

THE  
**POWER NAP**  
**FORMULA**  
**FOR BUSY PEOPLE**

**Boost Your Energy in 20' Or Less**



**BILL VALANDREAS**

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***Disclaimer***

This material is designed to help healthy people to employ power napping by educating them and teaching them natural techniques that have been used by other people to boost their energy naturally by enhancing their sleep patterns.

No health claims are made for this book; the author is not a physician or therapist. The author and publisher have no liability for any loss, or risk, personal or otherwise, that is incurred as a consequence, directly or indirectly, from any use, misuse, or abuse of the recordings, instructions and methods contained in this material.

***DO NOT LISTEN TO ANY OF THE SLEEP INDUCING RECORDINGS  
WHILE DRIVING OR OPERATING MACHINERY***

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# ***Introduction***

***The Power Nap Formula for Busy People will train you to boost your energy in 20' or less using applied physiology of sleep and advanced sound technology***

Eva just finished her lunch and she's heading towards her car. She gets into her car, sinks comfortably in the front passenger seat and she puts her headphones and sleeping mask on.

After 20' Eva exits her car, overflowed with energy, ready to thrive for her rest day at office and home....

## ***Welcome to the power nap reality...***

People employ napping for two main reasons:

- ✓ To boost their daytime energy, increase creativity and enhance performance
- ✓ To reduce their total sleep time, drawing more time for their daily activities

You can have both...

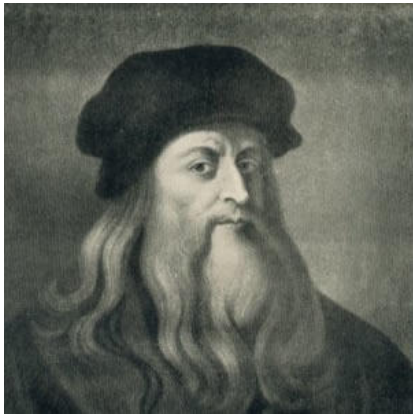
This workbook is about to teach you:

- Why sleep is so important
- What power napping can do for you
- Applying sleep physiology to find out when to nap, where and for how long
- How to use advanced sound technology to nap faster and deeper while waking up fully energized
- The step by step power nap formula
- How to reduce total sleep time by going polyphasic

Napping is for everybody and can make you smarter, happier and stronger.

But before we find out how, let's meet some famous nappers ...

# *The Nappers Hall of Fame*



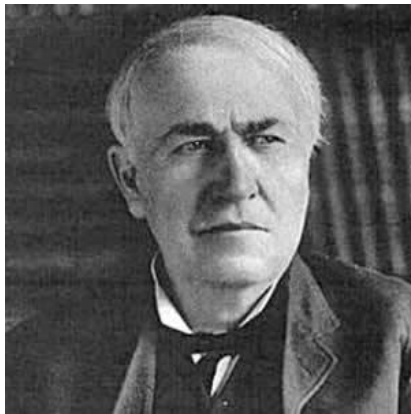
Leonardo Da Vinci



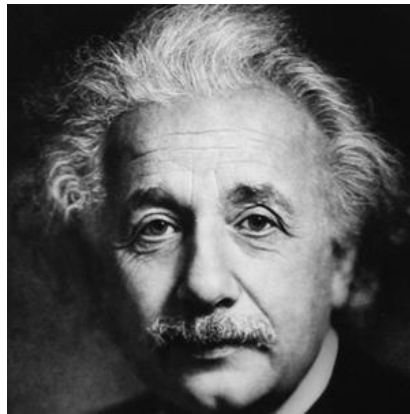
Napoleon Bonaparte



Johannes Brahms



Thomas Edison



Albert Einstein



Winston Churchill



John F. Kennedy



Salvador Dali



YOU

## *Do You Get Enough Sleep?*

If you're like me (and most people) you sometimes don't.

Although we all know how essential sleep is for our health and well-being, we often skimp on sleep chasing to get more done; while access to technology makes it possible to stay busy around the clock.

(By some estimates, we are now sleeping about 20 percent less than a century ago).

Please keep in mind that excessive sleepiness is not just a matter of feeling lousy; it affects our mood, relationships, work, and quality of life.

According to the results of National Sleep Foundation 2008 Sleep in America poll:

- 36 percent of Americans drive drowsy or fall asleep while driving
- 29 percent of Americans fall asleep or become very sleepy at work
- 20 percent have lost interest in sex because they are too sleepy
- 14 percent report having to miss family events, work functions, and leisure activities in the past month due to sleepiness

Lack of sleep can have some serious impact on our health and happiness; some of the consequences of sleep deprivation are

- Increased heart rate and blood pressure
- Increased inflammation as measured by C-reactive protein which has been proposed as a risk factor for coronary artery disease
- Impaired glucose tolerance, which can be a prelude to the development of diabetes
- Increased hunger/appetite which could promote obesity

The good news is that these symptoms usually reverse when normal sleep is allowed.

And of course there's the myth of increased productivity; many of us think that we can accomplish more by sleeping less...

A Cornell University study found that tired workers cost U.S. industry \$150 billion a year in reduced job productivity and fatigue-related accidents!

Another sleep study at Bradley University has found that although the students who stayed awake all night believed they performed better the next day than their counterparts who had eight hours of sleep, it turned out that actually their scores were worse.

And a similar study showed that even six hours of sleep can result to performance deterioration coupled with overestimation of performance.

Now that you have gained some increased insight on sleep's matters please take a moment to estimate your sleep debt using the Epworth Sleepiness Scale below.

It asks you to rate how likely you are to doze off or fall asleep in a variety of circumstances.

In case you haven't done some of these things, just try to estimate the likelihood.

Use the following scale to choose the most appropriate number for each situation:

- 0 = Would never doze
- 1 = Slight chance of dozing
- 2 = Moderate chance of dozing
- 3 = High chance of dozing

SITUATION	SCORE
Sitting and reading	
Watching TV	
Sitting inactive in a public place (e.g. a theater or a meeting)	
As a passenger in a car for an hour without a break	
Lying down to rest in the afternoon when circumstances permit	



Sitting and talking to someone	
Sitting quietly after a lunch without alcohol	
In a car, while stopped for a few minutes in traffic	
<b>TOTAL SCORE</b>	

Just add the numbers; calculate your total score and see its interpretation on the next page...

