travels into our muscles to nourish and repair them.

Stage 5 (REM Sleep)

Stage 5 Sleep is probably the most fascinating stage of sleep, as scientists still do not know the true purpose of this stage. Stage 5 sleep is also termed **Rapid Eye Movement, or REM sleep**.

During the 1950s a scientist by the name of Nathaniel Kleitman discovered that when people were in this stage of sleep, their eyes moved very rapidly in all directions. He also discovered that when people were woken up from this stage, 95% of the time they said they were dreaming just at that time. This is why REM sleep is also commonly referred to as **dream sleep**. It's believed that we dream mostly in the REM sleep stage.

What happens to our brain waves during REM sleep?

As you have learned so far, it would naturally make sense that our brain waves become even LOWER in this stage of sleep - however, the opposite is true. Our brain waves rapidly increase, and they're very identical to the ones we exhibit when we're wide awake! This kind of makes sense as you think about it - since when we experience dreams, they often feel so real and vivid it's hard to realize they weren't real when we finally wake up.... *and of course, sometimes when we wake up we tend to wish those dreams WERE in fact real :o)*

We ALL dream every night; however, not all of us remember our dreams when we wake up. *You'll explore a killer technique to remember all your dreams vividly in the [How to Get The the "Vivid Dreams" e-book that came with this book.](#)*

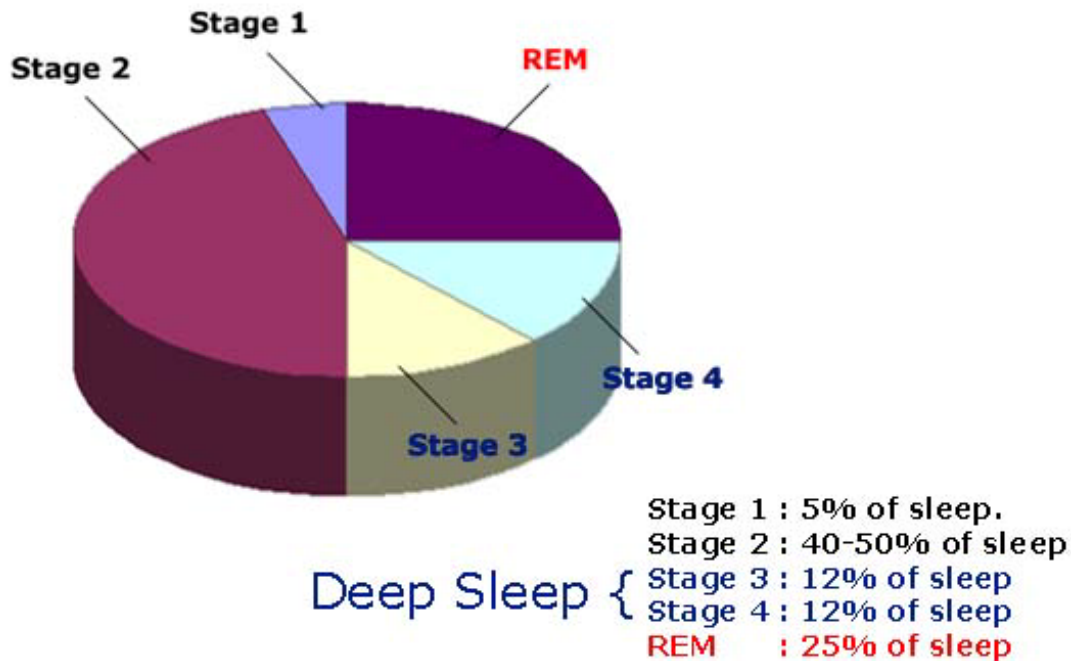
Sleep Cycles

Now that you know the basics of how sleep works, we can explore how deep the rabbit hole really goes :o) What is quality sleep?

Well, first you may want to understand that the sleep stages explained above don't happen only *once* during sleep. They happen multiple times during sleep in what are called **sleep cycles**.