SCORE	TOTAL SCORE INTERPRETATION
0-8	Normal sleep function
8-10	Mild sleepiness
11-15	Moderate sleepiness; may interfere with daily activities, concentration and relationships
16-20	Severe sleepiness; you should speak to your physician about testing for a sleep disorder
21-24	Excessive sleepiness; you should speak to your physician since you may suffer from a severe sleep disorder

How do we deal with sleep deprivation? The easy way is to have some coffee...

The less we sleep the more coffee we consume; according to the National Coffee Association's 2013 survey, about 83 percent of adults drink coffee in the U.S., up from 78 percent a year earlier. This is more than 6% increase in a single year!

Caffeine can be useful when it's used in moderation; as it's a stimulant it can increase alertness. The problem is that, as with every stimulant, its effect wears down over time; so we need more and more to get the stimulation that we want.

But excessive use of caffeine can result to "coffee jitters", raised blood pressure, heart-racy feelings, anxiety, and of course sleep disturbance that makes us consume even more caffeine...

You see there is a vicious cycle forming out there; the more caffeine we consume the more sleep deprived we get and the more caffeine we need.

***How would it be like if there was some kind of “pill”, a natural cure for sleep deprivation that could boost our energy with no side effects?***

In fact there is; it's ancient as mankind is and it's called napping...

## *What Napping Can Do For You*

We, modern humans are among the few animals on the planet that we are *monophasic* sleepers, meaning that we are taking all of our sleep in one shot. Most of the animals and of course some human tribes too are *polyphasic* sleepers, meaning that they sleep at least twice during the 24 hour cycle.

And that what's napping is all about; getting your sleep in two or more shots during the day.

OK, I am already hearing you saying: "Isn't napping a waste of time?" or "Come and tell that to my boss..."

Did you know that scientists, inventors, artists and world leaders like *Leonardo Da Vinci, Brahms, Thomas Edison, Albert Einstein, Salvador Dali, Napoleon Bonaparte, Winston Churchill, John F. Kennedy, Ronald Reagan, Bill Clinton* and a whole more, used to nap? And they did it for more than few reasons, since napping:

- **Increases alertness**; many studies by NASA and other organizations have found that napping can increase alertness by 100%. Other studies have found that a 20 minute nap is more effective than either 200 mg of caffeine or a bout of exercise. Breaking up your day with a nap, you will make you as alert and energetic for the second part of your day as you were for the first.
- **Relieves stress and anxiety**; sleep deprivation increases the levels of the stress hormone *cortisol*. Too much cortisol weakens our immune system, and restrains memory and learning. It also advocates obesity due to increased glucose intolerance which could lead to diabetes and heart disease.
- **Enhances productivity**; you may feel that napping is not for you because you have too many things to do, but napping restores your learning and working memory. This means that you get better on complex tasks; that is paying attention to one thing while having to keep a bunch of others in your memory.
- **Stretches creativity**; by giving yourself a break to look things from a different perspective. Napping relaxes your brain making space for your creative ideas to flow.

- **Intensifies your senses**; napping can even improve your sensory perception as effectively as a night of sleep. This means that trees look greener, flowers smell stronger and food tastes better.
- **Improves your mood**; napping increases serotonin levels in your brain, promoting feelings of pleasure and well-being, creating a positive feeling and outlook towards life.
- **Can reduce your overall sleep time**; this isn't for everybody but you may cut for a few weeks your overall sleep time by a couple of hours **without being sleep deprived**. Can you imagine what you can do with an extra couple of hours each and every day? This is almost an extra day per week!

Historically, the ideal pattern for human sleep seems to be the biphasic one; taking the main portion of sleep during the night and having a short one during the day. In the Roman Empire, people used to nap at their sixth hour (Roman time) in the middle of the day. This is called "sexta" in Latin and from there comes the word siesta.

Sleep experiments has shown that when participants were living in a cave like environment, not exposed day and night signals they reverted to biphasic sleep patterns.

Things began to change with the industrial revolution when napping begun to be considered counter-productive and in some cases even an evil habit for lazy people.

(Do you think that all these famous nappers were lazy? I bet you don't)

Fortunately things are already changing. More and more people are becoming to realize the benefits of napping in their everyday life and more and more companies are doing the same, allowing for their employees to nap.

*"You must sleep sometime between lunch and dinner... Don't think you will be doing less work because you sleep during the day. That's a foolish notion held by people who have no imaginations. You will be able to accomplish more. You get two days in one -- well, at least one and a half, I'm sure."*

Winston Churchill

**Naps make you smarter, happier and stronger**, but the problem is that many people consider napping quite difficult because:

- It's hard for them to fall asleep during the day
- It's hard for them to wake up (if they finally make it to fall asleep)
- They detest these drowsiness and grogginess feelings upon wake up.

And that's what the ***Power Nap Formula*** is all about; so let's move on to the when's, where's and how long's of napping.

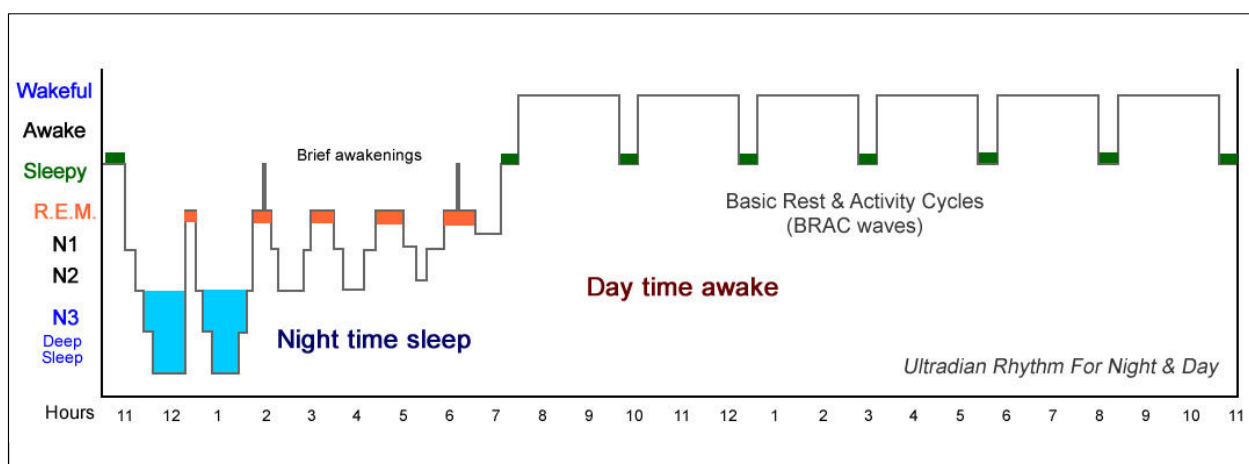
# When to Nap, Where and For How Long

In napping, timing is everything, since poorly timed naps can actually backfire.

There are two aspects about timing; the time of the day and the nap's length. One thing for sure is that **you should not nap for at least 3 hours before bedtime**, since this will interfere with your night's sleep.

**The best time to nap is after lunch time; if you're an early bird you're better near 1pm while if you're a night owl you'll be better around 3pm.**

You can find the perfect time by tuning with your ultradian rhythms; so let's have a look at the following diagram to be more specific:



This is a typical diagram of the day and night's ultradian rhythm. As you can see there are these Basic Rest & Activity Cycles (BRAC waves) from 7 a.m. to 11 p.m.

During each peak (which lasts about a couple of hours) we feel full awake and alert; then there comes a 20' trough (the green ones) where our brain needs to slow down and relax.

During these troughs we find it difficult to concentrate and we may feel a little drowsy too. As you may already guessed these 20' windows are the perfect time for napping.

Of course, you have your own ultradian rhythm which will probably be a little bit different from the above one.

*Listen to your body to find your own 20' window.*

If you are holding a day time job you can nap at your lunch break or upon returning home; this will unwind your body and your mind.

Now that we found out the when, the other important question is for how long. If you want to avoid grogginess upon waking up, you have to learn a few things about the stages of sleep.

As you can see in the previous day and night's ultradian rhythm diagram, sleep is divided into two broad types; each of these types associating with its own physiological and neurological features.

### ***Rapid Eye Movement (REM) sleep***

The REM type sleep is where dreaming occurs. This level is also called **paradoxical sleep** because although the sleeper is exhibiting EEG waves similar to a waking state, and his brain oxygen consumption is higher than when he is awake, it is harder to arouse than at any other sleep stages.

We don't know what exactly the function of REM sleep is; but lack of it will impair our ability to learn complex tasks.

### ***Non-Rapid Eye Movement (NREM or non-REM) sleep***

The American Academy of Sleep Medicine (AASM) further divides NREM into three stages according to signs and brain waves activity:

- **N1 - NREM stage 1:** *Alpha* brain wave activity, this is the stage between sleep and wakefulness. The muscles are active, and the eyes roll slowly, opening and closing moderately.
- **N2 - NREM stage 2:** *Theta* brain waves activity, in this stage it gradually becomes harder to awaken the sleeper; also in this stage the alpha waves of the previous stage are interrupted by abrupt activity called sleep spindles and K-complexes.
- **N3 - NREM stage 3:** Formerly divided into stages 3 and 4, this stage is called slow-wave sleep (**SWS**). SWS is initiated in the pre-optic area and consists of *Delta* activity, high amplitude brain waves at less than 3.5 Hz.



The sleeper is less responsive to the environment; many environmental stimuli no longer produce any reactions.

**If you wake up from the N3 stage you will feel extremely drowsy and confused.**

Although a 90' nap is the most beneficial and restorative one, since your body and mind goes through all stages of sleep, in this workbook we are going to focus on the shorter version, the one we call **power nap**.

A power nap is a short revitalizing sleep which terminates before the occurrence of deep sleep or slow-wave sleep (SWS). The expression was coined by Cornell University social psychologist James Maas.

***The key to power napping is waking up before reaching the N3 deep sleep stage***

Now let's have a more detailed look at the various types of napping and the minimum effective nap length.

There are roughly five main categories of napping:

- **The 10-20 seconds fade out**; sleep studies haven't yet concluded whether there are any benefits to these brief fade out intervals.
- **The 5' micro nap**; is extremely effective at eliminating sleepiness. The National Roads and Motorists' Association estimates fatigue is involved at one out of six fatal road accidents. If you ever find yourself sleepy while driving, 5' of napping can save your life.
- **The 10' mini nap**; increases alertness, stamina, motor learning, and motor performance.
- **The 20' power-nap**; it has all the benefits of shorter naps, but it also clears the brain of useless information, helping you with long-term memory.
- **The 26' NASA-nap**; the famous one; has the same benefits as the classic 20' power nap.
- **The 90' full cycle nap**; slow wave N3 sleep is flooding you with the human growth hormones rejuvenating your body, while REM sleep boosts perceptual processing, learning and creativity

It's not hard to guess that the 90' full-cycle will give you the full benefits of napping.

But since for most of us it's quite difficult to get a 90' break during our day, the second best is the 20' power-nap, while the 10' mini-nap is still an option whenever time is running out.

If you want to dive more into the science and flavors of the nap, check the book "Take a Nap! Change Your Life" of Sara C. Mednick, Ph.D.; a leading authority and researcher at the Salk Institute on the study of napping.

## *Where to nap*

This can be the easiest or the hardest part for napping...

If you are lucky enough find yourself at home at midday use your bed or your couch; if there is some kind of sleeping or meditation room at your job, you are super, but any place where you will not get disturbed for 20' is fine.

Some other common (or less common) options are

- At the office gym; you can nap on a yoga mat.
- If you have your own office you can put a “Don’t disturb” sign for 20’ and nap sitting on your chair or lying on a yoga mat on your floor.
- Or you can book a small meeting room for 30’ or less
- If it’s summer time consider the nearby park
- Or the nearest library
- And of course you can nap at your car

If you cannot nap at your workplace you can consider napping on the bus or the train on your way back home. Get some isolation by putting on your sleeping mask and headphones, close your eyes and there you go.

Be creative and you’ll be compensated with an afternoon energy rush!

# *How to Nap*

Although napping is quite natural, it's also a skill that gets better and better with practice.

In the beginning it's quite normal to have difficulties falling asleep but don't worry; even relaxing deeply for 20 minutes or less can make a huge difference to your energy levels.