During a sleep cycle, we progress from stage 1 to stage 5 multiple times. It would seem really complicated to write out how this works, and because I want you to understand this and grasp this concept clearly, I've drawn it out for you! *Aren't I Great?* Refer to the graph below, and then we'll go over it in detail.

Duration of Sleep Stages



The above chart shows the amount of time an average person spends in each stage of sleep. Let's talk about this in a bit more detail.

How Important is Deep Sleep?

- It's been proven that when we're deprived of deep sleep, we experience our greatest day-time impairments, such as drowsiness, nausea, headaches, muscle aches, and trouble concentrating.
- When we're deprived of sleep for any irregular amount of time, our body will sacrifice all other stages of sleep to regain "deep sleep". It's believed this is why our body tries to gain as much deep sleep as possible in the first 3-4 hours of our sleep.
- Because deep sleep is the first stage of sleep the body tries to get the most of, it's the stage least likely to be missed. As you may recall from the previous graph, the periods of deep sleep were longest in the beginning.
- Our immune system also turns on during deep sleep to fight diseases. *This is why we sleep more when we're ill.*

How Important is REM Sleep?

Studies show that when we're deprived of REM sleep, we exhibit certain day-time difficulties as well, mainly trouble with concentrating, and sometimes drowsiness.

However, because the body tries to recover deep sleep first as a result of sleep deprivation, we can assume that REM sleep isn't as important to restoring our physical functions. It's not clearly known what purpose REM sleep serves; however, scientists do have a theory that we absorb most of our daytime learnings during REM sleep. *This would explain why babies spend so much time sleeping, 50% of that time in REM sleep.*

So what is Quality Sleep?

As you may have already guessed, quality sleep consists of being able to sleep deeply. For our minds to easily slide into the deep stages of sleep, and stay there for the time needed. Easier said than done.

So I've got a question for you: What controls how long and how deep you sleep?

There's an underlying mechanism in our bodies called our "body clock". However, I don't like the name so I will simply refer to it as the **sleep clock**. Your sleep clock is a system inside of you which controls how you sleep, how deep you sleep, when you sleep, and how awake you feel during the day. **Once you understand this system you'll be able to take control over your sleep and your energy!**

The challenge in our society is that our sleep systems have been weakened by so many outside stressors that we're not even aware of, that our sleep clocks are totally out of whack. This is why so many people can't sleep deeply, why they may suffer from insomnia, poor day-time energy levels, or find themselves waking up several times in the middle of the night. *Usually when you wake up in the middle of the night it is at the end of a sleep cycle in Stage 2 or REM sleep when our brain waves are highest and we're most wakable. This happens because of a weakened sleep system.*

The Inner Sleep Clock

The Underlying System that Governs Our Sleep and Energy

Have you ever wondered? How some people can wake up at *precisely* the same time every morning without an alarm clock? Perhaps you've had this happen to yourself a number of times, or maybe it happens already.

Also, why is it that we have alarm clocks to tell us when to wake up, but very few people have alarm clocks to tell them when to *go to sleep*? I know, it's kind of a stupid question, but there's actually a reason behind it, and you're about to find out why.

There is an underlying mechanism, called the sleep clock, which consists of a number of variables in your body that tell it when to feel tired, and when to feel awake. It also controls how deep you sleep, and how long you sleep.

Refer to the chart below:

Circadian Rhythm (Body-Temperature Cycle)



Neat eh? But what does it mean? Ha...

Circadian rhythm

The first, and most important part of your sleep clock is your **body temperature rhythm**. It's also known as a **circadian rhythm**.

Contrary to what most of us are taught in grade 5 science class, our body temperature doesn't stay at a constant 98.6° Fahrenheit (37° Celsius). Our body temperature actually has a specific rhythm to it. It rises and drops as the hours of the day progress. The difference in body temperature is about 3° Fahrenheit (2° Celsius)

This periodic rise and drop in body temperature tells our mind when to feel tired and when to feel more awake. As body temperature rises, we tend to feel more awake and our brain waves are usually higher. As body temperature drops, we tend to feel more lethargic, tired, and lazy - this is a big cue for our minds to lower brain waves and enter Stage 1 sleep.