If napping comes natural to you don't have to follow all these steps

## *Go dark*

Blocking out light is essential for a good day's nap and the best option is to use a high quality sleep mask that suits you.

If you don't like the feeling of your eyes touching the fabric of the mask, you can choose a sleeping mask with eye cavities so that you can even open your eyes with the mask on, while your eye lashes are away from the fabric and you can even stare at the blackness.

The second best option is to put a small folded towel on your face in such a way that covers your eyes but it leaves your nose free for proper breathing

## *Block out noise*

Sound from your environment can disturb your napping and although you could try using earplugs, it's much better to use the *PowerNapFormula* special napping sessions.

These ambient sessions come with a bubbling water sound background designed to mask outside noise better than white noise does.

## *Posture*

Posture varies individually and you may find that a certain position is much more comfortable for your napping. Get accustomed to it, so your mind can create an association between this position and falling asleep.

If you are napping in sitting position you can:

- Lean back on your chair; you can use an inflatable travel pillow to support your head and it's a good idea to raise your feet too.
- Put your head on your desk; you can use a small pillow or just your arms.

## ***Relax Your Body***

Your muscles can carry a lot of tension that can keep you from a restful nap; here's a quick method to relax them:

- Take a deep breath (inhale) and tense at once all your big muscle groups (aka your feet, legs, abdomen, back, chest, arms and neck).
- Hold your breath and tension for a count of 7.
- Exhale fully, and relax your muscles feeling all sensation of tension releasing from your body.
- Repeat 3 or more times

Then relax your neck:

- Lean you head back gently focusing on relaxing your front neck muscles
- Keep it to a count of 10
- Lean your head forward focusing on relaxing your back neck muscles
- Keep it to a count of 10

Now relax your face:

- Tense the muscles in your forehead by raising your eyebrows as far as you can.
- Hold to a count of 7 and then relax.
- Shut tightly your eyelids and tense all you face muscles
- Hold to a count of 7 and then relax.
- Open your mouth as wide as you can to stretch your jaws muscles (jaws can hold a lot of tension and relaxing them relaxes the whole body)
- Hold to a count of 7 and then relax.
- Hold your jaw with your hand and rock it gently left and right focusing on relaxing the muscles around the hinges.
- Open your mouth slightly allowing you jaw to relax and hang loose

And finally:

- Open your mouth wide and YAWN soundly; this will further relax your jaws and will put you in the napping mood.

## ***Breathe***

Breathing is the key to deep relaxation, so if you find yourself too tensed for napping you can use this simple **7-11 breathing technique**.

- Inhale through your nose for a count of 7 expanding your belly. You should feel like blowing up a balloon inside your tummy; this is called diaphragmatic or abdominal breathing.
- Hold for a moment.
- Exhale through your nose or your mouth for a count of 11.
- This is one round; repeat five more times and feel your body relaxing deeper and deeper with each breath.

Keep in mind that you can count up to 7 or 11 at your own pace (as fast or as slow you feel comfortable).

The key for relaxation is keeping the exhale longer than the inhale. The more you practice the more effective this technique will be.

## ***Let go***

Allow yourself to fall asleep; please don't try; trying builds tension which is exactly the opposite of what you need. Remember you don't *have* to fall asleep every time you go for a nap; even relaxing deeply will have profound effects to your energy levels.

## ***Wake up on time***

Make sure you wake up on time; you can put an alarm at your mobile or (much better) you can use the **Power Nap Formula** ambient session that suits your nap interval.

These session recordings are designed not only to put you to sleep; they make sure that you wake up on time too.

## *Remove the Obstacles*

Here are some common obstacles that may be keeping you from napping and getting the energy boost you deserve.

### *Too much caffeine*

Too many coffees or caffeinated energy drinks can make you too aroused for napping and can even disturb your nocturnal sleep. Please keep in mind that caffeine does not restore your energy levels; it just blocks adenosine (a nucleoside that triggers the urge to sleep) from making you feel drowsy. And of course its effects wear out.

Napping in the other hand is a totally natural energy booster; with long lasting effects that don't wear out and of course with no side effects.

### *Heavy eating*

Avoid having a heavy lunch since a really full stomach can lead to indigestion and reflux that cripples you napping.

### *Mental blockages*

You may have some negative beliefs about napping; you may feel that napping time is unproductive time, or that napping is for lazy people.

But think for a moment; does that mean that all these famous nappers such as Leonardo Da Vinci, Brahms, Thomas Edison, Albert Einstein, Salvador Dali, Napoleon Bonaparte, Winston Churchill, John F. Kennedy, Ronald Reagan, Bill Clinton, etc. were lazy or unproductive?

Napping isn't for lazy people; **napping makes productive people even more productive.**



My own negative belief was that I was too busy for taking a nap; I had so many things to do that napping was a luxury that I couldn't afford.

But after experiencing the huge benefits of napping my motto changed to:

**"I'm so busy, that I need to nap."**

Here come some working tips & tricks for enhancing your naps...

# ***Napping Tips & Tricks***

## ***Schedule it***

There is an old quote saying “*what gets scheduled gets done*”. This works for everything and of course for napping. So put aside 15 – 20 minutes and invest them on your well-being by taking a nap.

## ***Be consistent***

It's important to nap about the same time every day, and if it's possible at the same place and in the same posture. This will form a connotation in your brain; making more and more easy to nap faster and deeper.

## ***Do not extend***

If it takes you some time to fall asleep, you may be tempted to extend your nap. Please don't. Napping on schedule will train yourself to fall asleep faster by sending your body the message that the sooner you fall asleep the more rest is going to get.

## ***Get comfortable***

If you don't have the luxury of a bed or at least a couch you can consider using a self-inflating air pad and an inflatable pillow. You can inflate them in less than a minute and they occupy minimum storage space when deflated.

## ***Cover up***

Since your body temperature falls when you sleep, it may be a good idea to cover up with a fleece blanket or just your jacket.

## ***Scan your body for tension***

Scan your body, beginning from your feet and moving upwards. Turn your attention to your leg and hips and observe how they feel. Move towards the center of your body, your stomach, your chest and your back; examine how they feel. If you find some tension imagine your muscles letting go and relax. Continue on your arms, shoulders and neck; observe and release tension. Then move to your head; relax your forehead, your eyes and your jaws. Finally take a moment to scan your whole body noticing how it feels as a whole. Allow it to relax thus allowing yourself to drift to sleep.

## ***Sink with exhale***

This is a very powerful technique that can help you fall asleep faster. Imagine anything that will introduce a sinking feeling to your body. For example you may imagine that you are a feather floating in the air and with every exhale you are moving downwards. Or that you are lying down in an elevator and with every exhale you are moving one floor downwards. Do some practice and you can make your body fall asleep in just a few exhales.

## ***Take a mental walk***

If you are finding your mind wondering in too many unwanted thoughts you can use the mental walk technique. Imagine you are taking a walk to a forest; beach or wherever it makes you feel relaxed. This can be a place that you had actually visited or can be a fictitious one.

For example, if you find yourself walking on a sandy beach (one of my favorites) allow yourself to immerse with all your senses. You can feel the warmth of the sun on your chest and the cool sand on your bare feet. Listen to the seagulls and the gentle splash the waves. How is the sun reflecting on the blue waters; can you taste the fresh air filling your lungs? Is this a deck chair under that tree? Cool, after this long walk it's time for a nap...

## ***Nappuccino***

If you find that's too difficult for you to wake up after your 20' power nap you can try the nappuccino formula; that is having a coffee or black tea just before napping. Since caffeine takes about 20 minutes to hit the bloodstream you'll find yourself waking up fully alert.

## ***Give it some time***

As we said before napping is a skill that gets better by practicing it. It's perfectly normal if you can't fall asleep the first couple or even the first ten times. Your 10<sup>th</sup> power nap will be better than your first couple ones and the 100<sup>th</sup> power nap will be better than your 10<sup>th</sup> one. Treat power napping as an investment on your well-being that will pay you huge dividends throughout your life.

# *The Sound Science for Napping Faster & Deeper*

Here you are about to learn how to use advanced sound technology to en-train your brain to nap faster and deeper.

As you may recall from the previous sections; there are three stages of sleep that each of them is marked by its own brainwave activity.

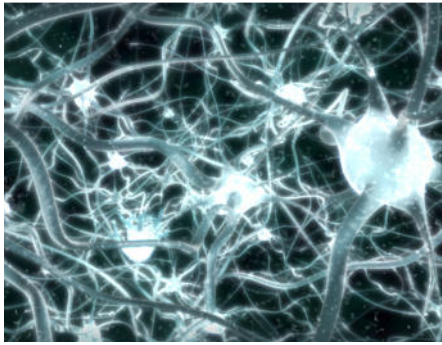
Now we are going to put that theory into practice after having a few words about brainwaves, mental states and their relation with napping.

## *Important Note*

Although the following couple of chapters may be quite technical, they are going to give you a **working understanding on how this workbook's napping recordings operate**.

If however you find all this brainwave technology stuff boring you can read it for taking a nap... ;)

In the other hand if you find them overwhelmingly technical you can skip theory and move directly into practice, by going to “*Train Your Brain to Nap Soundly*” chapter, where you will find a quick summary and working instructions to put theory into action.



The **human brain is not just a formless gel**; it is composed of billions of brain cells called neurons.

These **neurons are connected** in a highly complex three-dimensional network, communicating with each other by **exchanging electrochemical pulses**.

This produces an enormous amount of electrical activity in the brain, which can be detected using sensitive medical equipment (such as an electroencephalographer EEG), measuring electricity levels over areas of the scalp. **The combination of electrical activity of the brain is commonly called a Brain Wave Pattern**, because of its cyclic, "wave-like" nature.

Brain waves are observed and recorded by the EEG and **are directly associated with our mental and emotional wellbeing**.

Here are the **5 main brainwave types** with their associated mental states:

### ***Beta waves (12-30 Hz)***

Wide awake, this is generally the mental state most us are during the day and most of our waking lives. This state is important, since lack of sufficient Beta activity, can cause mental or emotional disorders such as depression, ADHD and insomnia. Stimulating Beta activity can improve emotional stability, energy levels, attentiveness and concentration.

### ***Alpha waves (8-12 Hz)***

The doorstep to N1 sleep stage; very relaxed, you may feel awake or drowsy at this stage, according to the sleep pressure you have accumulated. You are usually in this state when you wake up in the morning, when relaxing or meditating and just before sleep.

### ***Theta waves (4 - 8 Hz)***

Light N2 sleep, or deep meditation. Theta is the border between the conscious and the subconscious world.

### ***Delta waves (0.2 - 4 Hz)***

Deep dreamless N3 stage sleep, the body is healing itself and "resetting" its internal clocks. We do not dream in this state and we are completely unconscious.

### ***Gamma waves (30 - 100 Hz)***

The fastest documented brainwave frequency with the smallest amplitude on an E.E.G.; they are considered the brain's information and sensory-binding oscillation. High amount of Gamma brainwaves has been associated with high levels of intelligence and self-control, being compassionate and in a stage of natural happiness.

## Natural Napping Rhythms



When our brain is given a stimulus, through the ears, eyes or other senses, it is responding by emitting an electrical charge, called a Cortical Evoked Response.

These electrical responses travel throughout our brain to become what we "see and hear" and can be measured using sensitive electrodes attached to the scalp.

So **when our brain is presented with a rhythmic stimulus, such as a drum beat for example, this rhythm is reproduced in the brain** in the form of these electrical impulses.

- If the rhythm becomes fast and consistent enough, it can start to resemble the natural internal rhythms of the brain, called brainwaves.
- When this happens, the brain responds by synchronizing its own electric cycles to the same rhythm. This is commonly called the Frequency Following Response.
- This phenomenon can be useful because brainwaves are very much related to mental states and **by changing the stimulating rhythm we can change our brainwaves pattern and as a result we can change our mental state.**
- This phenomenon is called **Brainwave Entrainment.**
- For example, a 7 Hz brainwave is associated with N2 theta sleep, so a 7 Hz sound pattern would help reproduce the sleep state in your brain, thus helping you nap.
- The same concept can be applied to many other mental states, including concentration, creativity, relaxation and meditation.

If you listen closely to any of the *Power Nap Formula* session recordings, you will **hear small, rapid pulses of sound.** As the session progresses, the frequency rate of these pulses is changing slowly, thereby changing your brainwave patterns **and guiding you first to napping and then to waking you up.**



## ***Safety – Who Should Not Use These Recordings***

Although this technology is very safe, some people should not be listening to the ***Power Nap Formula*** recordings.