As you look at the graph again, you might notice that there is a slight “drop” of body temperature during the mid afternoon. This is a usual mid-afternoon body temperature slump. You may have noticed, at some point in your life, that you usually feel an urge to sleep or take a nap during the afternoon. This is completely natural, and sometimes the pressure to sleep during the afternoon is as strong as the pressure at night! *(Although most of us chose a drug of choice, such as caffeine, to combat this body slump).*

Because of the demands our society puts on us, such as work, children, and social life, most of us can't sleep at this time. As we'll explore later on, nature actually intended for us to have a nap at this time - we'll talk about the science of naps in detail.

Generally, body temperature begins to rise in the early morning hours, drops sometime during the afternoon, then begins to rise until the early hours of the evening. It's at this time that we have “peak performance” body temperature, most people are most active during the early evening hours, this is where body temperature is the highest. Afterwards, body temperature drops and reaches its lowest point at around 4 am.

If your body temperature rhythm is too flat (doesn't rise or drop low enough), or if it's messed up in any other way, chances are you will experience sleep difficulties. It will be difficult for you to sleep deeply. We'll explore all the causes of that later on in this e-book.

It's because of the body temperature rhythm that most of us feel sleepy, at precisely the same time every night. It's also why some people can wake up without an alarm clock at precisely the same time every morning.

Usually, your body temperature rhythm will follow the same pattern regardless of when you fall asleep. For instance if you've been waking up at 7 AM all your life, this means your body temperature begins to rise at this time. It won't matter if you fall asleep at 11 PM, 12 AM, or 1 AM, your body temperature will rise at 7 AM, and you will feel sleepy at the same time you always did the next day. *Unless you take the proper actions to optimize your body temperature, it will usually return to the same pattern. This is the main focus of this book.*

This is the primary reason why **jet lag** happens. When you travel really quickly across several time zones, your body may be in a different time zone, but your temperature rhythm is still following the pattern it did before!

So if you normally live in Florida, and you take a flight to California; if it's 8 PM in California, your body will still think it's 11 PM, based on your temperature rhythm. As you see, your temperature rhythm really acts as an internal “clock”.

Your body temperature rhythm can adjust to a new time zone, or a new sleeping pattern, and this may take from a few days to up to several weeks! *This is why trans-continental jet lag is so severe for some people.*

Your body temperature rhythm is perhaps the most important concept to grasp about

your inner sleep clock. It has a huge impact on how you sleep, and how you function during the day.

So what affects your body temperature rhythm? And how could someone possibly “damage” their body temperature rhythm?

The second important element of your sleep clock is your **melatonin hormone level**, and your **exposure to natural sunlight**.

Melatonin and Sunlight

Have you ever wondered why human beings sleep at night? Did someone just make the decision one day: *“Okay Guys! From now on we’re all going to go to sleep when the big light in the sky turns off!”*

That could possibly be it! But there's actually a system inside of us that uses light and darkness to control certain *sleep* hormone levels

Melatonin is a hormone synthesized in the pineal gland and, to a lesser extent, in the retina. Melatonin is responsible for putting you to sleep and restoring physical energy while we sleep. If your melatonin levels are high, you will experience feelings of drowsiness, loss of energy, etc.

Melatonin is released when we're exposed to darkness. The instant sunlight stops entering our eyes, our melatonin hormone level begins to rise. *Your melatonin levels are EXTREMELY dependant on the amount of natural sunlight that enters your eyes during the day!*

Higher exposure to sunlight delays the body temperature drop, and lets you stay awake and alert longer. Poor exposure to sunlight will promote a quick temperature drop and make you feel sleepy, tired, and out of balance. You will most likely experience the pressure to sleep very early in the day, or the pressure to sleep will be very minimal which might cause insomnia and poor quality sleep.

Because melatonin is released when we're exposed to darkness, it is also sometimes called the **vampire hormone**.

We'll explore exactly how important sunlight is in a later part of this book. However it's important to understand that getting proper sunlight isn't an “optional” part of this program, it's a **MUST**, as it is the main way our body adjusts our body temperature rhythm.