(The same thing happens in some action video games that can induce brainwave entrainment through flashing colours and fast switching images).

Those who should not use these recording include:

- Those who are prone to or have had seizures
- Epileptic
- Pregnant
- Wear a pacemaker
- Individuals under the influence of medication or drugs should consult a physician before the use of this method.

Children under the age of 18 are to be examined by a physician for epilepsy or illnesses that may contribute to seizures prior to the listening to the ***Power Nap Formula*** recordings, as they are more susceptible to seizures.

***DO NOT LISTEN TO ANY OF THE SLEEP INDUCING OR RELAXATION RECORDINGS WHILE DRIVING OR OPERATING MACHINERY***

# *Train Your Brain to Nap Soundly*

In order to nap, your brain wave activity has to slow down from the beta stage where you are wide awake to the alpha state (N1) and then drift to the theta state (N2).

## *Quick Brain Wave Sleep Rhythms Summary*

- Brain wave activity is the combination of the electrical activity of the brain measured on the scalp's surface by an electroencephalographer (EEG).
- These brain wave patterns are directly associated with your mental and emotional state and of course with the stages of sleep.
- You can entrain our brain waves by using especially engineered rhythmic sound stimulus which synchronizes with the brain's electrical cycles.
- By changing the stimulating rhythm you can change your brain wave's pattern and as a result you can guide your brain to the desired sleeping stages.
- You should not listen to sleep inducing and relaxation recording if you are prone to seizures, epileptic, pregnant or wear a pacemaker.

The ***Power Nap Formula*** ambient sessions that come with this workbook are designed to do exactly this. They are not just ambient relaxing music; **they also contain a range of special engineered frequencies, designed to shift your brainwave rhythms**, drifting you to fast napping and then gently waking you up.

Download your mp3 napping session recordings that come along with this method and put them to your smartphone, your mp3 player or burn them to a CD to have them handy for your naps.

You can download your sessions from the links which are in the email you received when you purchased the ***Power Nap Formula*** method.

If you encounter any problem with the power nap sessions just send an email at:

**[support@powernapformula.com](mailto:support@powernapformula.com)**

Since your nap time slot may vary from 90 minutes to just 10 or even 5 minutes, there are five mp3 ambient sessions to best suit your needs, which are:

- **The 90' Full-Nap session**; for the lucky ones.
- **The 26' NASA-Nap session**; the famous one.
- **The 20' Power-Nap session**; for most of us.
- **The 15' Power-Nap session**; it's better to go for the 20' one but 15' is fine too.
- **The 10' Mini-Nap session**; use it you haven't got these 15' time.
- **The 5' Micro-Relaxation session**, since it's quite hard to fall asleep in less than five minutes, this session will actually give you a brief rejuvenating relaxation break.

Now that you've downloaded your mp3 sessions, you are ready to take your first power nap using the ***Power Nap Formula***.

# *The Power Nap Formula*

Here comes the Power Nap Formula; how to put all those you have learned into action:

- ❖ **Plan you nap**; select the place in advance so when the time comes you know exactly where to go. This place can be your car, your office or any other place where you can block distractions for 20'.
- ❖ **Pick the right time**; keep an eye on your ultradian 20' sleep window. You may find 2 p.m. is working fine, while 2:30 p.m. is not.
- ❖ **Put on your napping recording**; you may listen to your *PowerNapFormula* sessions with or without headphones, although headphones are recommended, listening through speakers is fine.
- ❖ **Adjust the volume at a comfortable level**; if you are napping in a noisy environment turn up the volume to mask external sounds. Don't turn it up too loud, comfort is the most important. **If in doubt adjust to a lower volume.**
- ❖ **Get at your favorite position**; you may find that a certain position is much more favorable for napping. Get accustomed to it, so your mind will create an association between this position and napping.
- ❖ **Block out light**; use a sleeping mask or a small towel over your eyes. This can make a HUGE difference in your ability to fall asleep.
- ❖ **Make a silent affirmation**: "I'm about to drift to sleep for xx minutes. After these xx minutes I'll wake up totally rested and full of energy for the rest of my day". (xx stands for the number of minutes you're about to nap)
- ❖ **Relax your body**; take a deep breath, exhale and let your body relax. Bring your awareness and consciously relax your shoulders, your neck and especially your face and jaw muscles.
- ❖ **Fully open your mouth and YAWN soundly**; this will further relax your jaws (there's a lot of tension there) and will put you in a napping mood.
- ❖ **Let go**; don't try to fall asleep, just focus on your breath or on these small, rapid pulses of sound. When thoughts are coming don't try to push them back, just observe them allowing them to come and go like clouds in the sky. If you find yourself get caught by any kind of unpleasant thoughts, gently bring your focus back to your breathing and/or the sound pulses.

You should fall asleep fast, but even if you sometimes don't, you will deeply relax and you will come back fully rejuvenated.

**Don't worry about waking up; these sessions are designed to gently bring you back** by accelerating your brainwaves and there are also these waking up sounds at the end of each session. There are some gentle gong sounds to start with, but that turns to an alarm clock sound to keep you from oversleeping.

***IMPORTANT:*** *If at any time you feel any form of major discomfort while listening to these sessions please stop immediately and contact us at:*

**[support@powernapformula.com](mailto:support@powernapformula.com)**

We will send you a brief questionnaire to help us understand what might be happening so we can make the appropriate suggestions.

***Under no circumstances should you drive a car or operate potentially dangerous machinery while listening to these sessions.***

# *Napping At Work*

According to the Society for Human Resource Management, a 2011 employee benefits survey of 600 American companies found that during that year there was a 20% increase of the workplaces that had nap rooms, in comparison with the previous one.

The absolute numbers are not yet big; it's 6% for 2011 in comparison with 5% for 2010 but that's 20% up; which is a significant trend.

Yet 95% of employers surveyed, still shy away from the idea of allowing employees resting at work but fortunately things begin to change.

More and more employers realize the benefits of napping:

- Boosts productivity; NASA napping studies found that napping increases alertness 100% and productivity 13%
- It's a new trend being offered by leading-edge, innovative companies and it's a competitive advantage for attracting and retaining top level candidates.
- Reduces absent days; lack of sleep weakens the immune system, so napping makes employees healthier, thus reducing fatigue related illnesses.
- It's cheap; napping contributes to the wellbeing of employees at near zero running costs. You don't have to hire a wellbeing specialist or invest on building and maintaining a gym; a quiet room with a few couches or reclining chairs works fine.

Napping will eventually become as common as lunch break is.

Lunch break was officially given to industrial workers for increasing their productivity by restoring physical strength for the afternoon shift.

Napping is eventually given to information workers for increasing their productivity by restoring their mental capacity for the second round.

You can consider offering this workbook to your employer, your HR department or to your well-being committee. Even if you don't see an immediate response, you may plant a seed for the future.

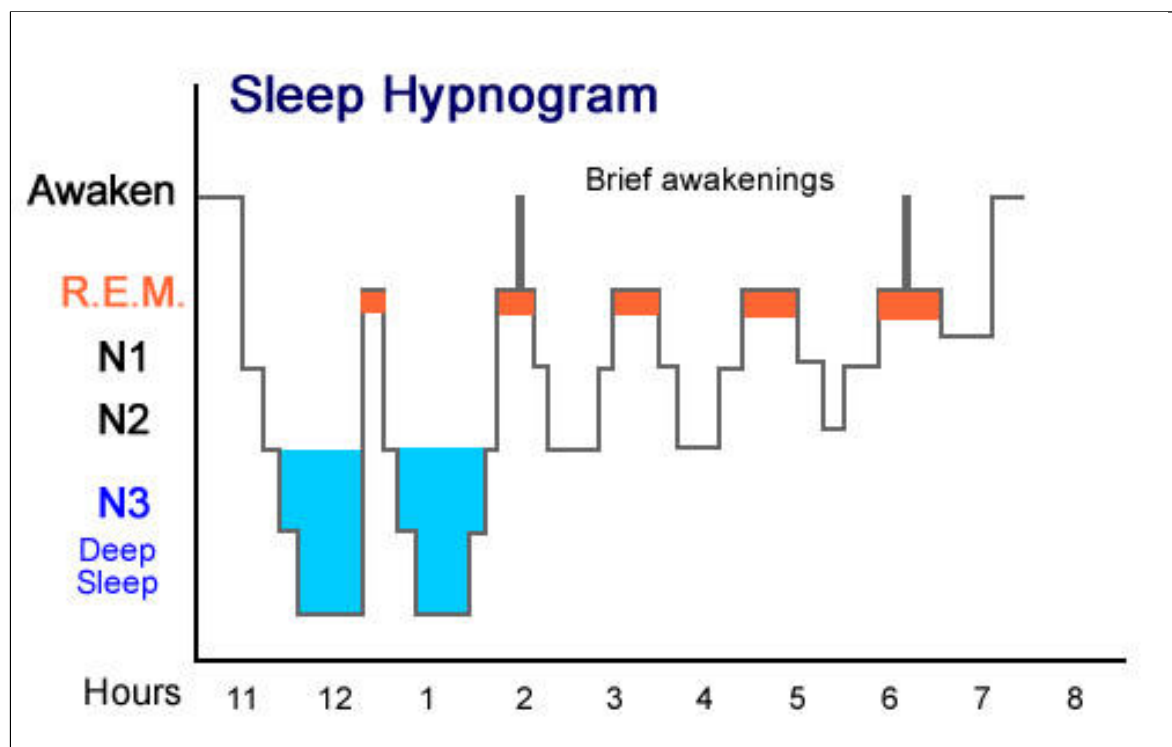
## Reducing Sleep Time

Sometimes you may be up to a major project or there may be deadlines that absolutely force to cut back on sleep time.

This chapter discusses some advanced techniques to help reduce overall sleep time with the minimum side effects.

These techniques are not for the long term and are not for everyone; they require some good knowledge about your individual sleep patterns and they may put stress on you during the adaptation phase.

So here's the theory...



As you can see at the above diagram, our sleep consists by a number of continuous sleep cycles. That means that when you fall asleep you pass through the following phases of sleep: N1->N2->N3->N2->N1->REM and that is one sleep cycle, which lasts about 90 minutes.

The idea for cutting back your overall sleep time, is to replace one or two of your 90' nocturnal sleep cycles with two or three 20' naps. So if you cut 2 x 90' cycles and replace them with 3 x 20' naps you get a net gain of a couple of hours each and every day. This couple of hours sums to an extra working day (14 hours) per week

Since nature makes sure you are getting your precious N3 stage deep sleep during your first couple or maybe three cycles, the idea behind **polyphasic sleep is to reduce core sleep at 2-3 sleeping cycles and introduce 20' naps during the day** for relieving sleep pressure and getting the REM sleep you need.

Bear in mind that if you are drinking alcohol or a lot of caffeine you must completely withdraw from both of them, at least at the adaptation phases, since they both mess with the above sleep stages. You may try can add them again later on but in very moderate quantities.

But first you have to determine the length of your sleep cycle. Most people's cycle is about 90 minutes but it varies from person to person, it can be from 60 to 120 minutes. Here's how you can determine yours.

- ❖ Pick the night before a day that you don't have to wake up using an alarm clock. Jot down the time you went to bed; let's say 11:00pm.
- ❖ Next morning jot down the time you woke up and how much time you estimate it took you to fall asleep; let's say you woke up at 7:05am and it took you about 10 minutes to fall asleep.  
(Note: If it took you more than 30 minutes to fall asleep discard this night from calculations)
- ❖ For example, from 11pm to 7:05am passed 8 hours and 5 minutes
- ❖ That means  $8 \times 60 + 5 = 485$  minutes
- ❖ We subtract the 10' it took you to fall asleep and we get  $485 - 10 = 475'$  net sleep time.
- ❖ We divide 475 by 90 which is the average sleep cycle and we get  $475 / 90 = 5.28$
- ❖ We approximate 5.28 to its closest integer which is 5, that means that you slept 5 full cycles
- ❖ Finally we divide your net sleep time with 5 (the number of your calculated sleep cycles) to find your personal sleep cycle duration; so  $475 / 5 = \mathbf{95}$  **minutes**.
- ❖ Do this couple more times and take the average.



Sometimes it may be tricky to calculate your cycle's length. For example if you slept for 425' this could mean five 85' cycles or four 106' cycles.