Activity Level

The amount of movement and cardiovascular exercise you get during the night has a huge impact on your body temperature rhythm. Any movement or exercise promotes a quick rise in temperature which can be very beneficial to the sleep system. Exercise creates a higher “peak” point of body temperature during the day, which will increase your energy levels far beyond anything else. Exercise delays the body

temperature drop at the end of the day, allowing you to stay awake and alert longer. Finally, exercise will make the drop of body temperature at the end of the day more drastic and allow your body temperature to stay lower for a longer amount of time; this will promote much deeper sleep.

Prior Wakefulness

Obviously the amount of time you're awake has a direct effect on all three factors above. Your activity levels contribute a lot to your temperature variations. Also, the longer you're awake obviously means you get more potential for sunlight entry into your eyes, which has a direct effect on your melatonin level.

If you're currently sleeping 8 or 9 hours and you feel tired during the day this could actually be a sign that you need LESS sleep. You're sleeping too much and you need to increase your prior wakefulness to create deeper sleep and a more balanced body temperature rhythm.

The four factors up above control how long you sleep, and how deep your sleep is. To summarize, the factors that affect your sleep the most.

- 1) The body temperature rhythm.
- 2) Natural sunlight entering your eyes, as it has a direct effect on your melatonin levels.

Understanding how the body temperature rhythm affects your sleep is the key to optimizing your sleep. The body temperature rhythm is really what makes the sleep clock a... "Clock".

Usually, your body temperature follows the same pattern regardless of when you go to sleep. For instance, if you routinely get up at 8 am every day, this means your body temperature begins to rise at 8 am. If you feel drowsy for the next 3 hours, this means your body temperature is slowly rising during this time, and hasn't reached it's peak point. For most people the optimum peak point of body temperature is at around 6 PM to 7 PM, this is when we are naturally most active and have the most energy. *Study the previous graph if you still aren't clear about how the body temperature rhythm flows.*

If all of a sudden you revert to waking up at 6 AM instead of 8 AM, this doesn't mean that your body temperature will begin to rise at 6 AM, it will remain low and begin to rise at 8 AM like it usually did, and possibly making you feel drowsy for 5 hours instead of 3. *Unless you expose yourself to high-intensity light, as we'll explore soon.*

This is why it is so hard to force yourself to wake up early, and why the popular belief persists that waking up earlier than usual is painful!

This natural "clock" is also why some people do not need an alarm clock to wake up at PRECISELY the same time every day. This isn't a mysterious psychic force they have; their body temperature simply rises at precisely the same time everyday. In the next section we'll examine all the details of optimizing your sleep clock.

Section Summary

Take this short quiz to better learn and remember what you've just read.

1. What best describes deep sleep?

- a. Super high brain waves, twitching muscles and rapid eye movement.
- b. A type of human hibernation, we can use deep sleep to sleep past really cold times.
- c. Low brain waves, respiration, heart rate, and blood pressure. Dilated blood vessels to allow blood to the muscles.

2. What is the sleep clock?

- a. A system inside your body that counts the time until your inevitable death.
- b. A system that measures blood pressure to determine when it's time to sleep and when it's time to be awake and alert.
- c. A system that measures light intensity and body temperature to determine when to sleep, and how physically recharging your sleep is.

3. We sleep during the night because...

- a. We're all vampires except we're not aware of it because we enter a different state of consciousness while we're out partying with Dracula.
- b. It just seems like a good idea to sleep at night so we all do it.
- c. Melatonin is produced during the day which prevents us from sleeping.
- d. Melatonin is produced when we're exposed to darkness, which causes us to feel sleepy and our brain waves to lower.

4. Our immune system turns on to fight diseases in what sleep stage?

- a. Stage 1
- b. Deep Sleep (stage 3 & 4)
- c. REM sleep
- d. When we're sleep walking or snoring.

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[Click here](#) to see what's in the full version of the Powerful Sleep system.

Wishing you Sweet Dreams and an Incredible Amount of Energy in Your Life!

Kacper M. Postawski
PowerfulSleep.com
WonderfulSleep.com