You can validate your cycle length by taking an afternoon nap. Make a note of the time you go for your nap, the time you woke up and an estimation of the time it took you to fall asleep.

If you woke up naturally at the end of your sleep cycle you should feel rested and alert. If you feel drowsy (meaning that didn't complete a full cycle or entered a second one), discard the data.

Do it a couple more times to validate your cycle's length you calculated with the first method.

## *The Pros and Cons of Polyphasic Sleep*

As we said before, polyphasic sleep isn't for everyone and is not something you can do forever; yet it's a very effective sleep pattern to get you through deadlines, exams and other situations that require you to skimp on sleep.

Although going biphasic by adding a midday nap can benefit everybody, going polyphasic to cut down sleep time requires some serious effort; thus stressing your body through the adaptation period.

In the other hand, polyphasic sleep can add almost one work day (14 hours) of time to each and every of your weeks...

Here come the pros of polyphasic sleep:

- ✓ More hours to do things you currently don't have the time to do
- ✓ More insight and appreciation of the passing of time as opposed to day-by-day awareness.
- ✓ Being a night owl and an early bird at the same time.
- ✓ Watching the sunrise every day.

And of course there are some cons too...

- Sleepiness and stress during the adaptation phase.
- Since you don't want to miss naps, you'll have to plan your day around them.
- Inconvenient naps when you're out of the house; you'll have to learn to sleep in your car, a chair etc.
- Although you're going to have more time overall, you may have less time with friends and family (except they decide to go polyphasic too).

Although it's up to you to decide how far and for how long you want to walk this polyphasic path, cutting one hour of sleep is absolutely feasible; it doesn't put too much stress and it can easily be done almost by everyone.

## *Going from monophasic to biphasic for 1 hour gain*

The first step is to go from monophasic sleep (getting all your sleep in one portion) to biphasic, by replacing one core sleep cycle with a midday nap.

Let's assume that you are currently sleeping about 7 ½ hours (11:30 p.m. – 7:00 a.m.) each night. Assuming a 90' cycle this means you are getting 5 cycles of core sleep every night.

So your first step will be to go from 7 ½ to 6 hours of core sleep adding a 20' power nap around midday. So your next sleep schedule is about to be:

- ❖ **12:00 a.m. - 6:00 a.m.:** 6 hours of core sleep
- ❖ **01:30 p.m.** - 20' nap

With this schedule you are getting a little less than 6 ½ hours total sleep time instead of your current 7 ½.

You should allow at least one week for adaptation. At the first days it's totally normal to feel sleepy but hopefully you should adapt within a week or so.

## *Going from biphasic to polyphasic for 2 hours gain*

After you get yourself well adapted to biphasic sleep you could try cutting one more sleep cycle adding a couple of naps. The basic idea behind creating your polyphasic schedule is to decide on your core sleep time and then add three naps throughout the day.

If you are a nine-to-five employee, you have to adapt your schedule according to your lunch break. Here are two basic options according to the time you prefer to have your core sleep:

### **Early bedtime**

- ❖ **08:30 p.m. - 1:00 a.m.:** 4 ½ hours of core sleep
- ❖ **04:00 a.m.** - 20' nap
- ❖ **08:00 a.m.** - 20' nap
- ❖ **01.30 p.m.** - 20' nap

### **Late bedtime**

- ❖ **11:30 p.m. - 04:00 a.m.:** 4 ½ hours of core sleep
- ❖ **08:00 a.m.** - 20' nap
- ❖ **01:30 p.m.** - 20' nap
- ❖ **06:30 p.m.** - 20' nap

With this schedule you are getting about 5 ½ hours total sleep time instead of your current 7 ½.

**This is a harder transition than the first one** and you should again allow at least one week for adaptation.

Although during the first days it's totally normal to feel sleepy; if you still find difficulty to adapt after one week you should **consider experimenting changing nap times** to find what suits you best.

There more than a few polyphasic sleep protocols than these we covered, the most extreme is the Uberman one that schedules just six 20' naps around the clock, going for just 2 hours of total sleep, but this is you know... for Ubermen and Uberwomen...

## ***Tips and warnings***

- If for some reason you get sick or injured, your body will need more sleep for healing itself, so add cycles to your core sleep until you fully recover. The trick is to keep your naps too, so as soon you recover you can come back to your reduced sleep schedule.
- Adaptation stages will probably put stress on your body and this stress can provoke anxiety. It's better to engage yourself in this project during a relatively calm period of your life; before the race for deadlines or exams.

## ***IMPORTANT SAFETY WARNING***

*During adaptation period you should avoid driving and operating potentially dangerous machinery at any cost. Don't take that light; it's extremely important for your safety. You may remember that according to the NRMA, fatigue is involved at one out of six fatal road accidents.*

*So avoid driving and if you ever find yourself sleepy while driving, pull over immediately and take a nap.*

## *Review What You Learned*

Congratulations power napper!

You are now ready to boost your energy by employing power napping in your life.

Let's just quickly recap what we've covered.

We began by discussing what power napping can do for you and how it can increase your alertness, relieve stress and anxiety, enhance your productivity plus creativity and improve your overall mood and outlook towards life.

Then we dived to the when's, the where's and, the most important of all, the timing for naps. We learned about the ultradian rhythms, the sleep cycles and what all these have to do with your nap's timing and length.

We delved into some brainwave theory and how these rhythms are affecting your sleep. You learned about brainwave entrainment and how especially engineered sound frequencies can work with your brainwave's rhythms, helping you not only to fall asleep faster but waking you up too.

Then we put all these theories into action, by giving you the power nap formula; the (sound) tools and the step by step instructions to help you nap faster and deeper with brainwave vibes.

Finally you learned how you can cut down sleep time and create more time by going first biphasic and later polyphasic. You learned how polyphasic sleep works, the pros and cons of going polyphasic and the action steps you have to follow for this path.

## *A Few Last Words*

This is the end of this workbook, I hope you enjoyed it and you have already put these techniques into use.

You can download the *PowerNapFormula* accompanying ambient sessions and more at:

[www.powernapformula.com](http://www.powernapformula.com)

For any questions and for any further info please contact me at:

[bill@billvaland.com](mailto:bill@billvaland.com)

I read all the emails I get and I do my best to help.



To your sound power naps!

Bill Valandreas  
Power Napper